



Society for Industrial Archeology · New England Chapters

VOLUME 19 NUMBER 1 1999

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Carolyn Weatherwax, 1st Vice President
Walter Ryan, 2nd Vice President
Herman Brown, Treasurer
David Starbuck, Secretary

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Gregory Galer, Vice President
Michael Steinitz, Secretary
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PO Box 492
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NNE Chapter Spring Meeting and Tour Enfield, New Hampshire Saturday, May 15, 1999

The Northern New England Chapter will hold its spring meeting at Enfield Shaker Village on May 15 and will tour Shaker sites at this 18th to 20th century community. Other industrial sites in the area are also being lined up for tours in the afternoon.

Enfield is just 10 minutes north of Interstate Route 89 in western New Hampshire and is close to Hanover, White River Junction and the Connecticut River. Come and make a day of it!

Box lunches have been ordered from the Shaker Inn (on the premises) and a flyer will soon be in the mail. If you have any questions, call David Starbuck at (518) 494-5583.

Want More Tours? New Program Chair is Working on it... but you need to help!

With the election of officers for the Southern New England Chapter comes a new Vice President and Program Chair, an appropriate assignment for someone who has complained over the past few years about our limited tour schedule. Now that I have taken on this task I have to ask for assistance. Although I have been working on establishing a lengthy

list of possible tour sites I need the help of the membership in two ways.

First, please suggest sites (working factories and archeological sites) that you would like to tour. I would be particularly interested in hearing of sites in your area that you may know something about. Also, any site with which you have a contact would be very helpful. Fewer and fewer factories are willing to do tours, let alone on a Saturday, so having a contact person rather than making a cold call improves our odds of success dramatically.

The second way you can help is by reviewing the list below. This is a tentative list of companies I will be contacting by letter and phone to see if I can schedule a tour. If you have *any* contacts in these companies, please let me know.

In the mean time keep your eyes open for mailings of upcoming events. We will be shortly announcing the details of a weekday tour of Boston's Central Artery project (aka the Big Dig) in June or July. This tour will be limited to thirteen people, so be sure to respond promptly once you get the mailing. I am working on other tours too, but I need your help. Do you know anyone at:

Malden mills, Lawrence, MA
Plastics industry in Leominster and Fitchburg, MA
Belcher Foundry (aka Advanced Cast Products), Easton, MA
F.C. Phillips, Inc., Stoughton, MA
American Shoe Shank Co., Brockton, MA
Plymouth Rubber, Canton, MA

Continued, p. 3, col. 2

President's Report, NNEC

The Northern New England Chapter held its fall tour and business meeting in Bath, Maine, on Saturday, November 21, 1998. Approximately 30 people attended. The following officers were elected for 1999:

Krista Butterfield, President
Carolyn Weatherwax, 1st Vice President
Walter Ryan, 2nd Vice President
Herman Brown, Treasurer
David Starbuck, Secretary

Following the discussion of other Chapter business, the meeting was turned over to Ed Galvin, who, along with his colleagues, organized the meeting and tour. Ed introduced the tour leaders and presented the itinerary.

We began our tour at the Bath City Hall. This was led by Max Dawson. From the roof of the building, Chapter members were able to look at the Carleton Bridge over the Kennebec River, which was in the process of being rebuilt.

Fred Kahrl led a tour of the Stinson Sardine Cannery, which markets the *Beach Cliff* products commonly found in stores locally and throughout New England.

We then proceeded to the old mast pond. Jim Stilphen, our guide for this portion of the tour, pointed out that many of the old masts and the remnants of the old docks still rest beneath the water to this day, preserved due to the lack of exposure to air and the elements. The masts, made of local Eastern White Pine, were up to 6 feet in diameter.

After an excellent lunch at the Kennebec Tavern, our group returned to the Conley Building of Bath Iron Works, where we had earlier held our business meeting, to regroup for the afternoon portion of the tour. Ed and Bath Iron Works employees then led us on a tour of the Bath Iron Works Shipyard, where we observed ships in various stages of construction. Most impressive were the enormous cranes and the mammoth scaffolding used in the construction of the ships, many of them for military use.

Later, Ed Galvin took a small group to see the Great Bowdoin Mill in Brunswick-Topsham, the site of a recent fire. Plans for the portion of the complex which remain intact are to convert the facility into a micro-brewery and restaurant. Mark your calendar for May 15th — the NNEC will hold its spring meeting on that date, at Enfield Shaker Village in Enfield, NH. More details will be forthcoming in a flier later this month.

Krista Butterfield
Brownfield, Maine

President's Report, SNEC

On October 31, 1998, the Southern New England Chapter held its Fall Tour in Bridgewater, Massachusetts. The tour focused on the historic ironmaking resources of the southeastern Massachusetts region. In the morning 25 members toured the Henry Perkins Company iron foundry, established in 1848. In the afternoon the group toured the Bridgewater Iron Works site at Stanley, the site of New England's largest nineteenth century ironworks. There chapter members also participated in emergency documentation of a ca.1800 stone foundry building, taking large-format photographs and making measured drawings.

After the morning tour, the gathering held a brief business meeting consisting mainly of the election of new officers. Matt Kierstead was elected President, and Greg Galer was elected Vice President and Program Chair, the position previously held by Kierstead. Immediate Past President Michael Steinitz volunteered to serve as Secretary, and Past President Rick Greenwood offered to serve as Treasurer. Rick replaces longtime Treasurer Jack Yerkes. Thank you Jack for your service to the Southern New England Chapter!

In November, a number of Southern New England Chapter SIA members attended the National SIA's special retrospective/prospective conference,

"Whither IA?" at Lowell. An impressive gathering of U.S. and international industrial archaeology figures presented two intensive days of papers on various aspects of the discipline in an attempt to define IA and discuss its future. The general conclusion: IA is many things to many people and we like it that way, and education is the key to growth and recognition.

