CHSA NEWSLETTER

We extend our best wishes to you for a successful 2012. There is an exciting year ahead for CHSA with our own Third Biennial meeting scheduled for November at MIT, Boston - see some preliminary details inside. Also the Fourth International Congress on Construction History will be held in July in Paris. There are about 25 papers by American authors that have been accepted, so we should have a good contingent there.

This is the time of year when we solicit your membership renewals on which we depend for our survival. For those who have renewed, our thanks. If you have not, please go now to the website www.constructionhistorysociety.org and sign up for 2012. There has been no change in the 2012 dues.

One of the benefits of membership is access to the British Society's publications, including the prestigious Construction History Journal. The 2011 issue is only just going to the printers, so it will be next month before we receive it, but the November CHS Magazine has been circulated to you. Also note that we intend to produce a second issue during 2012 with emphasis on American construction history.

Last month we had news that the Society of Architectural Historians has agreed to a formal affiliation with CHSA which will bring us access to an important historical constituency. Details of joint efforts are being worked out.

Finally, we have three new members on the Management Committee and extend a welcome to Jenn Cappeto, Peter Hilger and Marvin Levine - further details are inside.

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Ecole des Beaux Arts, Paris

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
- Hoover Treated Wood Products, Inc.
- Kaese & Lynch
- Levine Construction Company

- Minnesota State University, Mankato
- National Center for Preservation Technology and Training
- Paces Construction Co.
- Texas A&M University
- The Pepper Companies
- The Whiting Turner Contracting Company
- University of Pennsylvania
- Vertical Access LLC

BUILDING CODES AND THE CHARLESTON EARTHQUAKE OF 1886

Just over 125 years ago a devastating unexpected earthquake struck the Charleston area. No tools were available at the time to measure its intensity but experts surmise it was probably around a 7.3 on the Richter scale compared to 6.6 for the recent Fukushima quake.

The damage was significant with 90% of all buildings being affected and between 60 and 150 lives lost plus many more injured. Almost as bad was the loss of telegraph communication with the outside, leading to wild speculations including one that the stated that the entire coastal area had been swept away and that the Florida peninsula had snapped off the continent!



Twenty-five years previous to this event more than a third of the city had been destroyed in one of Charleston's recurring fires of the period. As all construction historians know, building codes only tend to change after serious events and not before. In this case the changes centered on moving away from timber as the primary construction material and requiring the expanded use of masonry. Little did the authorities know that this logical move would compound the problems experienced during the 1886 earthquake.

Due to the extent of reconstruction required and the lack of significant masonry skills in the city, itinerant

masons were encouraged to move to Charleston from the North. They brought with them new materials and techniques that were developing at the time to reduce costs and speed up construction concerning bricks, mortar and bonds.

The colonial era bricks used in the locality were Carolina Grays, a hand-made rough and heavy brick. These were to be replaced with something like the modern red brick, machine pressed, lighter, with a smoother surface and of course, cheaper and easier to lay. The colonial brickwork was laid with lime mortar and this too was falling out of use in favor of natural and Portland cement mortar. This was stiffer with higher compressive strength, resistance to shrinkage and a shorter set time. Finally the Northern masons brought with them new brick bonding styles. The bonds used prior to the 1840's in Charleston were English bond (alternating courses of headers and stretchers) and the more decorative Flemish bond (stretchers and headers alternating in the same course). These were time consuming and wasteful, so the masons had developed an alternative that came to be known as American bond which involved using a header row every 5th to 7th course resulting in faster construction and less waste.

It will come as no surprise to the reader to understand that a combination of codes increasing the use of masonry structurally in Charleston buildings, the new masonry materials and techniques and the intensity of rebuilding and repairs undertaken after the 1861 fire and the civil war, combined to result in far more damage from the earthquake than might have been possible. Indeed several buildings that had not been effected by the fire or damaged during the war, received little disturbance, e.g. St Michael's Episcopal Church and the Miles Brewton House.

