**6th Biennial Meeting on Construction History**

**May 24 – 26, 2018**

**University of Maryland**

**Department of Architecture, Planning and Preservation**

Approved and Registered for AIA CES LU / HSW as noted below:

<table>
<thead>
<tr>
<th>Track 1</th>
<th>Construction Education and Theory - (2 AIA CES LU/HSW)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Thursday, May 24th from 2:00 – 4:00 pm</td>
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<tr>
<td></td>
<td>ARC 1101</td>
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<td>SESSION CHAIR: Michael O’Brien</td>
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</tbody>
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**When Construction History is Construction Theory - Jean Baptiste Rondelet and the Origins of Architectural Science**

Dr. Franca Trubiano, Ordre des Architectes du Quebec
Associate Professor, Department of Architecture, University of Pennsylvania

**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, National Autonomous University of Mexico

**Tuskegee University’s Role in Construction Education History as the Oldest US Construction Baccalaureate**

Rogers Hunt III, MEng. Construction Science Department Head, Assistant Professor, Tuskegee University
Joel Wao, Tuskegee University
Kimberly Bivins, Tuskegee University

**A Preservationist Perspective on Construction Detailing**

Joseph Caputo, AIA, SPRAT Level 1

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Construction Education and Theory</th>
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<tbody>
<tr>
<td>Course Description</td>
<td>History of construction as taught in professional schools of architecture and engineering over the last 200 years</td>
</tr>
<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
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<tr>
<td>Four (4) Learning objectives (LO)</td>
<td>Understand the traditions of construction education in America and Europe.</td>
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</tbody>
</table>
• Recognize the evolution of construction as a research discipline in America
• Understand important case studies in historic materials and assemblies
• Recognize the legacy of construction publications in advancing knowledge in North America.

### Track 2
Fabrication and Use of Materials (2 AIA CES LU/HSW)
Thursday, May 24th from 2:00 – 4:00 pm
ARC 1103
SESSION CHAIR: Ben Hays

#### 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.

#### The Rise and Fall of Lake Superior Sandstone
Rachel Will; Wiss, Janney, Elstner, Associates, Inc.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Fabrication and Use of Materials</th>
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<tbody>
<tr>
<td>CHSA-UM0518-2</td>
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<table>
<thead>
<tr>
<th>Course Description</th>
<th>Examination of the role of materials and production in design and construction in the 19th and 20th century</th>
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<tbody>
<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Three paper presentations plus discussion</td>
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<tr>
<td>Four (4) Learning objectives (LO)</td>
<td>• Understand role of materials and production in design and construction of historic buildings and artifacts</td>
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<td>• Compare four historic materials and their applications</td>
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<td></td>
<td>• Identify preservation and conservation issues in common historic materials</td>
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<td></td>
<td>• Explain the importance of regional production to material availability and design in historic structures.</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Materials and Methods in the United States: Nineteenth Century</th>
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</thead>
<tbody>
<tr>
<td>Course Description</td>
<td>Case studies of construction processes and elements in historical American construction</td>
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<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
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<tr>
<td>Four (4) Learning objectives (LO)</td>
<td>Understand role of materials and construction labor in design and construction of historic American buildings</td>
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<tr>
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<td>Compare metal and masonry construction systems in historic American construction</td>
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<tr>
<td></td>
<td>Identify preservation and conservation issues in historic vernacular construction</td>
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<td></td>
<td>Comprehend the importance of foundation design to historic building performance and restoration</td>
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Track 4
Bridge and Vault Construction (1.5 AIA CES LU/HSW)
Friday, May 25th from 8:00 – 10:00 am
ARC 1103
SESSION CHAIR: Jeffrey Beard

Le Pont de Bercy: A Bridge in Three Acts
Andréa Livi Smith, PhD, Associate Professor & Chair, Department of Historic Preservation, University of Mary Washington

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, Assoc. AIA
Assistant Professor, South Dakota State University, Department of Architecture

Course Title | Bridge and Vault Construction
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Research on historic long-span structures, their conservation, and potential causes of failure</th>
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<tbody>
<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
</tr>
</tbody>
</table>
| Four (4) Learning objectives (LO) | • Understand relationship of compressive structural systems to historic long span design problems  
• Compare case studies of compressive masonry in four historic building cultures  
• Identify preservation and structural issues in masonry vaults  
• Comprehend the relationship of form to labor and fabrication in historic masonry structures. |

### Track 5

**Construction of American Landscape Environments and Infrastructure** (1 AIA CES LU/HSW)

Friday, May 25th from 8:00 – 10:00 am

ARC 1105

SESSION CHAIR: Zach Rice

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**From "A Giant and Intolerable Nuisance" to the Tidal Basin: The Reclamation of the Potomac Flats**

Justine Christianson, Historian, Heritage Documentation Programs, National Park Service

**Absolutely Unique in its Scope: The Metropolitan Boston Water Works Dry-plate Photographs**

Dennis J. De Witt, Past-President, Metropolitan Waterworks Museum, Boston

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Construction of American Landscape Environments and Infrastructure</th>
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<tr>
<td>Course Description</td>
<td>Case studies in historic landscape and infrastructure construction, including preservation and conservation issues.</td>
</tr>
<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
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</tbody>
</table>
| Four (4) Learning objectives (LO) | • Understand how large scale environmental design has occurred throughout American history  
• Compare case studies of preservation and conservation issues in landscape and infrastructure design  
• Identify strategies for conserving large scale historic landscapes  
• Comprehend the relationship of water-based infrastructure to contemporary design and preservation issues. |
Track 6
Materials and Methods in the United States: Twentieth Century (1.5 AIA CES LU/HSW)
Friday, May 25th from 10:30 am – 12:30 pm
ARC 1101
SESSION CHAIR: Brian Bowen