On Saturday, February 6th, the Southern New England Chapter SIA hosted the Twelfth Annual Conference on Industrial Archaeology at the Slater Mill Historic Site, Pawtucket, Rhode Island. The event included six papers in the morning, and tours of the Slater and Wilkinson mills, and the Bridge Mill hydroelectric power plant and an exhibit of industrial photography in the afternoon. The Southern New England Chapter thanks Slater Mill Director Gail Fowler Mohanty and the Slater Mill tour guides for their hospitality. Keep your eyes on your mailbox for information on upcoming tours. A spring tour is in the works, and a tour of Boston's "Big Dig" project, the lowering of the I-93 Central Artery through the city, is planned for this summer. We continue to welcome suggestions for tour sites or events from chapter members.

Matthew Kierstead
Pawtucket, RI

A Letter to the Editor From Richard Candee

Here are a few things of interest to New England SIA members. First a couple of essays:

"Domestic Industry in the Factory Age: Anglo-American Development of the 'Family' Knitting Machine," in *Textile History*, 29, no. 1 (Spring, 1998) 62-92, offprint Pasold Research Fund 1998 (and available at Belknap Mill, Laconia, NH, and American Textile History Museum, Lowell, museum shops).

"Lace Schools and Lace Factories: Female Outwork in New England's Machine-Lace Industry, 1818-1838," in

Textiles in Early New England: Design Production, and Consumption, Dublin Seminar for Early New England Folklife series (Boston: BU: 1999). [This is being printed in March so it should be out by the time the Newsletter is in print.]

I am teaching a class on the New England Industrial Landscape this semester and students are all working on a review and update of Peter Stott's wonderful, but unpublished, IA survey of MA and recent PAL updates. This covers Boston and towns within Rt. 128 and will result in brief entries for a new guidebook on *Metropolitan Boston* in the "Buildings of the United States" series sponsored by the Society of Architectural Historians. Myself and several other Boston University and area authors are working on this for a Dec. 2000 deadline, which means I am likely to teach the class again next spring. All suggestions welcome — especially newer structures we might forget or truly obscure ones — in order to have the best IA sites included.

This week I am off to England to give a paper: "Immigrant frame workers in America: East Midland contributions to knitting in the United States, 1820 - 1900," at "The Legacy of Hosiery" conference, Leicester, England, March 19, 1999, sponsored by the Leicester Museum Service and Pasold Research Fund.

You might also note "Those Inventive Aikens," the traveling panel show will move from the Franconia (NH) Public Library to the New Hampshire Historical Society in April. I will do a talk there Sunday, April 18. It goes to Enfield (NH) this summer and then to Newport, NH. We got great Public Radio and press coverage in Franklin.

One more thing. There is a terrific exhibit on *Portsmouth Whaling* at the Portsmouth (NH) Athenaeum Gallery, March 21 through June, I think. Call Jane Porter there for details (603) 431-2538.

Richard Candee
York, ME

International Bridge Conference: Wheeling Suspension Bridge

The 150th anniversary of the opening of the famous Wheeling Suspension Bridge will be celebrated with an international conference on historic bridges scheduled for October 20-23, 1999. Well-known historians of technology, together with engineers involved in the preservation of historic bridges, will present papers over a two-day period. The conference will feature a promenade on the newly renovated suspension bridge, a tour of

local historic bridges, a reception in the 1859 U.S. Custom House and a gala conference banquet. This is the sixth in a series of historic bridge conferences.

For information contact: Emory L. Kemp, Institute for the History of Technology and Industrial Archaeology, 1535 Mileground, Morgantown, West Virginia 26505, phone (304) 293-7169, fax (304) 293-2449, or E-mail LSypolt@wvu.edu.

Want More Tours? (continued from p.1)

Bay State Paper, Boston, MA
American Optical,
Southbridge, MA
United Lens, Southbridge, MA
Foster-Forbes Glass Division,
Milford, MA
Benjamin Moore Paint,
Milford, MA
American National Can Co.,
Milford, MA
Wyman Gordon,
N. Grafton, MA
Norton Company,
Worcester, MA
Washington Abrasives,
Grafton MA
Quabbin Reservoir,
Orange, MA
L.S. Starrett Co., Athol, MA
Lamson-Goodnow Cutlery,
Shelburne Falls, MA
Crane Paper, Dalton, MA
Bonner Granite, Westerly, RI
Rhode Island Tool Co.,
Providence, RI
Anchor Glass Container,
Dayville, CT
Newcomb Spring,
Southington, CT

Please contact Greg Galer, 9 Day Street, North Easton, MA 02356. W: (508) 565-1403, H: (508) 230-0922.

Beckley Furnace Stabilized By State of Connecticut

Through the organization of a local citizen's group, the State of Connecticut has finally begun to take more than a passing interest in one of its properties — Beckley Furnace — at East Canaan, CT. Also known as Canaan #2, it was among the few final blast furnaces that survived past World War I.

The furnace was built by John Beckley in 1847, with a 30-foot-square base, a 9-foot diameter bosh, and was 32 feet 9 inches tall. In 1856 it was modified to operate at warm blast, and two years later, was acquired by the Burnum Richardson Company. The furnace was updated again in 1880. A fire in 1896 almost destroyed the operations, but it was rebuilt, this time to 40 feet high, with blast provided through five water-cooled tuyeres (nozzles), a state-of-the-art water-cooled hearth, and possibly the modern turbine that still remains in place at the dam. The works last operated during the winter of 1918-19. The State of Connecticut purchased the furnace and immediate grounds in 1946 for a park, and since then, little has been done to preserve the stack. A high chain-link fence was added a few years ago to protect sight-seers from falling stones.

