CHSA is a forum for scholars and professionals to meet and exchange ideas and research. Membership is open to a wide range of construction related disciplines involved in the planning, development, design, construction, operation and preservation of buildings and engineering infrastructure.

SEE YOU AT THE UNIVERSITY OF MARYLAND!

6th BIENNIAL

TOP TEN WASHINGTON DC

1. Go behind-the-scenes visit to Union Station, Arlington National Cemetery or the National Cathedral on a CHSA 6th Biennial tour!
2. National Air and Space Museum
3. Ten Smithsonian museums located on the National Mall - pick up your free guide at the Smithsonian Visitors Center
4. The Great Inka Road: Engineering an Empire at the National Museum of the American Indian
6. Pictures of the Year: 75 Years of the World’s Best Photography at the Newseum
7. Jefferson Memorial, inspired by the Pantheon in Rome.
8. Mount Vernon, the beautiful riverside estate of George Washington.
9. Visit the giant pandas at the National Zoo.
10. See the two newest portraits of President and Mrs. Obama at the National Portrait Gallery

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Keynotes, Tours and AGC Centennial program not eligible for AIA / CES

Registration is currently open at https://chsamembership.wildapricot.org/

REGISTRATION FEES
CHSA member - $185 ; Non-CHSA member - $240
Non-CHSA - includes $20 discounted one-year individual membership, valued at $75
Student - $35

Keynotes Pg 2
AGC Building on Experience Pg 3, 5
Schedule / Committees Pg 4, 7
Tours Pg 6,8
Sponsors Pg 8
**KEYNOTES**

**Carl Lounsbury**

**Thomas E. Boothby**

**10 TRACKS**

- Prefabrication in Mid-Twentieth Century America
- Materials and Methods in the United States: 19th
- Fabrication and Use of Materials
- Management of Institutional Construction
- Vernacular Construction Techniques in the Americas
- Bridge and Vault Construction
- Construction Education and Theory
- Construction of American Landscape Environments and Infrastructure
- Houses and Housing in the United States
- Materials and Methods in the United States: 20th c

**INNOVATION AND TRADITION: THE TRANSFORMATION OF THE BUILDING PROCESS IN THE EARLY CHESAPEAKE**

**Carl Lounsbury** retired as the Senior Architectural Historian in the Architectural and Archaeological Research Department at the Colonial Williamsburg Foundation in December 2016. Over a 35-year career at Colonial Williamsburg, he researched English and colonial American public buildings, churches, meetinghouses, and theatres; and the terminology, practice, and technology of preindustrial building. He was involved in the restoration of many buildings in Williamsburg’s Historic Area. Lounsbury is an Adjunct Associate Professor of History at the College of William and Mary and earned his undergraduate degree in history and English from the University of North Carolina at Chapel Hill and received his MA and PhD from George Washington University. In addition to William and Mary, he has taught at the University of Mary Washington, VCU, and the University of Virginia.

**‘ARS SINE Scientia nihil est’ AND OTHER DELUSIONS OF THE SECOND MILLENIUM**

**Thomas E. Boothby** is Professor of Architectural Engineering at The Pennsylvania State University, a post he has occupied for the past 26 years. His research interests are focused on history of construction. He has examined masonry bridges in the US, iron bridges in the US, and medieval and Early Christian churches in Europe. His current interests include the understanding of empirical design in ancient through modern engineering. Dr. Boothby has authored two books, Engineering Iron and Stone (2015), a summary of the engineering design methods used in the late nineteenth century, and Empirical Design for Architects, Engineers, and Builders (to appear, June 2018), a textbook of empirical design.
The Construction History Society of America, with support from AGC of America, celebrates this occasion at their 6th Biennial Meeting with a special session on Thursday, May 24, 2018.

Kenneth D. Durr, Vice President, History Services; History Associates
Kenneth D. Durr started with History Associates in 1991. He oversees a wide range of projects including books and monographs, on-line histories and time lines, chronologies, and oral history programs. Dr. Durr also has an extensive background in the history of U.S. financial regulation, particularly the Federal Reserve and the Securities and Exchange Commission. He earned a bachelor’s degree in American studies at Kent State University and holds master’s and doctoral degrees in twentieth-century American political and social history from American University, where he has also served as an adjunct professor.

