



NEWSLETTER

The bulk of this newsletter is taken up with a report on our second biennial meeting at the University of Pennsylvania in May, hosted by the Graduate Program in Historic Preservation of the School of Design. All agreed that the event was a great success with splendid presentations and keynotes and an opportunity to interact with old friends and meet new acquaintances. The wide variety of the subjects covered was noted which helps us recognize that construction history is defining itself as a broadly based field of study and exploration.

I am particularly pleased to record that about one-third of our members were present. For those of you who were not able to attend please read the report and note that a CD of the paper abstracts is available if you are interested.

I would like to welcome our new members who joined as a result of the Philadelphia meeting. I hope we can live up to your expectations and can look forward to your contributions.

The next Biennial has been set for the Fall of 2012 and will be hosted by MIT in Boston. In the meantime we will try to hold a lower key event next year – stayed tuned. We are also encouraging local CH interest groups to form where feasible. As an example New York held a well-attended event in June which will be reported in the next newsletter.

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THANKS TO OUR INSTITUTIONAL AND CORPORATE MEMBERS

- * Associated General Contractors of America
- * Auburn University
- * Canadian Centre for Architecture
- * ConstellationCenter
- * Construction Management Association of America
- * Georgia Institute of Technology
- * Levine Construction Company
- * Minnesota State University, Mankato
- * Old Structures Engineering
- * Paces Construction Co.
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- * Texas A&M University
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- * Turner Construction Company
- * The Whiting Turner Contracting Company
- * Vertical Access LLC

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The Thomas Viaduct - A Bridge Over Time

THE THOMAS VIADUCT

The Thomas Viaduct celebrated its 175th anniversary this year as the oldest major railroad viaduct in North America and the first built on a curved alignment. Still in use, the viaduct is the major monument of the B&O Railroad (now CSX Transportation), at least in terms of bridges. Author Carl Condit called it a “masterpiece of the mason’s art. . . a superb work of architecture as well as of engineering.” The stone viaduct is a National Historic Landmark, a proposed World Heritage Railway Site, and has been nominated as a National Historic Civil Engineering Landmark.

But the bridge, over the Patapsco River between Relay and Elkridge, MD, is not in good shape. It is overgrown with vegetation, its original 1835 cast-iron railing is in tatters, and the surroundings are less than welcoming to visitors. The Friends of Patapsco Valley and Heritage Greenway, an environmental group, has plans to restore the bridge and improve its environment. To accomplish this, they announced a \$2.8 million fundraising effort at the Thomas Viaduct 175th anniversary celebration held July 5, 2010 in the Patapsco Valley State Park.

The Thomas Viaduct, named for Philip E. Thomas, the first president of the Baltimore and Ohio Railroad, was designed by Benjamin H. Latrobe, Jr., a 27-year-old railroad surveyor who had never designed a bridge before or taken a formal course in civil engineering. But his father was the famous architect (of the U. S. Capitol and the Baltimore Cathedral) and his brother, John H. B. Latrobe, was the B&O’s lawyer, so he came well recommended. And he was a quick study.

Latrobe’s viaduct is a sophisticated design of seven piers faced with engaged columns and capitals and eight elliptical arches topped with a Neo-classical cast-

iron railing, also of his design. It is built on a 4.5-degree curve that marks the start of the Washington Branch as it leaves the B&O’s Old Main Line. The materials were local, mainly 63,000 tons of Ellicott City granite, laid up in quarry faced ashlar, a style that suits the pastoral surroundings, now the Patapsco Valley State Park. The viaduct looks like it belongs there, in contrast to the Interstate highway bridges that now surround the area. John McCartney, the contractor, was so proud of his work on the viaduct that he paid for an obelisk listing the names of the principals and dates of construction: July 1833-July 1835. It is North America’s oldest railroad monument.



Lithograph by Thomas Campbell based on a sketch by John H. B. Latrobe, 1835

Artists have been attracted to the Thomas Viaduct since it opened. It has also provided a strategic backdrop for some of the great events in the nation’s history, including the initiation of the telegraph and the protection of railroad access to the nation’s capital during the Civil War. The 175th anniversary celebration, with major support from CSX Transportation, which owns the

bridge, included costumed telegraphers, Civil War reenactors with cannon, and model trains running over a model viaduct. The celebration program also includes a viaduct artworks exhibit at the B&O Railroad Museum and a 3d animation video showing how the bridge was built.