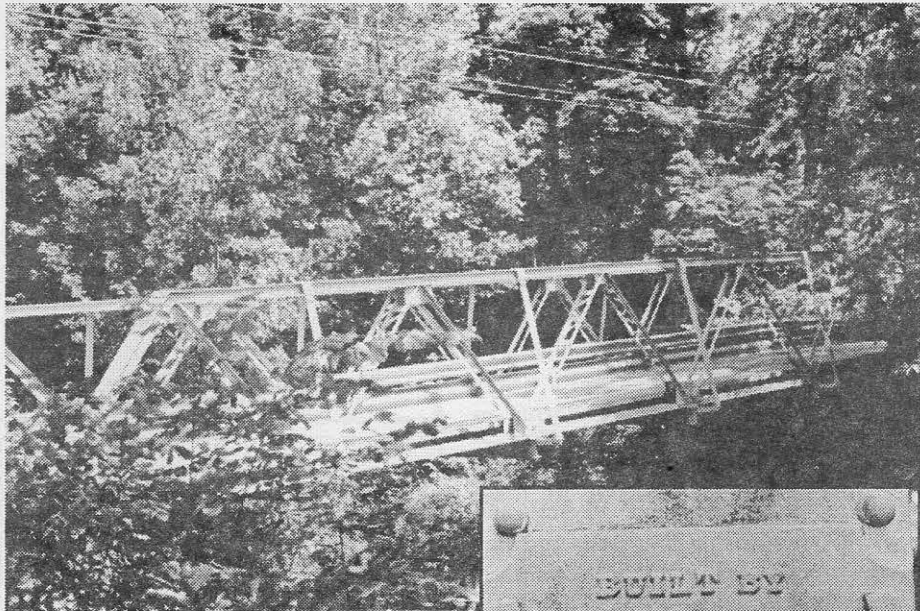
In 1996, Fred Hall, North Canaan Town Historian, contacted Edward Kirby of Sharon and asked for input to help preserve the deteriorating stack. A

Continued, p. 6, col. 1

Preserving Historic Bridges in Connecticut

A number of historic bridges in eastern Connecticut have recently benefited from the preservation efforts of local citizens and State and municipal agencies. In Mansfield, the Mount Hope Road Bridge (HAER No. CT-149), a 1901 steel pony truss that is the earliest known surviving bridge built by the Berlin Construction Company, will be re-erected as part of a regional hiking trail. The Berlin Construction Company was formed in 1901 by former employees of the Berlin Iron Bridge Company, the state's leading 19th-century bridge builder, after it was absorbed into the American Bridge Company consolidation. The new Berlin firm built numerous spans throughout New England during the early 20th century, using standard riveted Pratt and Warren-truss designs; it remains in business today as Berlin Steel. The Mount Hope Bridge will carry the Nipmuck Trail over the Fenton River a short distance from another relocated structure, the Cider Mill Road Bridge (HAER No. CT-150), built in 1914 by the American Bridge Company and originally located on the Willimantic River separating the towns of Mansfield and Coventry.

The Berlin Iron Bridge Company, best known for its patented lenticular or "Parabolic" truss, is represented in the region by three bridges. The River Street Bridge in Plainfield is a 108-foot-long lenticular through truss with wrought-iron members and pinned connections. In accordance with an agreement among the Connecticut State Historic Preservation Office, the Connecticut Department of Transportation (ConnDOT), and the Federal Highway Administration, the bridge has been recorded to the standards of the Historic American Engineering Record (HAER No. 179). Like the Mansfield bridges, it will be dismantled and stored for relocation, though a definite site has not yet been identified. The bridge was one of several structures built by the Town of Plainfield following the disastrous flood



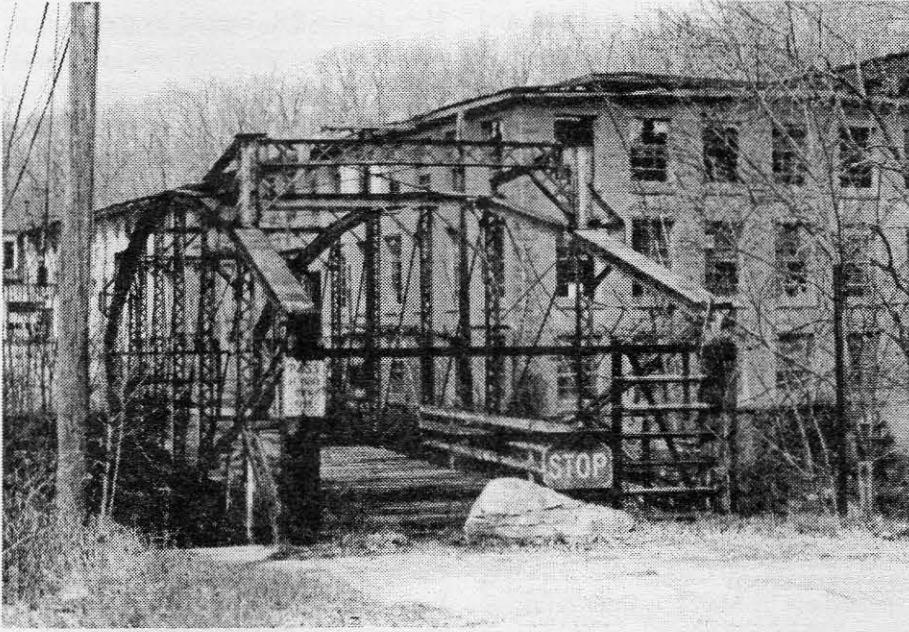
Mt. Hope Road Bridge (Berlin Construction Company, 1901) in its original location. It is now dismantled but soon will be re-erected on a hiking trail.

Builder's plate, Mt. Hope Road Bridge. The year 1901 was the company's first year of operations.



River Street Bridge (Berlin Iron Bridge Company, 1886), to be dismantled for possible reuse elsewhere.





