With summer here Society activities inevitably quiet down. We are however in the process of printing a new CHSA brochure to replace the original one produced in 2008. With our challenging finances we rely on electronic communication to avoid printing and postage costs. However we find the brochure to be a useful marketing tool, especially for display at meetings to let people know we exist. We will send you a couple by mail although it probably will not be until August.

You should have received your copy of the British CHS’s new Magazine which is effectively their old newsletter smartly redesigned. They are anxious to receive articles from our members here and these should be sent to claudia.marx@cantab.net The next issue is due out in October, so we imagine she will need a pdf. by early September.

We hear from Paris, the location of the next 4th International Construction History Congress in 2012, that they were overwhelmed by the number of abstracts they received – 680. If you submitted an abstract you should have heard by now if it has been accepted or not. The fact that there were so many submittals is good news as it demonstrates a strong level of interest in construction history.

Finally I hope that those of you who live in close vicinity to New York will take note of the CHSA event being planned for October 29th which is fully described on page 6.

Brian Bowen, Chairman
College of Architecture, Georgia Tech,
Atlanta GA 404-378-3779

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
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* Minnesota State University, Mankato
* Paces Construction Co.
* Texas A&M University
* The Sullivan Company
* The Pepper Companies
* The Whiting Turner Contracting Company
* University of Pennsylvania
* Vertical Access LLC

First MIT Building, Back Bay, Boston 1865
NEW YORK’S UNSEEN OBSERVATORY

More than forty years have gone by since Nathan Silver published *Lost New York*, his well-known study of structures removed, burnt, or otherwise lost throughout the city’s history. Yet some “Lost New York” has stayed lost longer than others. One example is the Latting Observatory, contemporary with and adjacent to the Crystal Palace, located between 5th and 6th Avenues at 42nd Street. Built in 1853 of iron and wood, the Observatory was about 350 feet high and provided for the first time a birds-eye panorama over the burgeoning city. But although historians of architecture and construction are still very much aware of the Crystal Palace, most of them have never heard about the Latting Observatory.

Extant images of the Observatory are hard to find. Rem Koolhaas included it in *Delirious New York*, but its place in that book was exceedingly generic: a placeholder for a Tarot-like archetype, The Tower. A wood-engraving [Figure 01] in the *New-York Illustrated News* shows a remarkable spire of vertical trusses, X-bracing, and open stairs. Other accounts describe an unprecedented “steam-car” rise to 200 feet, two thirds of the tower’s height; as Lee Gray has written, the reference perhaps suggests “a connection between the development of the railroad and movement along the horizon... and the desire to transport people upward.” To our eyes, the Observatory’s structure appears engagingly modern, even in comparison with Eiffel’s much taller – and much later – tower for Paris. Viewed side-by-side with iron structures by Bogardus, for instance, Latting’s Observatory is exhilaratingly expressive.

Attributed to the architect William Naugle, the Observatory was conceived as a speculative venture by Warren Latting, who paid $100,000 for the construction of the tower. Unfortunately for Latting, the crowds for both Fair and Observatory were insufficient for his project’s financial success. The Latting Observatory soon became an ongoing financial failure; but a fire which occurred in September, 1856, soon made the failure permanent [Figure 02]. And visitors who did write about the Latting Observatory found the view far more intriguing than the tower itself. Mark Twain (then still “Samuel Clemens,” age 17) ascended the Observatory and wrote to his sister of a “grand view of the city and the country round,” and went on to describe New York’s substantial infrastructure, the scope of which was visible from the Observatory’s summit: “The Croton Aqueduct, to supply the city with water, is the greatest wonder yet. Immense sewers are laid across the bed of the Hudson River, and pass through the country to Westchester County, where a whole river is turned from its course, and brought to New York.” Of the tower upon which he stood, he wrote nothing.

So why was the Latting Observatory seemingly invisible, even to those who climbed to its top? For contemporaries of the structure as well as for more recent writers, there appeared to have been a taxonomic confusion. The Observatory’s unornamented, purpose-built structure was hardly “architecture” and so failed to
conform to expected cultural categories. Nor was the Observatory’s social utility comparable with the municipal structures which so impressed Clemens from afar. Like the telephone poles which line our streets even today, the Observatory may have been considered an effectively invisible servant for New Yorkers’ use and recreation. One might have expected greater attention in the years since. But histories written since the rise of Modern Architecture have tended to focus on constructional trends which anticipated that movement: the use of glass and steel, or the development of large-scale industrial structures. Other histories describe socially-determined changes in architectural form. Perhaps the Latting Observatory appeared, in retrospect, neither technologically influential nor socially relevant.