The Birmingham Alabama Builders Strike of 1970
Lauren Redden, MBC, McWhorter School of Building Science, Auburn University
Dr. Richard Burt, MRICS, McWhorter School of Building Science, Auburn University
Daniel O’Hara, MBC, McWhorter School of Building Science, Auburn University

Underpinning, Shoring, and Earth Retention Development during the late 19th and into the 21st Century
Marvin Levine, Levine Companies

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

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<tr>
<th>Course Title</th>
<th>Materials and Methods in the United States: Twentieth Century</th>
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<tbody>
<tr>
<td>Course Description</td>
<td>Case studies of construction processes and elements in historical American construction</td>
</tr>
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<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
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</tbody>
</table>
| Four (4) Learning objectives (LO) | • Understand role of materials and construction labor in design and construction of historic American buildings  
• Compare steel anchorage systems to other historic systems  
• Identify preservation and conservation issues in historic lighting installations  
• Comprehend the importance of foundation design to historic building performance and restoration |

Track 7
Management of Institutional Construction (2 AIA CES LU/HSW)
Friday, May 25th from 10:30 – 12:30 pm
ARC 1103
SESSION CHAIR: Clifton Fordham

Documenting Depression-Era Construction: The University of Virginia’s PWA Era Buildings
Benjamin Hays, Senior Engineer for the University of Virginia Building Official Group
Adjunct Professor, Departments of Architecture and Architectural History, University of Virginia

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

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

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

<table>
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<tr>
<th>Course Title</th>
<th>Management of Institutional Construction CHSA-UM0518-7</th>
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<tbody>
<tr>
<td>Course Description</td>
<td>Case studies in the unique construction and preservation issues facing large-scale institutional buildings and complexes</td>
</tr>
<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
</tr>
<tr>
<td>Four (4) Learning objectives (LO)</td>
<td>• Understand the unique issues in historic institutional construction and their contemporary preservation • Compare maintenance and commissioning procedures in historic large-scale building projects • Identify preservation and conservation issues in PWA-era construction • Comprehend the unique documentation issues involved in institutional construction</td>
</tr>
</tbody>
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Track 8
Vernacular Construction Techniques in America (2 AIA CES LU/HSW)
Friday, May 25th from 10:30 am – 12:30 pm
ARC 1105
SESSION CHAIR: Benjamin Ibarra Sevilla

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

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 Architecture, Planning, and Preservation, Columbia University

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

<table>
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<tr>
<th>Course Title</th>
<th>Vernacular Construction Techniques in America CHSA-UM0518-8</th>
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<tbody>
<tr>
<td>Course Description</td>
<td>Case studies in vernacular construction in three different cultures</td>
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<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations plus discussion</td>
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</tbody>
</table>
Four (4) Learning objectives (LO)

- Understand the relationships between climate, natural resources, and vernacular construction in the Americas historically
- Compare examples of vernacular construction across eras and cultures
- Identify preservation and conservation issues in vernacular construction
- Recognize the potential for vernacular building techniques to reveal important social and cultural knowledge.

Track 9
Prefabrication in Mid-Twentieth Century America (2 AIA CES LU/HSW)
Saturday, May 26th from 10:30 am – 12:30 pm
ARC 1101
SESSION CHAIR: Brian Bowen

The Decorative Modernism of Aluminum Cladding
Tait Johnson, Doctoral Candidate in Architecture, History and Theory, University of Illinois Urbana-Champaign

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

A History of the Production and Use of Architectural Precast Wall Panels in Mid-Twentieth Century Architecture
Grace Meloy, Engineer, Silman

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

Course Title
Prefabrication in Mid-Twentieth Century America

Course Description
Case studies in industrial production and its importance to design and construction in the postwar era

Credit Designation
HSW

Course Format
Four paper presentations plus discussion

Four (4) Learning objectives (LO)

- Understand the relationships between manufacture, construction, and design in 1950s and 1960s America
- Compare examples of prefabrication across building types and styles
- Identify preservation and conservation issues in prefabricated construction
- Recognize common materials and techniques used in the postwar era to achieve economical mass production and construction

Track 10
Houses and Housing in the United States (1.5 AIA CES LU/HSW)
Saturday, May 26th from 10:30 am – 12:30 pm
Prefabrication 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 Director, Center for Historic Architecture and Design
Rebecca J. Sheppard, Retired Assistant Professor; University of Delaware

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<tr>
<th>Course Title</th>
<th>Houses and Housing in the United States CHSA-UM0518-10</th>
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<tbody>
<tr>
<td>Course Description</td>
<td>Case studies in residential construction through history and its conservation.</td>
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<tr>
<td>Credit Designation</td>
<td>HSW</td>
</tr>
<tr>
<td>Course Format</td>
<td>Four paper presentations and discussion</td>
</tr>
</tbody>
</table>
| Four (4) Learning objectives (LO) | • Understand the social and material forces that have influenced residential construction historically  
• Compare examples of residential construction in America through three different eras  
• Identify preservation and conservation issues in historic residential construction  
• Recognize the roles of local materials, climate, and energy efficiency in shaping housing types and design. |