Glens Falls Bridge (Berlin Iron Bridge Company, 1886). A new wooden deck will create pedestrian access to Moosup Valley Trail.

of 1886, which swept away bridges throughout eastern Connecticut and Rhode Island. Immediately upstream on the Moosup River is the Glen Falls Bridge, a 124-foot Berlin lenticular through truss at the same time. The Town has received a planning grant from the Shetucket River Heritage Corridor to begin preparations for the re-use of the bridge *in situ* as an access point to a planned Moosup Valley State Park Trail, which will connect with existing trails in Rhode Island. The bridge had been closed to traffic for many years and its wooden deck was severely deteriorated; once warm weather arrives, however, the Town is poised to begin re-decking the bridge so as to open it for pedestrian use. The bridge was recently nominated to the National Register of Historic Places as part of a cooperative effort by ConnDOT and the Connecticut Historical Commission to list all remaining Berlin Iron Bridge Company structures.

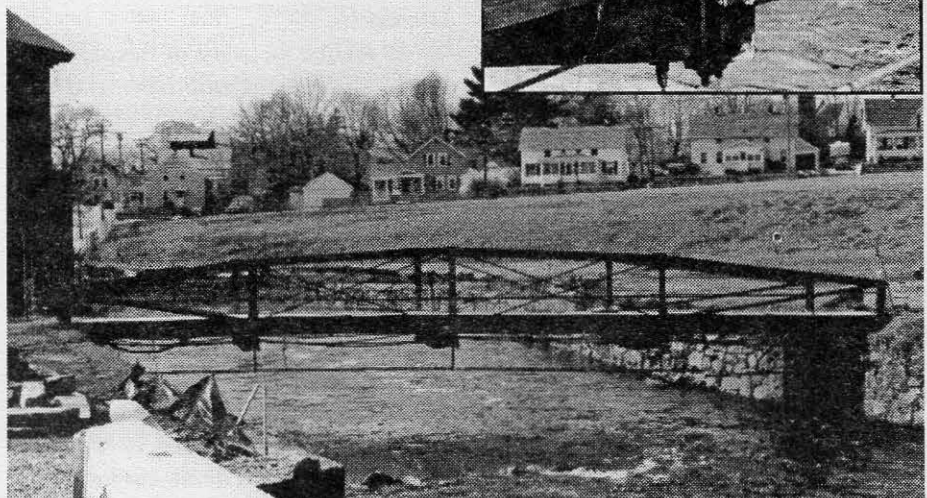
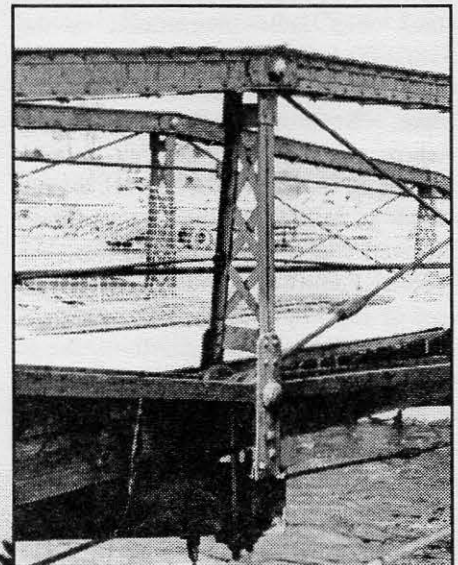
Another bridge built in response to the 1886 flood is the Ashland Mill Bridge in Jewett City, a borough within the Town of Griswold. A 65-foot lenticular pony truss, it too is the product of the Berlin Iron Bridge Company and

was recently nominated to the National Register of Historic Places. The Town of Griswold hopes to incorporate the bridge as a pedestrian way within a Veterans Memorial park under construction on the site. The bridge is one of few resources associated with the Ashland

Ashland Mill Bridge (shown below with detail of pinned connections and tapered uprights shown at right) constructed by Berlin Iron Bridge Company, 1886, part of a park to be built on the site of a textile mill destroyed by fire.

Cotton Company, once a locally prominent textile manufacturer. Following the flood of 1886, the company paid to erect both this bridge for its own access road and a larger Berlin structure to carry Ashland Street over the Pachaug River.

Such preservation efforts are critical to saving an important part of the state's industrial heritage. The Berlin Iron Bridge Company at its height employed 500 workers at its East Berlin fabrication plant and built hundreds of its distinctive highway bridges in Connecticut, yet today fewer than 20 survive. David Poirier, archeologist with the Connecticut Historical Commission, coordinated these efforts for that agency, which serves as the SHPO. Ralph Steadham heads the environmental planning unit at ConnDOT. Bruce Clouette, now with Public Archeology Survey Team, Inc., was the historical consultant for the documentation and nomination components.



Beckley Furnace Stabilized

(continued from p. 3)

Site studies by Carla A. Cielo, Bill Edwards, Vic Rolando, and others followed. That November 19th, the "Committee for the Preservation of the Buckley Furnace" was formed by Bill Adam (descendant of Samuel Forbes Adam, who built the first blast furnace in North Canaan), Fred Hall, Gabriel Seymour, Tony Cantele, Walt Landgraf, Bill Solan, Anna McGuire, and Kirby. Three days later, members of the Committee conducted a site visit with Nick Bellantoni, Connecticut State Archeologist, and David Poirier, Connecticut State Historical Commission, all of whom expressed support for the preservation of the furnace and site.

A preliminary report on preservation of the stack was written by Carla A. Cielo on January 3, 1997, and the price tag for stabilizing and preserving the stack was later determined to be \$186,000. On February 27, 1998, through the hard and effective efforts of State Senator Del Eads and Representatives Phil Prelli and Andrew Roraback, the State of Connecticut provided \$250,000 for the project. Also received was a \$10,000 grant from the Wellner Family Community Trust, created in 1995 by the late Lois I. Wellner of North Canaan, to benefit organizations providing educational, recreational, and other services to the Town. In additional \$6,000 came from selling prints of a painting of the furnace by A.N. Wyeth.