Today, the battered, lattice-like structure, multi-floor staging, visible vertical circulation, and a pragmatic mix of “hybrid” materials may be more relevant than ever before. Eiffel’s Tower might have been the harbinger of the “Age of Steel” – despite its having been made of cast iron! – but Latting’s Observatory may be usefully claimed by our own “Age of Composite & Renewable Materials.” And for what better purpose is history’s example sought than as a guide towards our own future’s path?

End Notes:

4 Carol and Margot Gayle, Cast-Iron Architecture in America (New York: W. W. Norton & Company, 1998), 120-123.

by:
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2011 marks the 150th anniversary of MIT. This was not the first engineering college in America, but it was the first to offer a 4-year bachelor’s degree in architecture. Architects at this time were trained in offices of established practitioners and on the job. Some studied engineering in the few engineering colleges in the U.S., and a few studied in France, mainly at the Ecole des Beaux-Arts in Paris. There were no collegiate programs in architecture in Great Britain, and a few Americans studied at German schools.

Although MIT was officially established by an act of the Massachusetts legislature in 1861, it did not begin instruction until 1865 and courses in architecture were not offered until three years later. MIT offered five “courses” – or majors – one of which was “builder & architect” – to this day known as Course IV. The first two years of instruction for all undergraduates was the same, and specialized or professional instruction began in the third year.

Each discipline had a lead professor, and in architecture, it was the architect William Ware. Ware took a few years to develop the program, so that the first courses in architecture were not offered until 1868. He had few models of architectural instruction from which to put together a course at MIT. The four-years of classes that was standard in American higher education was quite different from the very loose atelier and competition system at the Ecole des Beaux-Arts in Paris, then the most prestigious architecture school.

But it didn’t matter so much in the early years, since the vast majority of students enrolled in architecture did not complete a four-year course. Most were special, meaning part-time, students. These were drafters working in architects’ offices or other aspirants, who took a course or two to help them get ahead. For more information go to http://mit150.mit.edu

William Ware had been trained as an architect in Robert Morris Hunt’s atelier, along with George B. Post, Stanford White and Henry Van Brunt. He held his position at MIT until 1881 when he went on to form an architecture program at Columbia University.
The article in the April newsletter on the 175th anniversary of the Otis steam shovel brought a response from one of our members, Norman Farrell of the Farrell Group in Easton, PA. It turns out that his grandfather William Elliston Farrell, wrote a series of four articles with the above heading, in the Excavating Engineer (Vol XXX, No 4 – 7, 1936) on the occasion of the 100th anniversary. These were far more detailed than our brief piece and contained some interesting snippets of information, such as:

- William S. Otis was in fact a distant relative of Elisha Otis of passenger elevator fame, as both were descended from John Otis who settled in Hingham, MA in 1631.

- While the first patent application was made in 1836, following the completion of what was thought to be the first steam shovel in Philadelphia, there is evidence that an earlier version was used on the Norwich & Worcester Railroad in Massachusetts.

- In Philadelphia Otis worked with various machine shops and mechanics, principally Eastwick & Harrison, to build seven machines. Of these only two remained in the United States. Four were sent to Russia and one to England.

- One of the American shovels was reported to have worked on the Baltimore & Ohio and then taken to Canada and used on the Welland Canal.

- The other worked on the Western Railroad of Massachusetts where the contracting firm of Carmichael, Fairbanks & Otis held a contract for the link between Springfield and Worcester. It was in the Springfield Republican of May 19, 1838 that the first reference was made to “digging by stame”, quoting the term used by the Irish laborers.

- The next sighting was on the Schenectady and Troy Railroad which was finished in 1842, followed by work in Brooklyn, NY at the Navy Yard and City Park.

- As noted above four of the original shovels were shipped to Russia in 1842 to work on the St. Peters-

burg to Moscow railroad. Fairbanks & Carmichael had a contract for the excavation of 25 million cubic yards. Major George W. Whistler was appointed consulting engineer for the work.