Sara E. Wermiel, Independent Scholar, Historic Preservation Consultant and Educator
Sara is an independent scholar, historic preservation consultant, and teacher. Her specialties are the history of nineteenth-century American technology, industrialization, and urbanization. She has written many articles and a book on the main subjects of her research: structural fire protection and the development of new construction materials and assemblies in the nineteenth century. She also has researched and published on the history of general contracting, building typologies (e.g. historic warehouses, light- houses), and business history topics (fire insurance and textile industries in the nineteenth century). Dr. Wermiel is active in the fields of construction history and industrial heritage. Her teaching has focused on historical construction materials and assemblies, and policies and programs to protect built heritage. She received a B. A. from Oberlin College, Oberlin, Ohio; professional degree in urban planning (Master of Urban Planning) from Hunter College, City University of New York; and doctorate in urban history and history of technology from the Massachusetts Institute of Technology, Cambridge, Massachusetts.

Scott Lewis, Projects Editor, Engineering News-Record
Scott produces quarterly features for ENR on world record structures, such as green roofs, domes, and immersed-tube tunnels. He has contributed retrospectives about the birth of the Interstate Highway System and the first New York City subway. He has been team leader on special reports about dream projects and workers’ voices. And he contributes market sector overviews to ENR’s Sourcebook issues. Before joining ENR he was a researcher with NBC Nightly News.

continued on page 5
6th Biennial SCHEDULE / University of Maryland

All events held at the Architecture Building – 3835 Campus Drive, College Park MD (at Campus Drive and Mowatt Lane)
Abstract presentations: 20 minutes in length with 10 minutes Q&A following

### Schedule at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Thursday, May 24</th>
<th>Friday, May 25</th>
<th>Saturday, May 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td></td>
<td>TRACK 3: ARC 1101</td>
<td>7 - 8 am CHSA Management Cmte Meeting</td>
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<tr>
<td>8:30 AM</td>
<td></td>
<td>Materials and Methods: USA 19th C</td>
<td>8 - 9 am CHSA Members Meeting</td>
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<tr>
<td>9:00 AM</td>
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<td>TRACK 4: ARC 1103</td>
<td>All are Invited! ARC 204</td>
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<tr>
<td>9:30 AM</td>
<td></td>
<td>Bridge and Vault Construction</td>
<td>KEYNOTE - ARC 204</td>
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<tr>
<td>10:00 AM</td>
<td></td>
<td>TRACK 5: ARC 1105</td>
<td>Thomas E. Boothby</td>
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<tr>
<td>10:30 AM</td>
<td></td>
<td>Landscape Environments / Infrastructure</td>
<td>COFFEE BREAK - ARC 204 LOBBY</td>
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<tr>
<td>11:00 AM</td>
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<td>TRACK 6: ARC 1101</td>
<td>TRACK 9: ARC 1101</td>
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<tr>
<td>11:30 AM</td>
<td></td>
<td>Materials and Methods: USA 20th C</td>
<td>Prefabrication in Mid-20thC America</td>
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<tr>
<td>12:00 PM</td>
<td></td>
<td>TRACK 7: ARC 1103</td>
<td>TRACK 10: ARC 1103</td>
</tr>
<tr>
<td>12:30 PM</td>
<td></td>
<td>Management of Institutional Construction</td>
<td>Houses and Housing / United States</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>WELCOME / INTRODUCTION - ARC 204</td>
<td>TRACK 8: ARC 1105</td>
<td>CLOSING COMMENTS ARC 204</td>
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<tr>
<td>1:30 PM</td>
<td>KEYNOTE - ARC 204</td>
<td>Vernacular Construction Techniques</td>
<td>ARC 204</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>TRACK 1: ARC 1101</td>
<td>TOURS</td>
<td>ARC 204 LOBBY</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Construction Education and Theory</td>
<td>Washington National Cathedral</td>
<td>ARC 204 LOBBY</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>TRACK 2: ARC 1103</td>
<td>Behind-the-Scenes</td>
<td>COFFEE BREAK - ARC 204 LOBBY</td>
</tr>
<tr>
<td>3:30 PM</td>
<td>Fabrication and Use of Materials</td>
<td>Historic Lighting Design at Union Station</td>
<td>TRACK 4: ARC 1101</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>COFFEE BREAK - ARC 204 LOBBY</td>
<td>Rich History of General Montgomery C. Meigs at Arlington National Cemetery</td>
<td>TRACK 5: ARC 1103</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>100 YEARS: BUILDING ON EXPERIENCE</td>
<td>TRACK 6: ARC 1103</td>
<td>Landscape Environments / Infrastructure</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>Celebrating AGC’s Centennial ARC 204</td>
<td>TRACK 7: ARC 1105</td>
<td>TRACK 8: ARC 1105</td>
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<tr>
<td>5:30 PM</td>
<td>Reception Following ARC 1111</td>
<td>Prefabrication in Mid-20thC America</td>
<td>Vernacular Construction Techniques</td>
</tr>
<tr>
<td>6:00 PM</td>
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<td>TRACK 9: ARC 1101</td>
<td>TRACK 10: ARC 1103</td>
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<tr>
<td>7:30 PM</td>
<td></td>
<td>Prefabrication in Mid-20thC America</td>
<td>Houses and Housing / United States</td>
</tr>
</tbody>
</table>

