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EDITORIAL

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ROCKY RIVER PUMPED STORAGE HYDROELECTRIC PLANT NAMED A NATIONAL HISTORIC CIVIL ENGINEERING LANDMARK

New York, NY - The Rocky River Pumped Storage Hydroelectric Plant at New Milford, Connecticut, has been designated a National Historic Civil Engineering Landmark. The designation was made by the American Society of Civil Engineers, a 100,000 member professional engineering society headquartered in New York City.

The Plant was the first such major civil engineering project in the United States. Completed in 1929, the facility created Candlewood Lake and provides economical power from the Housatonic River.

A pumped storage project is one that pumps a major portion of the water to a higher reservoir where it is stored and then released to generate electric power at times of the day or season when it is needed and has higher value. The foresight of the Rocky River project engineers led the way for future pumped storage facilities throughout the country. Paul L. Hesloh, Sponsor Engineer, U.G.I. Contracting Co. of Philadelphia, wrote in 1928 that "a plant that can pump its own water supply sounds absurd on the face of it, yet this is virtually what happens in the case of the Rocky River Hydro Plant just being completed by U.G.I. for the Connecticut Light and Power Co."

A bronze plaque will be presented to Northeastern Utilities, the owner of the project during ceremonies scheduled for the afternoon of Tuesday, April 9, at the Plant site in New Milford, Connecticut. For more information and/or reservations for the dinner which follows call (203) 265-6014.

At the joint meeting of the Southern and Northern New England Chapters of the Society for Industrial Archeology, held at Old Sturbridge Village on November 3, 1984, it was resolved that the Chapters' publications and announcements will henceforth be distributed only to Chapter members. For anyone who has enjoyed receiving information from the Chapters over the past several years, but has received announcements on a complimentary basis, you are strongly urged to join a Chapter at this time because otherwise this will be your last Newsletter. And, of course, to those of you who already belong, we are delighted to have you as members and look forward to your continued interest and support for industrial archeology!

Also, we have quite a few institutional members but believe that there may be many more who would like to join if they knew of our existence. If you can recommend any institutions that you believe should be added to our mailing list, please contact me or one of the Chapter Presidents, and we'll send them a complimentary Newsletter and a brochure describing Chapter activities. We would like to see the Chapters grow but can do so only with your help!

David Starbuck
Rensselaer Polytechnic Institute

NEW MEMBERS SOUGHT

Both the Southern and Northern New England Chapters are eager to accept new members! If you would like to join and receive the Newsletter, please fill out the membership application on the back and send it in.

PRESIDENT'S REPORT, SNEC

1984 was an important year of accomplishment for the Southern New England Chapter. Our work sponsoring, organizing, and very successfully producing the 13th Annual Conference of our parent Society for Industrial Archeology was a major achievement and a milestone in the history, not only of the Chapter but, many feel, of the national organization as well. Held in Boston in mid-June, the Conference featured extensive touring of the IA of the southern and central parts of metropolitan Boston within Route 128. The hard work of the dedicated organizing committee produced an opening reception for both SIA and TICCIIH conference attendees; a fine evening program of musical entertainment; two days of guided tours and the accompanying compact, yet detailed and fully mapped guide brochures; a day of 4 simultaneous paper sessions featuring about forty presentations; and a memorable evening event combining more IA site touring with the Conference dinner and an IA cruise of Boston Harbor. Several important IA sites were made accessible for the tours, including the General Dynamics Quincy Shipyard, the East Boston Pumping Station, the Chestnut Hill High Service Pumping Station, the L Street Generating Plant, the Barrows Mill in Dedham, and the Chain Forge and Rope-walk at the Charlestown Navy Yard.

Because of the effort involved in carrying out the Conference, the usual

Spring Chapter Meeting was not held in 1984. Back on schedule for the fall, however, SNEC met jointly with the Northern New England Chapter at Old Sturbridge Village in early November. In a joint meeting, support for the New England Chapters Newsletter was reaffirmed, and strategies for strengthening membership and dissemination of the Newsletter were discussed. A decision was made to purge the New England Chapters' mailing list after giving those currently on the list a final opportunity to join one of the Chapters.

In a separate meeting of the SNEC, business included a decision that the Chapter henceforth will not pursue or enter into any consultant contracts because of the potential risks involved. Volunteer projects, however, will continue to be organized as appropriate. The possibility of Chapter sponsorship of an occasional topical IA symposium similar to those that have been sponsored by the Roebeling Chapter was favorably discussed. Although no concrete proposal emerged, the concept of a symposium on IA research and recording techniques was posed as a possibility. A symposium on this or some other topic awaits further development. Discussion of returning the national fall tour to southern New England in 1986 with a maritime IA excursion of coastal Rhode Island and southeastern Connecticut resulted in the probable decision for

SNEC to make a formal proposal at the January meeting of the SIA Board of Directors. New officers of the SNEC for 1985 elected at Sturbridge are President Jeff Howry and Program Coordinator Anne Booth. Treasurer Fred Roe and Secretary Herb Darbee continue in office.

Since SNEC was established in the late 1970s, the Chapter has pursued an active program of biannual meetings and tours, two SIA fall tours, two SIA annual conferences, and several recording projects, in addition to the Newsletter, jointly with the Northern New England Chapter. Although the operating funds in the treasury have been depleted by this year's grant to TICCIIH in support of its international conference held in New England just before the SIA Conference and the expenditure for the joint TICCIIH-SIA reception linking the two meetings, the reserve fund remains intact. To replenish the operating account it is important for all former Chapter members and others interested in our program to support the Chapter by joining the Chapter and bringing your membership up to date so that the future Chapter programs will be as exciting as in the past.

Charles Parrott
Andover, Massachusetts

PRESIDENT'S REPORT, NNEC

After two years as president of the Chapter, it is now my opportunity to reflect on that period and what was accomplished.

The Northern New England Chapter enjoys modest good health, but more recruitment of members is essential if we are to spread the word concerning the importance of industrial archaeology. The Chapter owes a vote of thanks to Dennis Howe, our new president, for his work in designing a brochure that we hope will add to our membership rolls.

In the last issue of the Newsletter, I set forth some thoughts regarding the broadening of our activities. Unfortunately, no responses were forthcoming to me endorsing them or suggesting others. At the national level, Helena Wright recently observed that the active cadre of SIA is smaller than she would like to see. Some-

how new ideas, to which new members could certainly contribute, are needed to move us into additional activities.