During 1998, Ryan-Biggs of Troy, NY, (Steve Sopko) were chosen to provide architectural expertise, and Joseph Gnazzo Co., of Vernon, CT, for engineering. The Project Manager is Robert McNulty of the State Department of Public Works. A number of on-site conferences were held through the year, and actual work finally started in November with archeology work by Fred Warner and roofing of the stack by Gnazzo. An assessment of the work was made December 8th by all principals plus staff

of the State Historical Commission, and on the 17th, members of the Beckley Furnace Committee plus Rolando, Sopko, Warner, and others, inspected the furnace ruins of nearby Copake Furnace, NY, with permission of Tom Scofield, Park Manager, to gain some technical insight.

This year promises to provide many changes at the old furnace stack and its surrounding little park alongside the Blackberry River. The site is located between Lower Road and the river, about a half mile southwest of East Canaan (Route 44). For those interested in further information on the area's iron-works industry, *Echoes of Iron* by Ed Kirby (150 pp., 60 illus., 8-1/2" x 11") is expected out by March 1. Oder/information: \$15.00 to Sharon Historical Society, 18 Main Street, Sharon, CT 06069.

Victor R. Rolando
Bennington, VT

NEW PUBLICATIONS

Southern New England RR

Between Palmer, MA, and Providence, RI, remains of an unfinished railroad have long attracted attention. In regional folklore, residents refer to this railroad as the "Old Grand Trunk" and relate its story to the liner *Titanic*, which allegedly took the money needed to finish the project to the bottom of the Atlantic.

In reality, the story of this rail line, officially the Southern New England RR, is far more complex than the myth. Like the iceberg that sank the *Titanic*, most of the substance is invisible, almost as if the remains on the surface are meant to disguise the full magnitude of the project.

What seems at first to be a relatively inconsequential railroad branch some 85 miles in length is actually the outward evidence of New England's last major railroad war. Around 1910, when railroads were still a dominant force, the

New Haven RR, backed by the Morgan financial power, seemed to have achieved a transportation monopoly in New England.

Then it was challenged by the Grand Trunk Ry, a bold rival drawing on British capital. The resulting conflict involved all of the New England states, caused political repercussions that reached the White House, and became a defining incident of the Progressive era.

The full story is told in a recently published book by Larry Lowenthal: *Titanic Railroad: The Southern New England*. It is a 264-page hardcover book, copiously illustrated with construction photos and other material, and can be purchased from: Marker Press, 6 John Haley Rd., Brimfield, MA 01010. The price is \$39.95 + \$3.95 handling and \$2.00 sales tax for Massachusetts residents.

[Larry Lowenthal has been a historian with the Boston Support Office of the National Park Service for many years, working on diverse projects throughout the Northeast. He lives in Brimfield, MA, not far from the ruins of the Southern New England RR. He has written several other transportation-related books, most recently *From the Cornfields to the Hudson* (the story of the Delaware and Hudson Canal)]

SNEC Members Publish Book on Connecticut Ironworks

Greg Galer (SNEC), Robert Gordon (SNEC), and Frances Kemmish recently published *Connecticut's Ames Iron Works: Family, Community, Nature, and Innovations in An Enterprise of the Early American Republic*. The book examines a nineteenth century iron-works run by Horatio Ames and explores its role in the development of American industry. It is published by the Connecticut Academy of Arts and Sciences as a special issue of their *Transactions*. The Academy was founded in 1799 and has been publishing scholarly articles since 1810.

The well illustrated book explores

the difficulties and complexities of establishing an industrial enterprise in the 1830s and follows the struggles undertaken by Horatio Ames and his associates through about 1870. Although physical evidence at the Salisbury District site of the Ames works itself is limited, the authors utilize the landscape of the community that once surrounded this extensive industrial facility to supplement archival materials. Visiting the site today, it is hard to believe that nearly three hundred workers once made huge shafts for steam boats and some of the largest cannon manufactured for the Union (that could hurl shells over six miles) at this now wooded site.

Connecticut's Ames Iron Works brings alive the people and processes of the nineteenth century. The book explores how workers and managers forged new social relations as developed innovative technologies to manufacture products of unprecedented size, scale, and quality. Meanwhile, they constantly struggled with the vagaries of nature upon which they relied for power, transportation, and raw materials, as well as the finicky characteristics of an immature national economy. Although by mid-century this Ames Works achieved some successes, lasting success was elusive. The book demonstrates that despite common beliefs, innovation, reinvestment, and dogged entrepreneurship do not assure prosperity.

Connecticut's Ames Iron Works can be purchased from the Connecticut Academy of Arts and Sciences for \$10.00 per copy plus shipping. Quantity discounts are available. Contact the Connecticut Academy for details at (202) 432-3113 or CAAS@yale.edu.

BRIDGE OFFERING
Historic Pratt steel truss
highway bridge.

See Connecticut Department of
Transportation Website.
[http://www.State.CT.US/dot/
whatsnew/index.htm](http://www.State.CT.US/dot/whatsnew/index.htm)

Crystal Lake Falls Brick Kingdom Historic Park

Historic Bridge

Thanks to a bridge reuse program run by the Vermont Agency of Transportation (AOT), the new old bridge now spans the stream at the Crystal Lake Falls – Brick Kingdom Historic Park in Barton, Vermont. It is a Warren pony truss steel bridge with canted ends, built in 1906. It was formally Bridge #21 on Highway 13 in Middletown Springs, Vermont, and was moved to Barton in 1997. The bridge had been stored in the AOT garage in Clarendon, Vermont, waiting for a home in the rural Northeast Kingdom.