**A BIG THANK YOU to the CHSA MEMBERS, FRIENDS and VOLUNTEERS in our 6th BIENNIAL COMMITTEES**

**PLANNING COMMITTEE**

Brian Bowen  
Jeffrey Beard  
Ben Hays  
Benjamin Ibarra Sevilla  
Christopher Marston  
Thomas Leslie  
Tom Vitanza  
Richard Etlin  
Brian Kelly  
James Shepherd  
Melanie Feerst

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(book soon - rates have gone down!)

The Hotel at the University of Maryland
1-301-277-7777
7777 Baltimore Ave, College Park MD 20740
(on campus)
$244 per night plus tax (standard)

UMD provided this link
for hotel reservations
http://www.cam-
pustravel.com/universi-
ty/umdconf/index.html

AGC: Building on Experience (continued)

William E. Reifsteck II, DBIA, CRIS,
Director of Preconstruction, Webcor Builders
Bill is a nationally renowned Construction Executive having been awarded the Design-Build Distinguished
Leadership Award by DBIA in 2010 celebrating his over 35 years of Leadership in the construction industry.
Bill has participated in projects in the Industrial, Healthcare, Higher Education and Public Sector. He has
directed the industrial business unit of a multi-national Design-Build Contractor. Bill has been nationally and
internationally recognized as a leader in several construction trade associations and has authored several
articles on the construction “Best Practices”. Bill is the author of the critically acclaimed historical book on
the construction of Notre Dame Stadium. Bill is currently Director of Preconstruction services at Webcor
Builders, a Design-Builder and General Contractor.

ABOUT THE AGC

The Associated General Contractors of America (AGC) is the leading associ-
ation for the construction industry. AGC represents more than 26,000 firms,
including over 6,500 of America’s leading general contractors, and over 9,000
specialty-contracting firms. More than 10,500 service providers and suppliers
are also associated with AGC, all through a nationwide network of chapters.
WASHINGTON NATIONAL CATHEDRAL
BEHIND-THE-SCENES

See our Nation’s Cathedral and a view of Washington, DC like you’ve never seen before on a two hour behind the scenes private tour of the Washington National Cathedral. The tour will be led by James W. Shepherd, AIA, LEED, Director of Preservation and Facilities at the Cathedral and Joe Alonso, the Head Stone Mason. They will give you special access to the highest heights of the towers to the balcony of the Rose window and everything in between. The tour will include information about the history of the Cathedral, stories of the construction, the 2011 earthquake damage and the repairs that are underway.

James W. Shepherd AIA, LEED, Director of Preservation and Facilities, Washington National Cathedral

Joe Alonso, Head Stone Mason, Washington National Cathedral

RICH HISTORY OF GENERAL MONTGOMERY D. MEIGS WORK AT ARLINGTON NATIONAL CEMETERY

This tour to Arlington National Cemetery highlights the rich history of General Montgomery C. Meigs’ work. Arlington National Cemetery Tours, Inc. provides the transportation with site access and expertise well beyond the standard tour. Stopping at the Ord & Weitzel gate to see the U.S. Marine Corps War Memorial, and how the original sandstone columns and entablature from the portico of the 1818-1820 War Department Building were reused, deconstructed, and are being conserved in preparation for their reassembly to serve once again as gateways. Near Arlington House, in what was once part of its famous rose garden, stands a monument dedicated to the unknown soldiers who died in the Civil War. The monument, dedicated in September 1866, was the first memorial at Arlington to be dedicated to unidentified soldiers who had died in battle. Other sites visited are the 1873 Tanner Amphitheater, USS Maine Memorial, gravesite of General Meigs and his son, Lieutenant John R. Meigs, President John F. Kennedy gravesite, and the Arlington House (The Robert E. Lee Memorial).