At the October joint meeting of the Northern and Southern Chapters in Sturbridge, the idea of periodic recording projects was suggested and seemed to be received positively by those assembled. To schedule such activities we need a cadre of members willing to participate. The Concord gasholder project certainly brought an excellent response. Sites to record which might publicize industrial archaeology as making important contributions to scholarship as well as drawing public attention to such places is, in my view, essential. Projects demanding participation of those attending are often the most rewarding and interesting. Recording projects certainly fulfill that function, and just might be a fine recruiting device.

As noted above, Dennis Howe is our new chief executive officer. I wish him well, and I urge all to forward ideas and suggestions to him. If you want membership brochures, he can send you some. In addition to Dennis, Vic Rolando continues as Secretary-Treasurer. My special thanks to Vic and Grace Rolando for all their efforts on our behalf. The Chapter is most fortunate to have such dedicated officers. I know that they will carry us forward in excellent fashion. All of us need to assist them in furthering the cause of industrial archaeology.

William Taylor
Plymouth State College

Industrial Settlements and Company Towns: New Directions for Research

The study of industrial settlements and company towns offers interesting challenges to researchers. A growing corpus of research from a number of disciplines presents a variety of images of these complex cultural entities. Not only does this developing corpus show the intense interest these scholars possess for industrial settlements and company towns, but also provides different approaches to their study. It is not surprising, then, that the images produced vary considerably. Both the approaches engaged in their study and the resulting interpretations of industrial settlements and company towns offer a number of methodological directions for the researcher to follow. What I propose is a study that is exploratory and explanatory. It is interested in both the direction and the resulting images of that research. I intend to examine the possibility of converging on a powerful set of interdisciplinary procedures to study these multifarious phenomena. If this can be achieved, interested scholars will be able to view these fascinating cultural entities in a new light.²

The recognition that images of the industrial settlement and the company town are variegated presents an interesting problem in terms of our, at times, conflicting characterizations of them, and suggests an equally engrossing solution. "Any landscape is composed not only of what lies before our eyes but what lies within our heads," writes D.W. Meinig.³ The values and preconceptions contained in our descriptive and interpretive approaches affects the language we use, the features to which we assign importance and meaning, and the final image we produce. The interpretations of industrial settlements and company towns are artifacts of our minds, the result of how we organize and process the elements of history and of the physical, tangible aspects of material culture we choose to observe.⁴ Kenneth Hudson used one kind of industrial structure to illustrate this point: "communication, whether through objects or print is an uncertain business. For every person who sees a windmill first and foremost as a piece of machinery for grinding corn, there is another for whom it is

a nostalgic reminder of an age when work was organized on a small scale and when each district provided for its own needs."⁵ Meinig concluded that the "identification of these different bases for the variations in interpretations of what we see is a step toward more effective communication."⁶

Drawing out these "bases" helps us to understand the varied interpretive positions we formulate, i.e., identifying the values we hold by what things we find significant. These, in essence, determine our subjective reality. Given this situation, do all of our interpretive scenarios merely mirror our own values, reducible to our private versions of subjective reality? The answer is a qualifiable "yes." It is clear that we cannot escape our own *Weltanschauung*: in what and where we find meaning are inextricably bound with our perception and, hence, our interpretation.⁷

We do not, however, need to abandon ourselves entirely to solipsism. This is because, as cultural beings, we share a semantic domain. Although people can differ in the values they share, our language enables us to make those values known to others. Whether those values are hidden, say in a "deep structure" concealed in an interpretation (in which case, they can be brought to the surface as done in the critical interpretation of literature or interpretive semantics,⁸) or explicit, as in a well-formulated model, it is possible to identify the ideas we unconsciously or consciously project.

These last points make possible the ability to begin an analysis of interpretations of industrial settlements and company towns, *per se*. If it is possible to formulate a set of interdisciplinary procedures to study these complex cultural phenomena, then the goal of this study will have been achieved. What will also have been effected is a richer, more complete understanding of the entities we observe.⁹ Moreover these procedures are applicable to nearly any phenomenon we study.¹⁰

Ideally, this line of inquiry should examine the total range of

images of the industrial settlement and the company town, though this approach can be illustrated by comparing only two studies. Even an examination of the "surface" (i.e., stated) interpretations of these two models reveals considerably different images, presumably related to the focus of their approaches.

Arnold R. Alanen and Richard M. Candee have recently produced two well-integrated approaches with the advantage (for my purpose) of an explicit interpretive structure.¹⁰ Both Alanen and Candee define a descriptive typology of settlement forms. It is their different approach toward explaining the occurrence of these types that results in the divergent images they present.

Alanen developed this typology from his background in architecture and geography. He reasons that "though the community and social welfare plans developed for several areas of the region did provide housing and service facilities to employees and residents, the ultimate intent of these endeavors was to increase the productivity of the work force and thus the profitability to the enterprise."¹¹ Here Alanen focuses on the intent of design: a function of management's desire to maximize profits by developing a system of worker control and efficiency through developing and maintaining a philanthropic, paternalistic strategy. Although Alanen mentions "...interactions between labor and capital...(and) the role of technology and corporate attitudes in forming the physical and social environments of communities,"¹² the economic and technological processes are only loosely connected to the ability of industrialists to develop these settlement forms.

Candee, who also has a background in architecture and geography, reasons from the ability to design: the greater amount of capital available in one area (related to changes in "machine technology..., labor and management structure as well as...the relationship of manufacturing to real estate development"¹³) allowed a larger scope of development than in another area. Like Alanen, Candee does not integrate a major aspect of the subject within his discussion: the development of paternalistic behavior to consolidate and control the work force, nor does he deal with conflicts between labor and management and the efforts made to mediate their differences.¹⁴ The

evolution of managerial strategies and of the ability of workers to affect changes in those strategies should be considered on a par with the most innovative technological and economic achievements.¹⁵

The examination of the differences in focus between the two authors allows an elucidation of one aspect of their images. Although both studies detail fascinating models for these cultural entities, the difference in focus limits their ability to describe and explain these complex cultural phenomena. In all fairness to the authors, their models were probably intended to be regionally specific, but I am confident that an integration of images, such as Alanen's and Candee's, can extend our research potentials, allowing an explanation of the operation of a great variety of industrial settlement forms.