In 1995 the Crystal Lake Falls Historical Association (CLFHA) applied for an ISTE grant for the historic factory site, pointing out the area's links to the history of transportation — and to today's need for walking trails through the park and a connecting link to bicycle routes around nearby lakes. We asked for funds to replace the old bridge over the stream into the park, stabilize one of the 3 remaining brick factory buildings for use as an outdoor museum, and create paths and trails through the hilly 3-plus acre stream-side site with historic signs and safety fencing.

Park Site

The park site is located in a steep, wooded slope above waterfalls and dams along the outlet stream from nearby Crystal Lake. The "Brick Kingdom," named by local fifth graders who visited the old factory site, contains the ruins of 3 brick buildings built in 1922 for the Wassell, Nickel and Gross Piano Action Factory. On the site from the late 1790s through 1952, when the site was abandoned, were various sawmills, gristmills, furniture factories and shops, a woolen mill, ladies' garment factory, and a machine shop. The park land and the adjacent Pierce House, an 1820s home that serves as the CLFHA Museum of Industry and Education in Barton, were given to the Crystal Lake

Falls Historical Association by Ralph Delahaye Payne, who summered in Barton.

At first goods were produced here from local raw materials and made into finished products for local consumption (grain to flour, sheep's wool into cloth). Then after the railroad construction reached Barton in the 1850s new industries began. In the 1890s Peerless Ladies Underwear Company brought in cotton cloth and transformed it into lacy confections which were shipped out of Barton, while the J.W. Murkland Company shipped iron plows, candy making machines and stoves all over America in the early 1900s. In the 1920s Wessell, Nickel and Gross advertised their piano actions as the best and most expensive in the United States and sent them all over the country, until the depression and the advent of radio and the player piano cut into the demand for pianos and caused the firm to go out of business. Dams across the Crystal Lake outlet stream with its 90-foot drop provided direct water power, and steam and electricity were also used over the years.

Grants (Funding)

CLFHA received the ISTE grant in 1996, for exactly half the funds we had asked for.

What to do? The Vermont Agency of Transportation, in the person of Bob McCullough, came to our rescue. He runs the Vermont Historic Bridge Program, whereby older steel bridges that are unfit for heavy vehicular transportation are reused for pedestrian or snowmobile traffic in various Vermont communities. The AOT pays 80% of the costs, and the recipient pays the rest. CLFHA is a volunteer organization with very limited funds, but a grant from the Preservation Trust of Vermont, headed by Paul Bruhn, provided the missing 20%.

By now we had two bridges in the works — one for the lower entrance to the park, where J.W. Murkland's machine shop and foundry stood, and one for the upper entrance, behind an 1896 gristmill-store (still standing, now

dealing in hardware and farm feed). The lower (1906) bridge was put in this autumn, and the upper bridge is scheduled for spring of 1999. The upper bridge, built in 1921, is a square ended Warren pony truss type, the only one in Vermont, and is present in Barton, stored behind the State Highway garage and winter salt and sand piles. AOT purchases deck timbers from the Vermont Department of Corrections sawmill, and

the bridges are repaired and painted before they are placed over the stream. It was a spectacular sight when the lower bridge, on wheels, made a precipitous run down a very steep hill.

CLFHA's project manager, Tom Stelter, has found funding from several local and state agencies. A grant from the Vermont Agency for Forests, Parks and Recreation enabled CLFHA to employ a Vermont Leadership Center

summer crew of local boys and girls to build paths, trails and footbridges in the Brick Kingdom. Stabilization of the brick buildings has not been started yet and there is much work to be done, but the beauty and fascination of the steep site is now accessible to visitors.

Robin Tenny
Crystal Lake Falls
Historic Association
Barton, VT

Legal Notice: *Cultural Resource Consulting*

The Connecticut Department of Transportation (ConnDOT) is seeking to engage cultural resource consulting services on an on-call basis. Two firms will be retained to provide archeological investigation and historic documentation studies for transportation projects in accordance with state and federal regulations, particularly, the Connecticut Historical Commission's Environmental Review Primer, Section 106 of the National Historic Preservation Act of 1966, the Historic American Building Survey (HABS) and the Historic American Engineering Record (HAER), the National Environmental Policy Act (NEPA), and the Connecticut Environmental Policy Act (CEPA).

Each agreement period is expected to commence in mid-1999 and be for three years with a one-year extension option. The scope of work and fee for each assignment, under each agreement, will be negotiated individually.

If you desire to be considered for these on-call services, a letter of interest must be submitted. The letter should include the name and resume of the individual who will be assigned as the Project Manager in charge of the work, as well as the assurance that they will be available for work when required. It should also include a narrative description of overall staff size, relevant qualifications and certifications, and discipline experience, as well as expertise in:

- Research and data gathering of background information

- Pre-historic and historic archeological reconnaissance, intensive investigation, and data recovery

- Laboratory processing, cataloging and analysis, and curation

- State and federal-level historic documentation and recordation of sites and structures

- ConnDOT policies and procedures

- Project management, e.g., simultaneous multi-project capability, assignment scheduling, progress reporting, timely response to inquiries, on-time report submittal

- Report preparation

Your letter of interest should also list all other certifications and technical abilities, such as Railroad Safety Awareness Training, OSHA Hazard Identification Training, GIS capabilities, and others.

Each successful firm will be required to have 1) at least one archeologist on staff capable of executing archeological assignments, 2) in-house laboratory and curation capabilities, and 3) the capability of submitting archeological surveys and historic documentation via appropriate electronic media.

A Consulting Evaluation and Selection Panel may use documentation completeness as one of the bases for selection. Failure to have these items in place will result in the award of the project to the next qualified firm on the final selection list.

If your firm is called in for an inter-

view, you must be prepared to provide proof of the following: corporate registration (if applicable), a ConnDOT-approved Affirmative Action Plan, an executed resolution authorizing a designated principal of your firm to contract with ConnDOT, and a ConnDOT-approved audit of Burden, Fringe, and Overhead.