Christopher H. Marston, HAER Architect, Heritage Documentation Programs, National Park Service

Rebecca L. Stevens, AIA, Cultural Resources Manager, Arlington National Cemetery

HISTORIC LIGHTING DESIGN AT WASHINGTON UNION STATION: D.H. BURNHAM & COMPANY’S CHALLENGES AND CREATIVE SOLUTIONS

In 1907, D.H. Burnham & Co.’s Beaux-Arts Washington Union Station opened to immense fanfare and praise in response to nearly every aspect of the building’s design, including the innovative lighting design. Throughout the public spaces of the station, lead architect Peirce Anderson maximized the amount of natural light in the station during the day through the strategic use of skylights and replicated the effects of natural light at night using concealed and ornamental lighting elements.

Continued on Page 8...

SIGN UP FOR TOURS HTTPS://WWW.SURVEYMONKEY.COM/R/Y3Q8VCC
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6th BIENNIAL PRESENTATIONS

Track 1 - Construction Education and Theory

When Construction History is Construction Theory - Jean Baptiste Rondelet and the Origins of Architectural Science
Franca Trubiano, Ordre des Architectes du Quebec, AssocProf, U of Penn

The Construction History through Mexican Periodicals and Journals in the first half of the 20th Century
Abe Yillah Román Alvarado, PhD, Professor, Department of Architecture, NAUM

Tuskegee University’s Role in Construction Education History as the Oldest US Construction Bachelor’s Degree
Rogers Hunt III, MEng. Constr Science Dept, Assistant Professor, Tuskegee U
Joel Wao, Tuskegee University
Kimberly Bivins, Tuskegee University

A Preservationist Perspective on Construction Detailing
Joseph Caputo, AIA, SPRAT Level 1

Track 2 - Fabrication and Use of Materials

Roanoid Plastics as a Symbol of Luxury and Modernity on the Queen Mary
Nicole Nietzel, Independent Researcher

History of the Use of Terra Cotta in Buildings
Rachel Will; Wiss, Janney, Elstner, Associates, Inc.

History of the Use of Copper in Buildings
Rachel Will; Wiss, Janney, Elstner, Associates, Inc.

Track 3 - Materials and Methods in the United States: 19th C

Century-Old Industry in Indiana: Brick Manufacture in Periodic (Beehive) Kilns
Cynthia Brubaker, Preservation Developer, The I Fell Building

Pleasant Hill Baptist Church: an Emancipation Era Example of Institutional Single-Wall Construction
Michael O’Brien, Department of Architecture, Texas A&M University
Andrew Billingsly, Texas A&M Center for Heritage Conservation

Understanding the Skeleton – The Interior of 19th Century Pegasus Sculptures
Kate Cowing, AIA, Managing Director, Materials Conservation Co., LLC

Track 4 - Bridge and Vault Construction

Le Pont de Bercy: A Bridge in Three Acts
Andréa Livi Smith, PhD, AssocProf & Chair, Department of Historic Preservation, University of Maryland

A Critical Review of the Construction Masonry Techniques of the Historical Los Esclavos Bridge in Guatemala
Sandra Hernandez, Texas A&M University
Ahmed K. Ali, Texas A&M University

Gaussian Vault Construction in Eladio Dieste’s Work During the Civico-Military Dictatorship in Uruguay
Frederico Garcia Lammers, AsstProf, S Dakota State, Department of Arch

Track 5 - Construction of American Landscape Environments and Infrastructure

From “A Giant and Intolerable Nuisance” to the Tidal Basin: The Reclamation of the Potomac Flats
Jostine Christianson, Historian, Heritage Documentation Programs, NPS

Absolutely Unique in its Scope: The Metropolitan Boston Water Works Dry-plate Photographs
Dennis J. De Witt, Past-President, Metropolitan Waterworks Museum, Boston