A principle in scientific research states that the more varied the approach made on a phenomenon, the more likely one can understand its various facets, with the likelihood of moving toward an understanding of the phenomenon in its entirety.¹⁶ The more numerous directions from whence one converges on something first results in multiple images, and later in an image that represents a cohesive whole. This is the value of Meinig's "more effective communication" between observers. Without that shared semantic domain, and without constructing images as to be intelligible by others, the result could only follow the parable of the blind men and the elephant. Instead, by synthesizing our images it is possible to develop a cohesive whole. Admittedly, that holistic construct only reflects our ideas of significance, but as Annie Dillard argues above (see note 8) and in a later work,¹⁷ "what is significance? It is significance for people. No people, no significance. This is all I have to tell you."

Edward L. Bell
Department of Archaeology
Boston University

1. For examples, see references in Arnold R. Alanen, "The Planning of Company Communities in the Lake Superior Mining Region," American Planning Association Journal 45:3 (1979), pp. 256-278; Edward L. Bell, "The O'Neal-Forshee Iron Mining Settlement," Bulletin and

Journal of Archaeology for New York State 86 (1983), pp. 2-30; Edward L. Bell, "A Synthetic Interpretation of an Industrial Complex: A Case Study of the O'Neal-Forshee Iron Mining Settlement," paper presented at the 68th Annual Meeting of the New York State Archaeological Association, April 14, 1984, Middletown, N.Y.; and John S. Garner, "The Model Company Town in New England," (Ph.D. dissertation, Boston University, 1974).

2. My research in this vein continues. I am preparing a lengthier treatment for a graduate course taught by Dr. Mary C. Beaudry, Asst. Professor, Dept. of Archaeology, Boston University.
3. D.W. Meinig, "The Beholding Eye, Ten Versions of the Same Scene," The Interpretation of Ordinary Landscapes, D.W. Meinig, ed. (New York: Oxford, 1979), p. 34.
4. Cf. Brooke Hindle, "How Much Is a Piece of the True Cross Worth?" Material Culture and the Study of American Life, Ian M. G. Quimby, ed. (New York: W.W. Norton, 1978), pp. 5-20.
5. Kenneth Hudson, World Industrial Archaeology, (Cambridge: Cambridge Univ. Press, 1979), p. 187.
6. Meinig (n. 33 above), p. 47.
7. Two authors recently made this point for interpretations of hominid evolution. Matt Cartmill, "'Four Legs Good, Two Legs Bad: Man's Place (if Any) in Nature,'" Natural History 11 (1983), pp. 65-78; and Misia Landau, "Human Evolution as Narrative," American Scientist 72 (1984), pp. 262-268. Many of my thoughts for this paper developed as a result of a course I took at Boston University, taught by Dr. Landau.
8. "...it is a mad exaggeration to say that the words of a text are runic, like so many dots of paint. We can interpret texts because texts use a shared language which refers, however clumsily, to a shared world. ...but to acknowledge that we can never know all is not to decide that we can know nothing. ...Since we agree that some things can be known and understood, our human endeavor is to extend the boundaries of sense and meaning; it is to shift phenomena one by one out

of the nonsense heap and arrange them in ordered piles about us. If you argue that this endeavor yields only a human kind of sense, and that our interpretations yield only human meanings, you will be required to propose a definition of meaning that is not, first and last, meaning for people." Annie Dillard, Living By Fiction, (New York: Harper & Row, 1982), pp. 130, 132-133.

9. See Janet H. Gritzner & Charles F. Gritzner, "Cultural Geography and Historical Archaeology: A Call for Cooperation Along a Rich Interdisciplinary Interface," Forgotten Places and Things: Archaeological Perspectives on American History, Albert E. Ward, ed. (Albuquerque: Center for Anthropological Studies, 1983), pp. 33-36.
10. Arnold R. Alanen (n. 1, above); Arnold R. Alanen, "Documenting the Physical and Social Characteristics of Mining and Resource-Based Communities," Association for Preservation Technology Bulletin 11: 4 (1979), pp. 49-68; Richard M. Candee, "New Towns of the Early New England Textile Industry," Perspectives in Vernacular Architecture, Camille Wells, ed. (Annapolis: Vernacular Architecture Forum, 1982), pp. 31-50.
11. Alanen (n. 1, above), p. 256.
12. Alanen (n. 10, above), p. 49.
13. Candee (n. 10, above), p. 37.
14. Cf. Herbert G. Gutman, Work, Culture, and Society in Industrializing America, (New York: Vintage, 1977), pp. 3-78.
15. Cf. Paul Uselding, "An Early Chapter in the Evolution of American Industrial Management," Business Enterprise and Economic Change, Louis P. Cain and Paul J. Uselding, eds. (Kent: Kent State Univ., 1973), pp. 51-84, noted in James H. Soltow, "Foundations of Regional Industrialization," Regional Economic History: The Mid-Atlantic Area Since 1700, Glen Porter, ed. (Greenville, Del.: Eleutherian Mills-Hagley Foundation, 1976), p. 54.
16. Cf. Carl G. Hempel, Philosophy of Natural Science, Englewood Cliffs: Prentice-Hall, 1966), pp. 33-37.

17. Annie Dillard, Teaching a Stone to Talk, (New York: Harper & Row, 1982), p. 94.

CURRENT RESEARCH IN NEW ENGLAND

CONNECTICUT

The Connecticut Charcoal Company:

Union, Connecticut is the home of The Connecticut Charcoal Company, established in 1939 by the Wells family, one of the founders of Old Sturbridge Village. As the result of the damage to large areas of local forests from the devastating hurricane of 1938, a number of portable sawmills were established to quickly dispatch the fallen trees into lumber, and three charcoal kilns were built the next year to take care of the massive amounts of slash and slabwood which resulted from the logging and sawmill operations. The Rome family purchased the company in 1946, operating it until 1980 when it came under the control of the Rossi Corporation.

Over the years the three kilns expanded to seven, the last built in 1969. The kilns are the traditional-style kiln, of battered wall design - about 30 to 35 feet in diameter and height, each using over 70,000 bricks to construct and a dozen iron bands about the circumference to stabilize and bind together. One of the 1939 kilns remains standing and operating today.