The \$1.7 million viaduct restoration program involves pressure washing and re-pointing the masonry, replicating the cast-iron railing in steel, and re-using the remaining original railing sections as a fence around the monument to protect it from vandals. The proposed park improvements will provide new viewscapes, interpretive signage, and an overlook park at an estimated cost of \$1.1 million.

James D. Dilts, co-chairman,
Thomas Viaduct 175th
Anniversary Celebration
committee
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UPCOMING MEETINGS OF INTEREST 2010

HISTORICAL CONSTRUCTION EQUIPMENT ASSOCIATION, INTERNATIONAL CONVENTION & OLD EQUIPMENT EXPOSITION, RICHMOND, RI, SEPTEMBER 10-12, 2010
(WWW.HCEA.NET)

ASCE HISTORY AND HERITAGE COMMITTEE, ASCE ANNUAL CONFERENCE, OCTOBER 20-22, 2010, LAS VEGAS, NV
(CREESE@ASCE.ORG)

ASSOCIATION FOR PRESERVATION TECHNOLOGY INTERNATIONAL, DENVER, CO ANNUAL CONFERENCE, OCTOBER 6-9, 2010
(WWW.APTI.ORG)

OTHER CHSA NEWS

WE ARE NOW ACCEPTED AS AN AFFILIATED SOCIETY OF THE AMERICAN HISTORY ASSOCIATION
WWW.HISTORIANS.ORG
MORE NEWS TO FOLLOW.

WE ARE EXPLORING THE FEASIBILITY OF HELPING TO ESTABLISH A CENTRAL AND SOUTH AMERICAN BRANCH.
ANYONE INTERESTED CAN CONTACT MARCO.PENIDO.REZENDE@HOTMAIL.COM.

OUR 2ND BIENNIAL MEETING – A “RESOUNDING SUCCESS”

This took place on May 20 – 22 at the School of Design, University of Pennsylvania, Philadelphia, hosted by the Graduate Program in Historic Preservation. The event was sponsored by Vertical Access, John Milner Associates Inc. and LimeWorks.US, to whom we extend our thanks.

55 were in attendance of whom about 40% were academics, 50% practitioners and 10% students. In all 37 of our members were present or about one-third of the current roster, an excellent turn-out for a young small society like ours. We were also fortunate to sign up several new members as a result of the event.

OPENING RECEPTION

One of the biggest benefits of these gatherings is the opportunity to meet old friends and colleagues and to make new acquaintances. This began at the opening reception which took place in the Architectural Archives of the University which was kindly hosted by the Graduate Program in Historic Preservation. The Archives are one of the finest in the country and Bill Whitaker, the curator and collection manager, took several members on a whirlwind tour.

OPENING SESSION

Dean Taylor of the School of Design and Professor Lindsay Falck on behalf of the Historic Preservation program welcomed the delegates. Brian Bowen, Chair of CHSA added his welcome. He spoke briefly on why CHSA had been formed and suggested that a new field of research and study was in formation. To support this contention he quoted comments made by Werner Lorenz of Brandendenburg Technical University at the 3rd International Construction History Congress held in 2009:

“Construction History is far more than we think. Since

the end of the 20th century we can observe a noticeable shift to a distinctly professional attitude of our movement. One cannot resist the impression that a new discipline is in the process of establishing itself, transcending traditional academic demarcations. It is the history of architecture, the history of technology, the history of science, it is archaeology, and not to forget the restoration of historical structures – yet it does not fit any of these categories. More and more construction history is developing its own methodology, characterized by integration of new methods from different origins.

It is a highly interconnected process between creativity and routine, between craft and science, innovation and tradition. . . the role of construction history is no less than to provide an explanation of the act of producing this hinge between nature and culture. Understood this way construction history is an open-ended adventure.”

TECHNICAL PROGRAM

The opening keynote address was given by **Professor David Billington**, recently retired from the Department of Civil & Environmental Engineering at Princeton University, on the subject: *Design Innovation in Concrete Structures – a Historical Perspective*. This proved to be a brilliant overview of the evolution of structural concrete design from the first experiments with reinforcing, through prestressing to shell concrete. His main theme was that innovation in the development of structural concrete was initiated by engineer-builders in the field and not by academics.