Ironically one of the features of post-quake Charleston buildings are the earthquake bolts installed to secure the exterior masonry to the interior wood framing.

This article draws on two term research papers by John Bennett and Tim Carter (both Civil Engineering Students) written in 2011 for a History of the Construction Industry course at Georgia Tech, College of Architecture.

3RD BIENNIAL MEETING OF CHSA 2012

Following meetings in Atlanta (2008) and Philadelphia (2010) our third will be held in Boston at the Massachusetts Institute of Technology on November 2nd & 3rd. John Ochsendorf who chairs the local organizing committee is planning an exciting event. The general plan (subject to change) will be:

Nov 1st : Evening reception

• Nov 2nd : Refereed papers (American Construction 1850-1950)

Nov 3rd : Guastavino construction – past, present & future

• Nov 4th : Optional morning tours

As many of you know John has recently published a book on Guastavino (Guastavino Vaulting –The Art of Structural Tile) and there will be an exhibit opening at the Boston Public Library on September 28th. The November 3rd session will include speakers by Guastavino scholars from the US and overseas.

More information will be forthcoming as the planning proceeds. In the meantime we are including in this news-letter a Call for Papers for the November 2nd session, which we will also be sending separately, just in case you will not be opening this newsletter!



MIT, Boston

CALL FOR PAPERS **BOSTON 2012** NOVEMBER 2-3

NOVEMBER 2: CONSTRUCTION HISTORY IN THE AMERICAS, 1850-1950

NOVEMBER 3: GUASTAVINO CONSTRUCTION: LEARNING FROM THE PAST

The Construction Society of America announces its third meeting to be held on November 2-3, 2012 at the Massachusetts Institute of Technology in Cambridge. The meeting will occur over two days, with the first day devoted to Construction History in the Americas, 1850-1950, and the second day devoted to Guastavino Construction, to coincide with a major public exhibition at the Boston Public Library on the work of the Guastavino Construction Company. A wide range of papers on construction history in the Americas will be considered.

CHSA was formed in 2007 in response to a growing level of interest among academics and practitioners in the subject. The association operates as a branch of the Construction History Society of the UK and maintains links with other international societies.

Call for Papers and Sessions

Papers: Authors interested in presenting a paper at the meeting are invited to submit an abstract (250 - 400 words) by June 1, 2012. The submittal must include full contact details (name, degree, affiliation, address, telephone and e-mail). It should be sent by e-mail as a PDF to chs@coa.gatech.edu

Abstracts will be reviewed by the Program Committee and authors will be notified by June 30, 2012. Presentation materials will be required by October 1, 2012.

Sessions: Those wishing to organize a session around a selected theme are invited to submit an outline of the subject and to list no more than three proposed speakers, their topics and full contact details including those of the session chair. This submittal shall be sent by email as a PDF to chs@coa.gatech.edu by May 1, 2012. Further information may be requested by the Program Committee and final advice will be given concerning acceptance or otherwise by June 30, 2012. Presentation materials will be required by October 1, 2012.

Topic Guidance

The Program Committee wishes to encourage a broad range of papers dealing with any aspect of construction history. However preference will be given to abstracts focused on the urban development of nineteenth and early twentieth century American cities. This includes not only the physical results (infrastructure and building) but also the processes used in their development. Subjects dealing with Canadian, Mexican and at other Latin American locations will be welcomed.

The Committee recognizes that many of our members have interests in construction history that extend beyond the Americas. Papers or sessions on such subjects will be considered, but priority will be given to those devoted to American subjects.

Presenters will be expected to register for the conference at a reduced rate and no assistance can be extended for travel and other expenses.

Student Stipends

CHSA intends to raise sponsorship for students to assist with travel, registration and other expenses and students are therefore encouraged to submit abstracts.