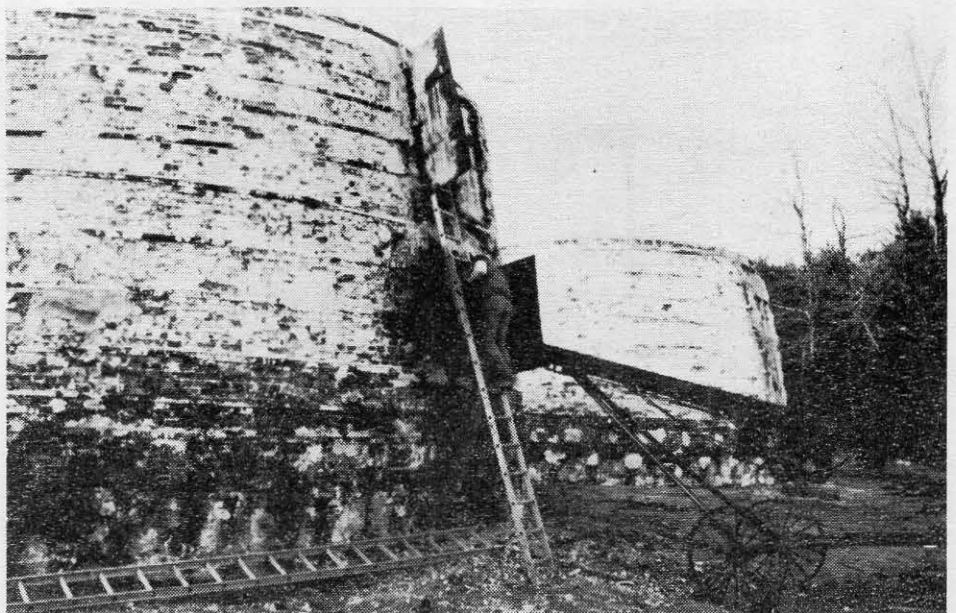
The process of making charcoal at Union is similar to the traditional 19th-century efforts with a few modern twists. Today, at Union, the kiln fire is started by igniting a few gallons of #2 fuel oil in the kiln (vice dropping hot coals into the kiln); and the smoke is drawn out the lower loading door through filters, in response to EPA clean air requirements (as compared to the old method of allowing the hot gasses and smoke out the top circular vent, drawing air into the kiln through rows of brick size vent holes near the base).

Using supplied Company figures (which had to be converted from tons of slabwood, pounds of charcoal per bean bag, etc), the yield of the Union kilns are a surprising 45 to 50 bushels of charcoal per cord of wood loaded into the kiln. This compares favorably with traditional yields of 45 to 50 bu/cord in 19th-century

coaling operations for similar design kiln structures (19th-century figures are from T. Egelston, "The Manufacture of Charcoal in Kilns," Transactions of the American Institute of Mining Engineers, 1879-1880). Customers for the charcoal are various foundries in Connecticut, Massachusetts, New Jersey and New York. They also sell charcoal



Upper loading door of one of the charcoal kilns in the process of charging with slabwood. Five kilns at Union are built against a similar embankment; two others are stand-alone (no embankment; loaded by lift truck and ladder).



An unidentified SNEC-SIA member peering into the black abyss of one of the charcoal kilns; note upper and middle loading doors. Machine to the right is a motor-driven conveyor belt to assist in unloading operations. Both photos courtesy Vic Rolando.

for starting coal stoves in winter and are establishing a retail barbecuing market for the "clean coal," versus briquette coal, usually containing many non-charcoal additives.

The Southern and Northern New England Chapters of the SIA toured The Connecticut Charcoal Company on November 3, 1984. When we arrived at the charcoal kilns late in the afternoon, the day was already starting to chill as only the very tops of some kilns remained in sunlight. One of the kilns was in the burning stage, two were cooling, and the others were in various stages of loading or unloading. Having personally spent many hundreds of hours hiking many dozens of miles in Vermont to locate about a hundred 19th-century charcoal kiln remains, the opportunity to inhale the somewhat pungent fumes emanating from the kilns; to walk on black, warm, sticky pitch; to lay my hands on the hot door and wall of an alive and working kiln were all experiences beyond my writing abilities to describe fully. Not that I haven't seen a standing kiln before; there are two such standing kilns at North Leverett, Massachusetts, which I had visited earlier this year (see Rob Woolmington, "Coking Charcoal Down Rattlesnake Gutter," *Yankee Magazine*, December 1979). These were cold, having gone out of operation some years ago, the result of air pollution problems. But my emotion upon touching that real-life, hot charcoal kiln at Union,

Connecticut can only best be described as being akin to finding a long-sought and lost-lost dear old friend. For a moment, I was somewhere in Vermont, and the year was 1884.

Charcoal kiln-hunting in Vermont will never be the same again!

Vic Rolando
Pittsfield, Massachusetts

Caution, Bridge Repair: The 1984 Infrastructure Improvement Program:

With the June 28, 1983 partial collapse of the Mianus River Bridge, Connecticut's citizens awoke to the realization that the state's transportation maintenance needs could no longer be ignored or deferred. In response, the Connecticut General Assembly during an October 1983 special session at Governor William A. O'Neill's request approved funds for the initiation of design studies for 520 bridges which were rated in fair or poor condition. Governor O'Neill presented an innovative ten-year Transportation Renewal Program to the Connecticut General Assembly in February, 1984, which would ensure finan-

cial support for a safe and dependable statewide transportation system. The plan promotes the creation of a Special Transportation Fund wherein all motor vehicle-related revenues would be dedicated towards the repair and rehabilitation of the state's bridges and roads.

The structural condition and safety of state and local bridges is the most critical component of Connecticut's infrastructure program. Governor O'Neill's Transportation Infrastructure Renewal Program provides for immediate action regarding the state's 520 most deficiently-rated bridges. The infrastructure plan also incorporates the near-future repair and/or rehabilitations of an additional 1,100 state and 1,300 local bridges during the next decade. The projected cost of the bridge-related transportation infrastructure renewal program is \$1.45 billion (including federal assistance).

Of the diverse transportation-related subcomponents of Connecticut's Infrastructure Renewal Program, the proposed upgrading and improvement of state and local bridges was foreseen as having the greatest likelihood for affecting the state's cultural heritage. Consequently, the Connecticut Department of Transportation (CONNDOT) and the Connecticut Historical Commission (SHPO) have undertaken intensive coordination concerning the early identification of historic properties and the assessment of probable impact of all bridge improvements scheduled for "fast track" initiation under this important transportation program.