Over the next day and a half eight paper sessions were presented in groups of two or three, or 23 papers in total. The titles of these and their presenters are listed on page 7. A CD of the paper abstracts (and in two or three cases, full papers) is available, but there is a small charge of \$15.00 to defray postage and materials. It can be ordered at the Society website

In reviewing the papers, all were struck by the sheer diversity of the construction history topics covered, reinforcing the view cited above that CH is “an open-ended adventure”. The subjects ranged over:

- Buildings and infrastructure
- Materials and components
- Labor and equipment
- Planning and Design
- Codes and controls

And . . . even stretching to others parts of the Americas.

It was noted however that no papers touched on subjects in which we hope to encourage interest, such as: economics, legal, contracting, delivery and the like.

Two other keynotes were interspersed between the sessions:

Dr. Donna Rilling, SUNY, Stony Brook, spoke to the subject: *Everyman a Speculator: House Builders in Jacksonian Philadelphia*. Her talk was based on the research she undertook for her book (*Making Houses - Crafting Capitalism: Builders in Philadelphia 1790 – 1850*). She covered an extraordinary period of growth (and the inevitable recessions) in the period noted, where the unique land-holding conventions in the city, based on London practice, encouraged house building speculation which was taken up initially largely by the master carpenters. She followed the stories of three of these carpenters – their successes and failures (mostly the latter!)

Dr. Grace Palladino, co-director of the Samuel Gompers Papers, University of Maryland, spoke to the subject: “*Labor History – a Forgotten Corner of Construction History*”. Her talk was also based on her recent book (*Skilled Hands, Strong Spirits – A Century of Building Trades History*). She talked of the construction unions achievements and their pact with the contractors in the early part of the last century, their pride in contributing to the WW II effort and to the disillusionments which followed through the 1960s and 70s. She concluded (to applause) with a reminder that it was construction labor

that built our buildings and infrastructure, not the architects or engineers.

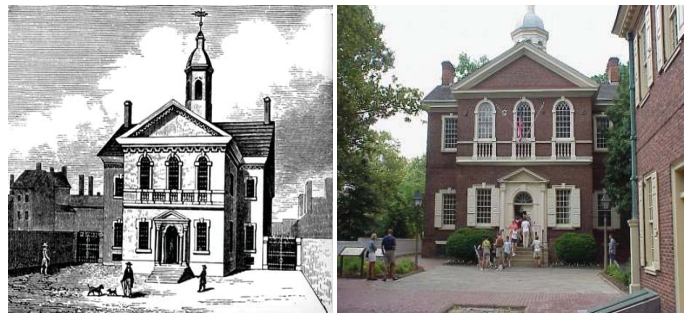
GENERAL SESSIONS

During the course of the proceedings there were opportunities for a members meeting and general discussions which will be reported on separately.

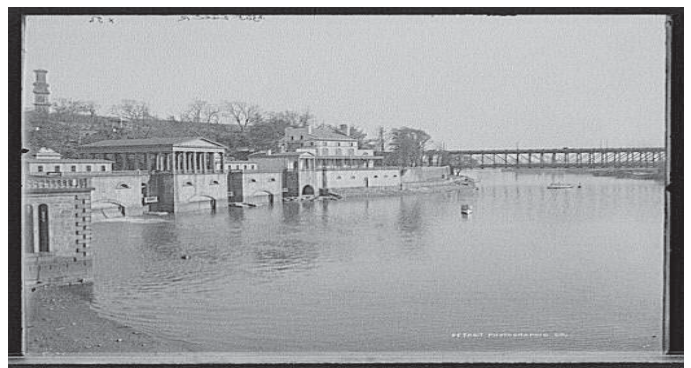
TOURS

The tours were scheduled for Saturday afternoon and inevitably they were not well attended, despite the attractive venues that had been scheduled. These were:

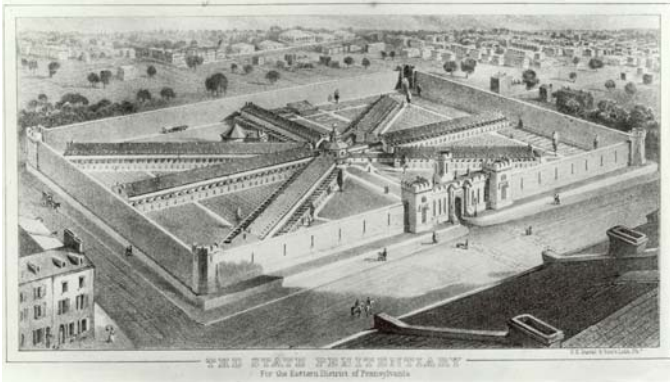
Carpenters Hall – built in 1724 and in continuous use since then. Charlie Cook was the guide and took us to the second floor (Franklin’s original library) and the rarely-seen attic.



Fairmount Water Works – opened in 1822 and the first municipal facility of its kind. It now has an excellent interpretive center and the guide was Adam Levine who was also one of our speakers.



Eastern State Penitentiary – opened in 1829 to a design by John Haviland who produced a radical plan to fit a new approach to incarceration. David Cornelius was the guide and also a speaker at the meeting.



EXPANDING THE REACH OF CONSTRUCTION HISTORY IN AEC CURRICULA

Last year during our one-day event at the National Building Museum in December, there was a spirited discussion on the need to encourage the introduction of Construction History into the curricula of American Universities with architecture, civil engineering and construction schools and colleges. If this initiative were to be successful it would expand the demand for academic positions in the field, encourage research and publication and generally assist in legitimizing the subject.

In Philadelphia a small group attended an informal lunch-time round-table to discuss ways and means and it was agreed to keep the group together to follow-up on several initiatives proposed. More news will follow in future newsletters.

If you would like to contribute to this effort, please contact us at chs@coa.gatech.edu

FUTURE CHSA MEETINGS

At an informal members meeting in Philadelphia, the scheduling and location of future meetings was debated. One of the issues was the timing of the next (3rd) Biennial which in theory should be in May of 2012. However this clashes with the 4th International Construction History Congress which is scheduled for June of that year. It was recommended that the date of the Biennial be pushed back to the Fall of 2012. This was accepted by the Management Committee at their June meeting. Here then are the tentative timings and locations of all meetings leading up to the 5th International in Chicago in 2015.

2011 Fall: One day event in New York

2012 June: 4th International Construction History Congress, Paris

2012 Fall: 3rd US Biennial Meeting, MIT, Boston

2013 : Warm-up event in Chicago

2014 : 4th US Biennial Meeting, Minneapolis

2015: 5th International Construction History Congress, Chicago

ANNOUNCEMENT

Built Like Bridges: Iron, Steel, and Rivets in the Nineteenth Century Skyscraper

This article by CHSA member, Tom Leslie (Iowa State University), appeared in the June 2010 (Volume 69 Number 2) of the Journal of the Society of Architectural Historians.

CHANGE OVER TIME

This is a new, semi-annual international journal dealing with contemporary conservation issues. The editor is Frank Matero (University of Pennsylvania), also a CHSA member. The first issue will be published in spring 2011. Further information concerning subscriptions and submissions for publication can be obtained at cot@design.upenn.edu

2ND BIENNIAL MEETING - LIST OF PAPERS PRESENTED

Carlos Martin, Abt Associates, MD - Building Codes & the Construction of US Cities

David G. Bueche, Hoover Treated Wood Products, GA - Fire-Retardant Treated Wood: An American Innovation

Donald Friedman, Old Structures Engineering, NY - Fire and Reaction: American Urban Building Control 1870-1900

Patrick Harshbarger, TranSystems Corp., PA - Evaluating the Bridge-Building Legacy of the 1950s & 1960s

Leslie N. Sharp, Georgia Institute of Technology, GA - Constructing the Dixie Highway in Middle Tennessee

James D. Dilts, Baltimore, MD - Building the Thomas Viaduct, B&O Railroad 1835

Tod L. Benedict, John Milner Associates, PA - The Construction & Maintenance of Masonry Shafts in 18th & 19th Century Philadelphia

Jill Verosek & Lisa Howe, Goody Clancy, MA and Kelly Streeter, Vertical Access, CT - Using Technology to Reveal a Building's Construction History at the U.S. Bankruptcy Courthouse, Brooklyn, NY