The selected firms will be required to maintain insurance coverage. Prior to the start of the negotiations process, proof of coverage must be submitted for General Liability, Automobile, and Valuable Papers coverage on Form CON-32, and for Professional Liability Insurance coverage on the short 8-1/2" X 11" DOT DOC-001 Form dated 8/86.

Circumstances may require the rescheduling or cancellation of projects. Should this be necessary, ConnDOT would be under no obligation to provide supplementary work for the firms. ConnDOT reserves the right to award cultural resource study assignments to other qualified firms.

All letters of interest shall be addressed to: Edgar T. Hurle, Director of Environmental Planning, Connecticut Department of Transportation, 2800 Berlin Turnpike, P.O. Box 317546, Newington, CT 06131-7546. They must be postmarked or received by 4:00 p.m. ESDT, Friday, May 28, 1999. Hand delivered letters should be brought to the Office of Environmental Planning, Room 2155, at the Berlin Turnpike address.

Tragic 1907 Dover Mill Fire is Recalled

[Editor's note: The following article by Nelson Lawry appeared on page 4 of the *Dover (NH) Times*, January 28, 1999.]

Adorned with a one-cent stamp, postmarked by the Alton Bay & Dover Railway Post Office, and dated precisely 92 years ago today, a postcard addressed to Miss Marion Kimball, Tamworth, NH, reads: "Jan. 28, 1907. 10 a.m., the fire is still burning — they have got 4 streams of water on now — this (photograph) was taken Sat. noon. It was cold for the firemen — they only worked 1/2 hour at a time. Ralph."

That Saturday, the day the postcard photo was shot — *fast work* to get these cards out for sale — was Jan. 26, 1907. At around 6:30 a.m., what would become a disastrous fire began on the fourth floor of the Cocheco Manufacturing Company's five-story New Mill No. 1 on Washington Street.

Its origin was probably a powerful spark from the main belt driving the carding, spinning, and weaving machinery, setting alight a wooden boxlike housing through which the belt passed.

Between 450 and 500 men and women operating the 50,000 spindles and 1400 looms that equipped the mill. Despite the heavy metal fire doors and automatic sprinkler system in the place, the fire spread rapidly through the top two stories, fed by the lubricating oil that had accumulated in their wooden floors since the mill building had been erected 30 years before. The fifth story lacked the sprinkler equipment, and in short order the floor became the building's death zone.

Overseers and foremen began getting their people out at once; Agent Charles A. Fish quickly arrived on the scene and assumed an aggressive leadership role; the fire department was sum-

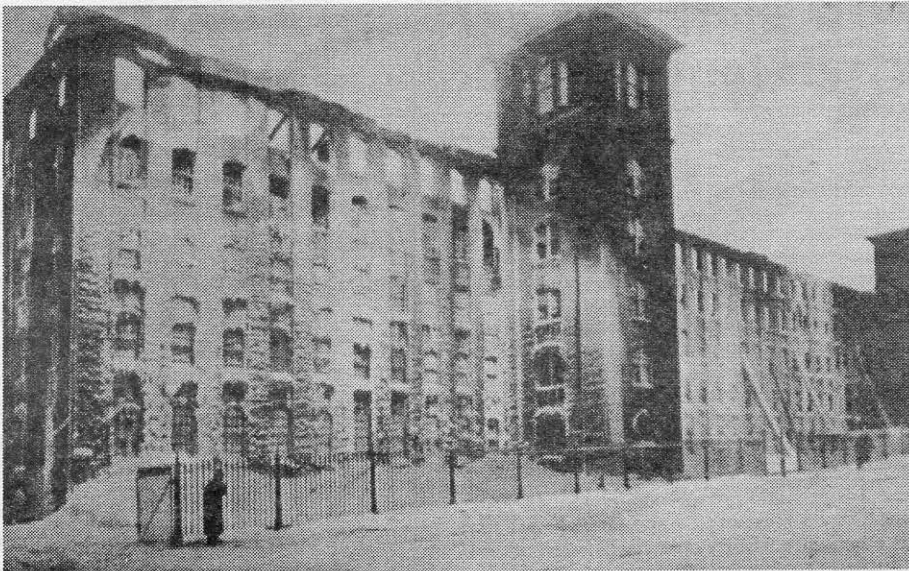
moned and responded promptly. But even so, these measures were not sufficient. The electric lights failed soon after the fire developed in earnest, resulting in smoky darkness that greatly hindered flight and created panic.

There was but one fire escape, at the building's rear, and workers trapped in pockets of flame on the upper two stories headed toward the windows if they could. Most slid down hemp escape lines quickly slung, mainly along the east end wall (near the present foot-bridge), suffering terrible rope burns and lacerations on their hands. Others jumped from these stories, breaking legs and arms. Many of the operatives had been lightly dressed in their hot working spaces, some without shoes, and they faced awful conditions outside, as a morning snow storm worsened.

The temperature, initially 10° F, fell steadily toward the zero mark, as the day progressed. The rescued workers were given blankets and taken to private homes where they were attended by the three physicians called to the scene. Many then had to be transferred by the single city ambulance or by sled to Wentworth Hospital. One French Canadian lad, barefoot and thinly clad,

In the bitter cold of January 26, 1907, smoke billows from Cocheco Manufacturing Company's New Mill No. 1 on Washington Street, Dover, New Hampshire. The fire would take five lives and cause more than \$1 million in damage. This photograph was probably shot sometime before noon, as only a small crowd has gathered. Photo courtesy of Robert A. Whitehouse and the Dover Public Library.





The frost encrusted north front of New Mill No. 1 appears a few days after the fire. Note the tall rescue ladders bowed by the massive coatings of ice and fused to the mill wall. Special officers assigned by the city marshal are on duty to prevent looting. Photo courtesy of Robert A. Whitehouse and the Dover Public Library.

ran off after his rescue, but he was badly frostbitten before he reached his home on Everett Street.