In November 1983 CONNDOT abstracted several critical variables such as bridge type (stone arch, metal truss, concrete reinforced beam, etc.), year erected, and tentative infrastructure requirements (deck repair, repainting, replacement with improved alignments, etc.), from its computerized bridge evaluation records. CONNDOT and the Connecticut Historical Commission reviewed this preliminary data summary for the 520 state bridges targeted for repair, rehabilitation or replacement during the next three years. All scheduled projects were examined regarding:

1. the historical technological and engineering significance of the bridge itself,
2. the historic district potential of the overall project area,



Tools of the trade: fork, picks, and shovel; a wheelbarrow of whitewash; and a face mask/filter (hanging with the sweater). Photo courtesy of Vic Rolando.

3. the predictable existence of important archaeological remains within maximum construction-related work areas.

Extensive coordination and review has established that 88% of the proposed bridge improvement projects would not affect the state's cultural heritage. CONNDOT then re-examined the remaining projects; where feasible, the original construction or repair recommendations were changed either to ensure in situ bridge preservation or to avoid secondary impacts upon nearby historic structures or archeological resources. Of the total of 520 bridges (33 of which appear to meet the eligibility criteria for the National Register of Historic Places), only 10 projects would adversely affect Connecticut's engineering heritage. In all such cases, CONNDOT's construction recommendation was total replacement.

CONNDOT has since initiated detailed engineering studies for determining whether feasible or prudent alternatives can be selected in lieu of the proposed replacement of these 10 bridges. It is unlikely that suitable alternatives will be forthcoming for all of these projects; in such cases, the goals of providing safe transportation facilities and the preservation of our cultural heritage can be in conflict.

CONNDOT must weigh numerous constraints, some of which might preclude in situ conservation, as it seeks to provide a safe and efficient 20th Century transportation system for the state. Many of Connecticut's historic bridges have narrower widths, poorer approach geometrics, and substandard carrying capacities than that required by modern traffic demands. In addition, many bridges have suffered deterioration from extensive weathering, accident-related damage, and deferred maintenance.

American Association of State Highway and Transportation Officials (AASHTO) and state design standards are a primary concern for CONNDOT in the final implementation of Connecticut's infrastructure program. Although not explicitly mandated, AASHTO bridge-related standards are strictly abided by since they reflect a nationally recognized, professional approach for maximizing highway safety. Specifications regarding the minimum curvatures for approach roadways, minimum clear roadway widths, and minimum

structural capacities are the most frequently problematic concerning the possible rehabilitation of a historic bridge. Long-term maintenance costs and legal questions regarding substandard structures must also be fairly considered.

CONNDOT and the Connecticut Historical Commission anticipate continued interagency analysis of the ten potential bridge replacement projects. The in-depth assessment of these projects will also require coordination with the Federal Highway Administration and the Advisory Council on Historic Preservation in accordance with the National Historic Preservation Act of 1966.

Two bridges in the Town of East Haddam aptly document the diverse concerns of transportation safety and historic preservation. Connecticut Route 82 connects the village of East Haddam (National Register historic district) and its well-known Goodspeed Opera House with several nearby historic and recreational areas. The Route 82 Swing Bridge is also the only Connecticut River bridge crossing in the area. In light of its heavy volume of summer traffic, it is vital that Route 82 and its bridges remain a safe transportation system.

Based upon extensive analysis of the load-carrying capacity of Route 82, CONNDOT has proposed the repair and rehabilitation of the East Haddam Swing Bridge (CONNDOT bridge #01138) and the replacement of the Succor Brook Brick Arch Bridge (bridge #02503). These structures are located at opposite entryways on Route 82 to the East Haddam National Register historic district. While the Historic American Engineering Record has only inventoried the Route 82 Swing Bridge, both structures appear to possess engineering significance vis-a-vis the National Register criteria.

Rehabilitation of the Route 82 Swing Bridge will involve, among other repair activities, the replacement of the floor system, structural repainting, repair of the stone-block piers, and the replacement of the bridge's control house. Although exhaustive, the proposed repairs are primarily maintenance-oriented; both CONNDOT and the Historical Commission expect that the project will not alter the bridge's engineering significance or the historic ambience of the East Haddam National Register historic district.

In contrast, the Succor Brook Brick Arch Bridge is in a seriously deteriorated condition, and replacement is required. The construction of a new structure combined with the in situ conservation of the historic bridge (similar to Meadow Road Bridge in Farmington) is not feasible. Roadway geometrics, a major realignment of Succor Brook, and the potential impacting of a significant 19th-Century industrial archeological site serve to prohibit such an alternative. After extensive consultation, CONNDOT has agreed to the partial reconstruction of the Succor Brook Brick Arch Bridge with no significant changes to the current roadway approaches. Although an adverse effect upon the bridge itself, the proposed new structure will maintain the same elevation and profile as the existing bridge. Further, CONNDOT will ensure the protective fencing off of the archeologically sensitive areas during all aspects of the proposed project and the photographic documentation of the existing bridge prior to its removal.

The Route 82 bridges serve to demonstrate CONNDOT's sincere concern for an early and meaningful consideration of historic preservation issues in the "fast tracking" of the state's Bridge Infrastructure Program. Preservation may not "win" every time; nevertheless, the historic preservation community should no longer maintain its outdated image of CONNDOT as the foremost antagonist of the state's heritage.

Maribeth McCarthy Demma
Office of Environmental Planning
CONNDOT

David A. Poirier
Environmental Review Coordinator
Connecticut Historical Commission

Connecticut Historical Commission:

John W. Shannahan, State Historic Preservation Officer for Connecticut, has announced that 1985 Historic Preservation Grant-in-aid awards totaling \$202,000 were awarded to projects in 21 communities. These funds are made available through the Historic Preservation Fund of the National Park Service, U.S. Department of the Interior, and administered in Connecticut by the Connecticut Historical Commission-State Historic Preservation Office.

Grants are made primarily for surveys to identify, locate, and describe Connecticut's historic, architectural, and archeological resources. Since 1974, over 300 grants totaling \$5 million have been awarded in 160 Connecticut communities. Thirteen of these projects will prepare detailed architectural or archeological surveys in the towns and cities of Bethel, Branford, Cheshire, Danbury, Farmington, Greenwich, Ledyard, Litchfield, Norwich, Southington, Stratford, Thompson and Waterbury. It is estimated that the survey will produce detailed information on over 3,500 historic properties. The information is added to the Statewide Historic Resource Inventory, the largest data base in the state concerning Connecticut's architecturally and historically significant sites. The Statewide Historic Resource Inventory, kept by the

Connecticut Historical Commission, currently holds information on 60,000 properties. In addition to surveys, eight grantees will engage in the preparation of nominations to the National Register of Historic Places. The National Register is the official listing of those properties which are important in American history. Currently over 16,000 sites in Connecticut are listed in the National Register, which is administered by the U.S. Department of the Interior. In addition, funds were awarded the Connecticut Trust for Historic Preservation for educational activities. The Connecticut Historical Commission provides up to 70% of project funding, and the local sponsor provides the balance. Local sponsors include towns and cities, historic preservation organizations and historical societies.