- The one and only shovel to arrive in England was put to use on the Eastern Counties Railway, where there was considerable opposition from the Irish ‘navvie’ gangs. It was called the “American Devil”!

- In both the US and England manufacturers and contractors were slow to capitalize on the productivity which the power shovels offered. In the US Otis’s patent had been taken over by O. S. Chapman who had married his widow in 1845 after Otis’s death in 1839. Chapman moved the manufacture to Boston at the Globe Iron Works, but it was not until the 1870’s that serial production began. The same was true in England where the Ruston-Proctor firm was known to be producing various models from 1877.

The First Steam Shovel
CHSA FALL MEETING, NEW YORK CITY – SAVE THE DATE!

WHERE: THE GENERAL SOCIETY OF MECHANICS AND TRADESMEN, 20 WEST 44TH STREET, NEW YORK, NY 10036

WHEN: SATURDAY, 29TH OCTOBER 2011, 9.00 AM – 5.00 PM

The Construction History Society of America one-day event this fall will be held in New York and will draw on that city’s long history of innovation in construction. Innovation is a double-edges sword, and the introduction of industrialization into construction, starting in the nineteenth century, has led to spectacular successes and spectacular failures.

Inventions over the last two centuries have driven vast changes in building design and construction. These include the well-known introduction of cast-iron, wrought-iron, steel, and concrete framing, but also lesser-known topics such as the industrialization of brick- and cement-making, the replacement of traditional wood joinery with new mechanical fasteners, and the search for more efficient and more effective fire-protection. In part, these changes were the result of the wide-spread industrialization that took place in the United States during the nineteenth and twentieth centuries, but they were also a response to building-related disasters. Collapses during construction, structural failures in general, catastrophic building fires and city-wide conflagrations all influenced how the public saw the changes in construction and how designers and builders saw their jobs.

Our meeting on October 29, 2011 will include both lectures and panel discussions on the role of disasters and the role of industrialization and innovation in construction technology. Speakers will include:

- P. Thomas Carroll (Executive Director of the Hudson Mohawk Industrial Gateway and Executive Director of the RiverSpark Heritage Area)
- Timothy Lynch (Executive Director of the Forensic Engineering Unit of the New York City Department of Buildings)
- Ronald Spadafora (Deputy Assistant Chief of the Fire Department of New York)
- Marilyn Kaplan (Preservation Architecture)
- Wendy Talrico (Brick Institute of America)
- And other representatives from the construction, design, and building communities.

The meeting is being organized by the Construction History Society of America. Registration will be available shortly; inquiries can be sent to DF@oldstructures.com.
Future Event of Interest to Our Latin & South American Members

First Conference on Luso-Brazilian Construction History

Two-day conference

Aims:
To discuss the present state of the art in the common Portuguese and Brazilian construction history, and to prepare the ‘First Congress on Luso-Brazilian Construction History’, to be held in Vitória, Brazil, in 2013. The conference will include keynote lectures and guest presentations, and will be open to interested researchers.

Email: historiadaconstrucao@gmail.com

Public Repository on Disaster and Failure Events

The Engineering News Record of April 25, 2011 reported that the National Institute of Standards and Technology (NIST) was expected to launch a pilot website of data on disaster and failures relating to earthquakes, hurricanes, tornadoes, fires, floods and the like. The article states, “...that the database will focus on recent events...and that later NIST hopes to add data from significant events from recent decades.”

Sounds like an opportunity for CHSA to contribute to this effort. If anyone has any connections with NIST, please let us know so we can make them aware of the expertise that resides within the Society.

Construction History Journal

Moves are afoot to encourage CHSA to produce an edition of the Society’s journal. Tom Leslie will be circulating the membership shortly seeking abstracts or paper ideas for submission later this year. If you would like to sound out Tom on procedure and check out any subject you may have in mind, contact him at tleslie@iastate.edu

15th Annual International Preservation Trades Workshop

This will be held in Lancaster, PA over August 2-6, 2011 with a focus on preservation and traditional trade techniques, tools, materials and practices. Visit www.iptw.org for more information.
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


Historical Construction Equipment Association, www.hcea.net

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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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