The fire department did not initially arrive in strength and its firefighters did not at first act with efficiency. Perhaps it was the terrible cold, or perhaps they were daunted by the great difficulty of their task. Increasingly tied to the city's extensive hydrant system, the department failed to maintain its three fire steamers in top condition, despite a conflagration 10 months before that had gutted the Masonic Temple two blocks away. Moreover, the failure to recognize modern urban needs and traditional Yankee frugality had conspired to put off the purchase of a mobile fire tower, a piece of equipment deemed essential in most 20th century American cities.

Only the smallest steamer, *Cochecho* 2, arrived at the scene initially. Because the pressure in the water mains was too low for hose water to reach the mill's top two stories, the steamer drew water from the river. Its streams dissipated into spray, however, and were not effective in throwing water to that height and distance.

The hose water turned immediately to ice on the building walls. Where it dripped from the cornices and the tall rescue ladders, it created massive and dangerous icicles. Not only that, it froze within the hoses making them brittle and

easily cut up by the horseshoes of the civilian traffic that drove heedlessly over them. Too frequently new sections of hose were needed to replace the damaged ones.

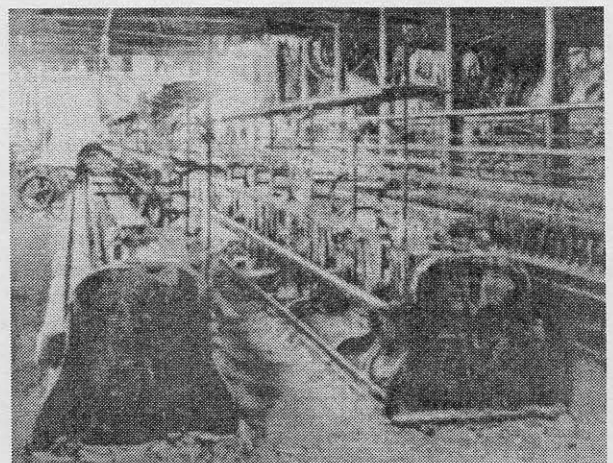
The early confusion did not prevent the firemen from acting with their customary courage. In the bravest deed of the day, to rescue four men shouting from a fifth story window, Lieutenant Patrick Bradley of Dover's Hose Company No. 1 ascended a tall, ice-encrusted ladder that was too short by a dozen feet. While he lashed the bottom of an extension pole to the top of the ladder, cool James Connors above did likewise with the top of the pole, securing it to the window frame. The four men slid down the pole while Bradley stood by on his icy perch to assist them.

Before another piece of Dover equipment came to the scene, assistance was requested from Portsmouth. At 9:15 a.m. the Port City's Hose 1 and its wagon, along with fire steamer *Sagamore 1*, arrived to join the Dover firefighting effort. *Sagamore* needed to be thawed twice after its frigid journey before it got on line. It was not until the Portsmouth personnel were on the scene fighting the fire that another Dover fire engine joined the battle.

Steamer *Fountain 3* inexplicably arrived with a cold firebox — and thus an unfired boiler — despite the time elapsed since the fire had been reported. *Fountain* got into operation after a long delay, but even then its steam pressure could not be maintained, and it never became an effective addition in fighting the fire.

Textile machinery stands ice-laden and idle after the fire swept through New Mill No. 1.

Photo courtesy of Robert A. Whitehouse and the Dover Public Library.



Cocheco 2 proved to be the little engine that could, pumping faithfully until 10 a.m. on the 27th. Much of its effort was directed toward the third story, where the fire had spread after part of the fourth floor had collapsed.

What made all the difference and saved much of the mill was the pumping apparatus of the I.B. Williams Belt Factory upriver. Williams, once part of the Cocheco Manufacturing Company's diverse production efforts, had become independent in the late 19th century, but in 1907 it continued to provide most of Cocheco's heavy industrial belts. Williams firefighting apparatus included high pressure pumps and special deluge nozzles that threw two solid streams of water more than 2000 feet, and by far constituted the most effective equipment in dealing with the fire that raged on the top two stories.

As evening fell, so did the temperature, to less than -20° F in the dead of night. A leak in the Sixth Street water main dropped the pressure precipitously.

It was not repaired until late that night after a herculean effort by the water department, but fortunately, the pumps at the belt factory continued to run all night long.

By the early morning, when the temperature had recovered somewhat to -14°, both the firemen of the first shift, weary and all but immobilized by the water frozen onto their coats, and their reliable but frozen up *Cocheco*, needed respite from the long day and night of battling the fire. At that time, the shift was at last relieved, and somewhat later, the steamer was taken back to the station to be thawed. Then the engine returned to the fight, dealing with the flames that kept erupting back into life here and there until the following day, the 28th.

After the fire was at last extinguished, four bodies were discovered inside the gutted mill. All of them were teenaged boys, and three were immigrants: John Cosgeren, 16, from Ireland, and Constantine Eleopoulos, 16, and

John Nicolopoulos, 17, both from Greece. The fourth lad was Alfred Barron, 18, of Dover. Another worker, a man named Genesee from South Berwick, remained missing on Jan. 28.

The legend survives to this day that some of those killed had been rescued, only to rush back into the building to recover personal belongings. A woman had indeed been stopped when she attempted to re-enter to get her pay envelope left behind, and that attempt probably gave rise to the tale. The four dead had worked on the sprinkler-absent fifth floor, and died early in the fire, probably overcome by smoke before they could escape.

English-born James Ashburn, 57, thereafter succumbed in the hospital. He had jumped from four stories up, breaking a leg and sustaining internal injuries. Even worse, he had suffered heavy smoke inhalation. His death completed the events of the 28th, and marks the final tragedy of the Dover mill fire of January 1907.

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