Edmund P. Meade, Robert Silman Associates, NY - Iglesia San José: Identifying the Architectural & Construction History of a Gothic Church in the New World

Adam E. Levine, Philadelphia Water Department, PA - The Grid .v. Nature: The History & Legacy of Topographical Change in Philadelphia

Robert Russell, College of Charleston, SC - Building out Back of Beyond: Big City Construction on the Southern Frontier in the 1830s

Marco Antonio Penido de Rezende, Federal University of Minas Gerais, Brazil - History of Construction in Brazil: A New Approach

Ronda Bernstein, Association for Preservation Technology – DC - Concrete Design at Meridian Hill Park, Washington, DC

Meghan Elliott, Meyer, Borgman & Johnson, MN - Square Buildings & Round Bars: Reinforced Concrete Innovation in the Minneapolis Warehouse District

Richard C. Ryan, Texas A&M, TX - The Relationship of Construction History to Heavy Equipment Development in the 19th & 20th Centuries

David Gregory Cornelius, Drexel University, PA - Philadelphia, Perth, Pentonville: John Haviland & the Invention of the Artificial Environment

Lee E. Gray, UNC Charlotte, NC - (Virtual) History and the Early Passenger Elevator in America

Jenna Cellini, Robert Sillman Associates, NY - The Development of Precast Exposed Aggregate Concrete Cladding: The Legacy of John J. Earley

Amy Swift, Perkins & Will, NY - The Vulnerability of Curtain Wall Assemblies of Mid-Century Modern Skyscrapers

Terry A. Necciai, John Milner Associates, PA -From Parting Bead to Grand Parade: Integrating Systemic Information on Historic Construction Detailing into a Holistic Approach to Storefront Architecture and Townscape

Richard K. Dozier, Tuskegee Institute, AL - Bricks without Straw: Tuskegee Institute's Construction Program 1881-1915

Richard I. Ortega & Jim Dossett, RMJM, PA - Masonry Cladding of Steel Framed Buildings, 1880 to 1940; An Evolving Relationship

Sara E. Wermiel, MIT & Boston Architectural College, MA - An Experiment in Skeleton-frame Construction in the 1850s: The US Marine Hospital in New Orleans

WHO WE ARE

The Society is dedicated to the study of the history and evolution of all aspects of the built environment—its creation, maintenance and management. It is a forum for scholars and professionals in the field to share, meet and exchange ideas and research.

Membership is open to a wide range of construction related disciplines involved in the planning, development, design and construction of buildings and engineering infrastructure, in addition to those concerned with their operation and preservation.

Members share a passion for examining how our existing structures were planned, designed and built, with the purpose of using this knowledge to better preserve what we have and to guide us in determining future directions.

The US branch of the Construction History Society is a distinct entity catering to the historical studies and interests of its members here in America. Membership in the US branch includes full benefits in CHS at large, including receipt of the Society's Journal and newsletter and links to scholars in the field worldwide.

MANAGEMENT COMMITTEE

Brian Bowen (Chairman), GA Tech, Atlanta, GA

Anat Geva (Vice Chairman), Texas A&M University, College Station, TX

Tom Leslie (Secretary), Iowa State University, Ames, IA

Mohammad Gharipour, University of North Carolina, Charlotte, NC

Lee Gray, University of North Carolina, Charlotte, NC

Jeff Beard, ACEC, Washington, DC

Don Friedman, Old Structures Engineering, New York, NY

Frank Matero, University of Pennsylvania, Philadelphia, PA

John Ochsendorf, MIT, Cambridge, MA

Michael Ramage, Cambridge University, Cambridge, UK

Linda Ruth, Auburn University, Auburn, AL

CORRESPONDING SOCIETIES

Public Works Historical Society, www.pwhs.net

Historical Construction Equipment Association,
www.hcea.net

THIS IS YOUR NEWSLETTER AND THE ONLY VEHICLE WE HAVE TO KEEP IN TOUCH WITH ONE ANOTHER.

SO PLEASE USE THIS TO LET US KNOW:

- * your interests in construction history, your current research, précis of recent lectures, etc.
- * books, texts & articles that your fellow readers should know about
- * names and e-addresses of colleagues and friends that we can include on our mailing list
- * if you are willing to write a brief article for us.

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