Historic Preservation Office, and it is anticipated that in 1985 a microfiche copy will also be deposited at the Connecticut State Library. The State Historic Preservation Office has prepared for publication an 80-page manual entitled A User's Guide to the Connecticut Historic Preservation Collection. The document will provide a complete index of all Historic Preservation Fund-supported surveys, including those at scan, reconnaissance, and intensive levels, organized by geographic area or theme, as well as surveys done by outside agents and all HPF and contract archeology reports. The guide also provides a description of the criteria for inclusion in the inventory and the methods of locating information on specific properties. This publication is expected to be available early in 1985.

The following grants were made:

Mary Donohue
Survey Director

Connecticut Historical Commission

1985 SURVEY AND PLANNING GRANT

SURVEY PROJECTS

Bethel	Bethel Historical Society	\$ 4,000
Branford	Branford Architectural Preservation Trust	17,000
Cheshire	Town of Cheshire	4,500
Danbury	Danbury Preservation Trust	8,070
Farmington	Clatter Valley Society	18,000
Greenwich	Greenwich Neighborhood Building Survey	12,000
Ledyard	Public Archaeology Survey Team, Storrs, CT	18,000
Litchfield	Greater Litchfield Preservation Trust	4,000
Norwich	Norwich Heritage Trust	19,000
Southington	Town of Southington	11,000
Stratford	Town of Stratford	10,500
Thompson	Town of Thompson	21,000
Waterbury	Neighborhood Housing Services	10,750

NATIONAL REGISTER OF HISTORIC PLACES

Hartford	Hartford Architecture Conservancy	4,000
Lyme	Public Archaeology Survey Team, Storrs, CT	2,500
Middletown	Greater Middletown Preservation Trust	2,000
New Haven	New Haven Preservation Trust	7,280
New London	New London Landmarks, URST	2,500
Stamford	City of Stamford	2,500
West Hartford	Noah Webster Foundation/Historical Society	2,700
Westport	Town of Westport	1,700

EDUCATIONAL ACTIVITIES

Statewide	CT Trust for Historic Preservation	19,000
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Emergency Jobs Act Updates: Industrial Sites:

Three important industrial sites in Connecticut benefited from the funds available from the Federal Emergency Jobs Act of 1983: the Roxbury Iron Mine; the Heany Building at the Eli Whitney Armory Site; and the Gurdleville Grist Mill. Impressed by the labor-intensive nature of rehabilitation work, Congress made a portion of the funds available to the National Park Service for historic preservation activities. Funds were awarded here by the Connecticut Historical Commission (SHPO)

Stabilization of the furnace at the Mine Hill, Roxbury, Connecticut included installing a roof and repointing the stonework and the brick-lined arches. Mine Hill, considered the best-preserved of Connecticut's mid-nineteenth century iron works, is owned by the Roxbury Land Trust, Inc., which received \$40,195 in federal funds. The grant-assisted work also included preliminary archeological investigation conducted by Raber and Gordon. Future plans by the land trust include stabilization of the roasting ovens and further archeological work. The Eli Whitney Museum, Hamden, Connecticut, recipient of

Archives Program:

The Connecticut Historical Commission (SHPO), in an innovative partnership with the Special Collections Department of the Homer D. Babbidge Library, University of Connecticut at Storrs, is transferring the bulk of its over 60,000 cultural resource files and 250 archeological reports to the university's modern archival facility. This will include the over 440 HAER Inventory data-entries prepared by Matt Roth as well as detailed sur-

vey reports such as that prepared on the Phenixville mill site and the machinery of the Simsbury Grist Mill. The Special Collections Department facility utilizes humidity control, fire-damage protection, and professional curation. Public access to the survey materials, now the largest existing data base on Connecticut's cultural resources, has been dramatically improved due to the expansion of work space available to researchers. In addition, a microfiche copy of the inventory is located at the State

\$26,000 in federal funds, has converted the Heany Building into the state's newest industrial museum. Grant funds were used to restore the wooden industrial window sash and for rehabilitation of the building's monitor. Repairs to the Gurleyville Grist Mill in Mansfield included wiring and improved visitor access.

Mary Donohue
Survey Director
Connecticut Historical Commission

MAINE

Up-Down Sawmill Remains Discovered in Maine

The Maine State Museum has discovered and acquired the partially disassembled remains of an 18th century up-down sawmill. Capping a search which has been underway for nearly a decade, these remains were located less than five miles from the museum in downtown Augusta!

Originally built prior to 1789, the Augusta mill, located on Bond Brook, has not functioned as a sawmill in recent memory, and there was little evidence known of the material still "stashed" within the confines of the old building. When recently visited by Museum Director Paul E. Rivard, the mill structure showed unmistakable evidence of its early use as an up-down sawmill. In fact, the fender posts and the rocker arm above the saw were still in their original positions in the mill building. The most important find, however, was a loose pile of disassembled parts that were located beneath the cribbing in one corner of the mill which rested on a relatively inaccessible pier standing in the stream bed itself. This pile yielded the entire framework for the saw frame, and the two end blocks for the carriage together with the iron dogs still in place. Close inspection of the remaining structure has provided information for the reconstruction of missing parts, including the carriage itself and the advancing mechanism of the feed.

It is believed that the parts recovered from the pier under the mill building were placed there in the 19th century. Despite some deterioration, particularly to one of the carriage end blocks, the parts remain in remarkable good condition. They will be carefully conserved by Museum staff. Present plans call for the major revision of one of the Museum's present exhibition spaces to permit the reconstruction of the up-down sawmill. This will probably take place in 1986.

Although the Maine State Museum has acquired much important machinery in the past several years, the up-down sawmill is considered among the most important finds to date.

Paul E. Rivard
Maine State Museum

MASSACHUSETTS

HAER Boott Cotton Mills Recording Project: Part II:

This past summer, phase two of a planned three-summer HAER project was conducted in Lowell, Massachusetts to record the historic Boott Cotton Mills complex. The project was sponsored by the Lowell National Historical Park, the City of Lowell, and by the Proprietors of Locks and Canals (owners of Boott Mills).