Track 6 - Materials and Methods in the United States: 20th C

The Birmingham Alabama Builders Strike of 1970
Lauren Redden, MBC, McWhorter School of Building Science, Auburn University

Underpinning, Shoring, and Earth Retention Development late 19th - 21st C
Marvin Levine, Levine Companies

Historic Lighting Design at Washington Union Station: D.H. Burnham & Company's Challenges and Creative Solutions
Kevin Wohlgemuth, Assoc Conservator, Building Conservation Associates, Inc.
Michele Boyd, Director of Preservation Services, Building Conservation Assoc

Track 7 - Management of Institutional Construction

Documenting Depression-Era Construction: The U of Virginia’s PWA Era Buildings
Benjamin Hays, Senior Engineer for the U of Virginia, AdjProf, Arch, Arch Hist UV

The Superintendent’s Annual Report: Chronicling the Construction of America’s Mental Asylums
Priya Jain, AIA, Assistant Professor, College of Architecture, Texas A&M Univ

Maintenance Regimes in Nineteenth-Century Richmond, Virginia
Elizabeth Cook, Lyon G. Tyler Department of History, College of William & Mary

Preservation and Adaptive Reuse of the Model School Houses in DC
Nathan Hicks, Silman

Track 8 - Vernacular Construction Techniques in the Americas

La Casa Maya: The Origins, Adaptation and Resilience through Time of a Vernacular Shelter of Yucatan
E. Logan Wagner PhD, AIA, Alanfe, pllc

Bousillage: (Re)constructing Something from Nothing
Hallie J. Borstel, MPS, Independent Scholar

Strategies of Containing: Fire Prevention, Construction Systems, and Labor across the Early 19th C British Atlantic
Jonah Rowen, Graduate School of Arch, Planning, and Preservation, Columbia U

Peculiar Construction of Galvanized Iron: Savannah Custom House Folded Plate Roof
Dennis J. De Witt, Past-President, Metropolitan Waterworks Museum, Boston

Track 9 - Prefabrication in Mid-Twentieth Century America

The Decorative Modernism of Aluminum Cladding
Tait Johnson, Doctoral Candidate in Architecture, History and Theory, U of I

Louis Kahn’s Integrated Residential Window Panel System
Clifton Fordham, Temple University

History of the Production & Use of Arch Precast Wall Panels in Mid 20th C
Grace Meloy, Engineer, Silman

War & Peace: Victor Lundy, Walter Bird, and Promise of Pneumatic Architecture
Whitney Moon, University of Wisconsin, Milwaukee

Track 10 - Houses and Housing in the United States

Prefab on Trial: Gunnison Homes and the Fight for Building Code Reform
Marisa Gomez Nordyke, PhD Candidate, Art History, Buildings-Landscapes-Cultures, University of Wisconsin-Madison

Demonstration Houses: Developments in Residential Construction Technologies 1930-1950
John A. Burns, National Park Service

The Stone Houses of Delaware’s Piedmont Region, 1750-1940
Catherine Morrissey, Assistant Dir, Center for Historic Architecture and Design
Rebecca J. Sheppard, Retired Assistant Professor, University of Delaware
TOURS (continued)

Historic Lighting Design at Washington Union Station

This tour will give attendees an inside look at D.H. Burnham & Co.’s creative and architecturally impressive solutions to the challenges of lighting the monumental spaces at Washington Union Station. The historic lighting design will be discussed within the context of the original design and construction of Union Station and attendees will be taken through the Main Hall (including at the mezzanine level behind the Legionnaires), the West Hall, the East Hall, the Presidential Suite, and the Retail Concourse.


Michele Boyd, Director of Preservation Services, Building Conservation Associates, Inc.

Sarah Mayersohn, Document/Archive Manager, Union Station Redevelopment Corporation (USRC)

ATTEND THE ABSTRACT PRESENTATION: Friday May 25th from 10:30a – 12:30p / ARC 1101
SESSION 6 / MATERIALS AND METHODS IN THE UNITED STATES: TWENTIETH CENTURY

CHSA MANAGEMENT COMMITTEE

Jeffrey Beard; Chair, Drexel University
Brian Bowen; Chair Emeritus, Georgia Tech
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