Issued by: Construction History Society of America PO Box 93461 Atlanta, GA 303077 chs@coa.gatech.edu

GOLDEN GATE BRIDGE CELEBRATES 75TH ANNIVERSARY OF ITS OPENING IN 1937

On 27th May 1937 the Golden Gate Bridge spanning Golden Gate Straits was opened with a pedestrian's day - over 200,000 people are reported to have participated. Construction had begun in January 1933 after about ten years of promotion, planning and wrangling and the story is very well covered at http://goldengatebridge.org/research/construction.php

4TH INTERNATIONAL CONGRESS ON CONSTRUCTION HISTORY, PARIS

Preparations for this event move right along. It will be held at three different locations in Paris from July 3rd to 7th , 2012. Well over 200 papers will be presented covering a very wide range of construction history subjects which will all be published in the Congress proceedings. Further details at www.icch-paris2012.fr Registration is now open at the website and the early-bird rate is available up to February 10th. Also listed are hotels at a variety of rates.

Given the recent discounting of the Euro, this will make the trip more reasonable if you decide to go.



Main Cable Spinning



Ecole des Beaux Arts, Paris

Affiliation with Society of Architectural Historians



Late last year we concluded a partnership agreement with SAH which will gain us a link on their website, opportunities to present a session and promote CHSA at their annual meeting and access to their mailing list. We have yet to convene a conference call to talk about the details and explore other joint activities.

MANAGEMENT COMMITTEE CHANGES

There were four openings on the ten member committee following the expiration of terms for Lee Gray and Mohammad Gharipour and the resignation of Linda Ruth and Anat Geva. Linda has transferred to Italy to look after Auburn University's programs there. Anat has taken over as President of SESAH for 2012. Mohammad decided not to re-run for election. All still remain members.

After an election, the following were appointed:

Lee Gray: Associate Professor of Architectural History in the School of Architecture and Associate Dean in the College of Arts & Architecture at the University of North Carolina, Charlotte, NC.

Jenn Cappeto: Associate, Higgins Quasebarth & Partners, New York, NY

Peter Hilger: Faculty, Internship and Curriculum Adviser, Facility Management Program Coordinator, Construction Management Program, University of Minnesota, Minneapolis, MN

Marvin Levine: President, Levine Companies, General Contractors, Deerfield, IL

Fluor Corporation celebrates 100th Anniversary in 2012

Fluor is ranked as the second largest US contractor with revenues over \$17 bn in 2010 by Engineering News Record. The company today operates as an engineering, procurement, contracting and management firm focusing especially on industrial, petrochemical and other heavy construction sectors. It was founded in Santa Ana, CA in 1912 by John Simon Fluor Sr., a Swiss immigrant master builder. Almost from the start the company specialized in the new oil and gas facilities and made a name for itself by inventing the Buddha water- cooling tower in 1920. Go to www.fluor.com where you will find a interesting history time-line.

Celebrating 100 years

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.

Corresponding Societies

Public Works Historical Society, www.pwhs.net

Historical Construction Equipment Association, www.hcea.net

Society of Architectural Historians, www.sah.org

Management Committee

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

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

Jeff Beard, ACEC, Washington, DC

Jenn Cappeto: Higgins Quasebarth & Partners, New York, NY

Meghan Elliott, Meyer Borgman Johnson, Minneapolis, MN

Lee Gray, University of North Carolina, Charlotte, NC

Peter Hilger: University of Minnesota, Minneapolis, MN

Donald Friedman, Old Structures Engineering, New York, NY

Marvin Levine: Levine Companies, Deerfield, IL

Sara Wermiel, Independent Scholar/Historic Preservation Consultant, Boston, MA

Construction History Society Representative James Campbell, Cambridge, UK

COMMITTEE ADVISORS

Frank Matero, University of Pennsylvania, Philadelphia, PA John Ochsendorf, MIT, Cambridge, MA

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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www.constructionhistorysociety.org