In addition to an extensive resource guide written by Betsy Bahr (SIA) on the mill's history, Mills 3, 4, 4 North, 5 West, and 9 North were measured and drawn by a team of five architectural students. Rossana Santos (University of Virginia), architectural field supervisor, worked together with David A. Bridge and Karen Cormier (both of Temple University), Toni Lee Ferrell (Virginia Polytechnic Institute), and Rose Scott Long (Auburn University) to produce 25 sheets of drawings covering plans, elevations and sections of these mills. These drawings will be added to the 30 sheets made last year of Mills, 1, 2, 8 and 9. The HAER office project manager this year was Richard K. Anderson, Jr. (SIA).

The resource guide pulls together numerous records, collections, photos, and published sources which throw light on Boott Mills' power and construction technologies as well as its labor and business history. The normal site-specific HAER report format was modified considerably because of the abundance of published sources available on these various facets of the Lowell and New England textile industry and the lack of any extensive Boott Mill business records predating 1900. Suggested topics for further research were also discussed for such subjects as late 19th and early 20th century factory design and mill engineering, fire protection engineering, industrial power technology, and factory work organization.

The final phase of the project will include the recording of Mills 5 East, 7, and the old powerhouse; producing a series of maps showing the physical growth of the complex; and completing the large format photography schedule. Measured drawings of Mill 6 and the Counting House have been made by the Denver Service Center of the National Park Service, and plans are afoot to copy some of these onto the HAER format for inclusion with HAER drawing set. The entire project will be transmitted to the HAER Collection in the Library of Congress in 1987 where the materials will be made available to the public.

Richard K. Anderson, Jr.
Staff Architect
Historic American Buildings Survey/
Historic American Engineering Record

The Oliver Wight House:

A brief archeological investigation at the Oliver Wight House in Sturbridge, Massachusetts was conducted by a team led by Myron Stachiw and John Worrell. Owned by Old Sturbridge Village and listed on the National Register, the structure is being restored, and an ell is being added in the vicinity of one that was dismantled early in this century. Although much of the site had been disturbed, the locations of the kitchen ell and other functional structures were ascertained, and domestic artifacts were retrieved which will assist in understanding more about the Wight family who contributed significantly to the early settlement and industrial development of Sturbridge.

David M. Simmons
Old Sturbridge Village

Drew's Tavern and Sawmill Site (1693-ca. 1850):

The Center for Archaeological Studies at Boston University recently completed an archeological reconnaissance of the Boston Edison "Impact 2000 House" parcel in Brookline, Massachusetts. This site was the location of a late 17th-century sawmill and house/tavern allegedly owned and operated by Erosamon Drew, a prominent citizen of Brookline. Both the sawmill and the house were constructed in 1693. Drew, or possibly a later tenant of the property, apparently capitalized upon the success of the sawmill by turning the house into a tavern, where home-made huckleberry wine was sold. The house accordingly became known as the "Huckleberry Tavern." The mill stood until ca. 1850, and the house/tavern was dismantled in 1873.

Drs. Mary C. Beaudry and Ricardo J. Elia were co-principal investigators for the project, Donald G. Jones was Project Archaeologist, and Nancy Seasholes served as Project Historian. Preliminary documentary research and subsurface testing, funded by Boston Edison, have produced interesting results.

The house foundation has survived virtually intact and has been further protected by approximately 4-5 feet of fill deposited for landscaping purposes in the backyard of the solar house. Although the mill foundation remains were largely destroyed by the 1908 rechanneling of the mill's power source, Sawmill Brook, a large number of cast iron artifacts were recovered and have been tentatively identified as hardware from the sawmill. These objects, including a drive shaft, hooks, and straps, are very similar to the hardware used in the reconstructed sawmill at Old Sturbridge Village. Further research and analysis are now in progress to determine the proper identification of these objects and their function. The preliminary report can be obtained from the Center for Archaeological Studies, Boston University, 232 Bay State Road, Boston, Massachusetts 02215.

Donald G. Jones
Department of Archeology
Boston University

The John Hinds Pottery Site:

The 18th-century pottery production site of a previously undocumented rural craftsman named John Hinds has been discovered in Holland, Massachusetts. John Worrell and Old Sturbridge Village are coordinating the investigation of the site and its proprietor. The team of local residents, museum staff, and trained archeology volunteers projects a long-term investigation of the documents and of the site in order to acquire data to add to that previously gained from other rural ceramic production sites by the Village. Although local and ceramics histories do not mention Hinds, considerable documentary research by Doug Lyon and Mike Forand is piecing together a career of nearly forty years in the second half of the 18th century for him. Unlike other farmer-potters that OSV has researched, Hinds is identified as a potter in property records. The area of his shop reconverted to forest very early in the 19th century, allowing excellent preservation of the entire production area. Initial excavations have revealed the location of the kiln and placement of loading area and firebox as well as suggesting probable locations for other functional features.

David M. Simmons
Old Sturbridge Village

The Emerson Bixby Site:

Old Sturbridge Village has recently embarked upon a program of research into the everyday economic lives of rural, 19th-century, central New Englanders. A significant component of this research is the long-term investigation of the domestic, work and community life of Emerson Bixby, an early 19th-century farmer and blacksmith who lived in a busy agricultural/crafts neighborhood in the far north corner of Barre, Massachusetts. The small, vernacular cape which he purchased in 1826, together with many of the house's furnishings, the undisturbed house and shop lots, and Emerson Bixby's account book (1824-55) are among the rich resources available for study. During the summer of 1984, David Simmons and John Worrell directed the sixth O.S.V. Field School in Historical Archaeology, initiating the first of three seasons of excavations at the Bixby

site. The focus of the archeological work this past season was Bixby's domestic sphere. Following a program of intensive surface surveying and selective test probing of the Bixby house lot, in which some 15 structural/functional areas were delineated, major excavations were undertaken in the yard spaces adjacent to three facades of the house. There we found evidence for an impermanent feature related to or pre-dating the construction of the house, an initial burn-off of vegetation preparatory to house building, the construction (in phases) itself, landscaping, and the occupational uses of the yard spaces. A most intriguing feature, discovered in the front yard under more than four feet of trench fill, was an early, dressed, stone-covered drain, built to alleviate severe cellar flooding. Almost 5 meters of the drain were excavated, its extent yet unknown. A large deposit of early 19th century British ceramics, found under an early addition to the house, together with the material culture recovered from the yard spaces, the features, and stratigraphy, will help us to reconstruct the use history of the site. Archeological research is complemented by concurrent documentary, material culture, architectural history, and oral history studies undertaken by O.S.V. Research Historian Myron Stachiw, and other members of the Research Department. Taken together, this research will provide a better understanding of the hitherto poorly documented everyday lives of early 19th-century, rural New England blacksmiths and their world. Work on this project will continue throughout the year with another archeological field school in the summer of 1985.

David M. Simmons
Old Sturbridge Village

Boston's Metropolitan Sewerage System:

Dr. Suzanne Spencer-Wood and graduate students at the University of Massachusetts/Boston, have been researching the industrial archeology of sewer systems in the Boston metropolitan area. The three sewerage systems originally constructed between 1876 and 1904 are still in use. The City of Boston's first municipal sewerage system was constructed between 1876 and 1884, followed by the North Metropolitan Sewerage System between 1889 and 1896, and the Southern Metropolitan from 1895 to 1904. The development of these three metropolitan sewer-

rage systems, including the survival and replacement of original construction, pumphouses and machinery, had never been compiled. The sequence of construction of these historic industrial systems was reconstructed from numerous sources, including Eliot Clarke's 1885 book, Main Drainage Works of the City of Boston, and the Annual Reports, 1889-1983, of the various Sewerage Commissions up through the existing MDC Sewerage Division. Field research recorded the condition of surviving pumphouses and their machinery.

This research was undertaken to determine the extent to which the three original metropolitan sewerage systems survive and are being preserved. The research found most of the sewerage lines still in use in their original form, with replacement of corroded metal parts where necessary. Some of the original pumping stations survive, and even a few of their early steam pumping engines. Although the MDC Sewerage Division plans to preserve and reuse most of the early pumping stations, the few remaining steam pumping engines will soon be removed.

In Boston's Main Drainage, the future is uncertain for the 1883 Calf Pasture Pumping Station. This earliest pumping station is still in use during rains and other overflow conditions, with 1930's electric engines which replaced the original Worthington and Leavitt steam pumping engines. The Leavitt vertical engine's 36 foot diameter fly wheel was one of the largest in the world. Boston's Main Drainage Works belong to the Boston Water and Sewer Commission, although they were linked to the North Metropolitan Sewerage System by deep harbor tunnels in 1968.

In the North Metropolitan Sewerage System the original 1895 East Boston Pumping Station burned down in 1908 and was replaced with a new building by 1912. Although it is presently still in use at the East Boston Pumping Station, the last operating 1899 triple expansion Reynolds-Corliss type horizontal steam pumping engine, along with an 1895 inoperative one, is slated for removal in the next two years. Of the other original pumping stations in this system, the 1895 Alewife Brook Station was replaced with a new structure in 1953, and the 1895 Charlestown Station was substantially altered in 1964, so that only the engine room remains from the

original structure. The 1895 Deer Island Pumping Station of the North Metropolitan Sewerage System has been abandoned since construction of the new treatment plant in 1968, and its 1911 triple expansion Reynolds-Corliss type steam pumping engine has been vandalized. The MDC Sewerage Division is planning to preserve and reuse the East Boston, Deer Island and 1922 Reading Pumping Stations, with removal of their machinery.

The South Metropolitan Sewerage System's original 1904 Nut Island Screen House was replaced with a new treatment plant in 1952. Its 1901 Quincy Pumping Station has been preserved, containing 1950's Enterprise and Fairbanks Morse diesel engines that replaced the earlier steam engines. Future plans for the 1933 Braintree-Weymouth pumping station are under consideration as part of the study of construction alternatives for a new Neponset Valley Relief Sewer and pumping station. This was the first diesel pumping station constructed in the sewerage system.

With the support of the Massachusetts Historical Commission, the MDC Sewerage Division is to be commended for recognizing the historic value of its 19th century pumping stations, which it plans to preserve and reuse, although new facilities must be built. It is hoped that the East Boston Pumping Station's last operational 1899 triple expansion Reynolds-Corliss type horizontal steam engine, as well as the inoperative 1895 engine, and the 1950 Ames uniflow compound condensing engine, will be removed to an industrial museum. Perhaps this research will lead to increased awareness of the historic industrial value of Boston's metropolitan sewerage systems.

Suzanne Spencer-Wood
University of Massachusetts, Boston

NEW HAMPSHIRE

The Sewall's Falls Dam:

In 1969 the Concord Electric Company sold to the State of New Hampshire the site of a massive dam and power house located at Sewall's Falls on the Merrimack River in Concord. This dam had been built in 1893 and was generally recognized as the world's longest timber crib dam, some 633 feet long, of which 497 feet was a timber cribbed spillway packed with stones. The dam was sold for the sum of \$1.00 because it had become cheaper to buy power than to produce it here, and Concord Electric also gave the State \$10,000 with which to help cover future repair costs. Regrettably, the money was then deposited in the State's General Fund, no maintenance was performed, and the dam was allowed to deteriorate to the point that many individual timbers washed out, weakening the structure.

Finally, on the night of April 7, 1984, a 100-foot-long section of the old dam gave way after several days of heavy rain. The water level has been dropping ever since, providing a steadily improving view of a truly magnificent engineering accomplishment. Even in ruined condition, the size of the dam is awesome, and the neglect that resulted in its demise can only be condemned.

Interestingly enough, plans to build a dam here go as far back as 1833, at which time the "Sewall's Falls Locks and Canal Corporation" was formed in order to build a long power and transportation canal. Construction never occurred, but later, in 1881, "The Concord Land & Water Power Company" was organized with the objective of building a dam, canal, and an entire community here. They planned numerous streets, a park, etc., and the entire community was to have gotten its power from the dam. This effort failed, but the Company reorganized in 1892, a timber crib dam and a timber-lined canal around the Falls were begun, and in October of 1892 the foundations for a power house were started as well. In August of 1893 the first water finally flowed over



The Sewall's Falls Dam, still in operation in June of 1983 (facing northeast).
Photo courtesy of David Starbuck.

the spillway; in February of 1894 the transmission line from the Falls to the city of Concord was completed; and on February 28 the public was invited to visit the Falls and inspect the operation of the works.

It is significant that the Concord Land & Water Power Co. did not merely construct the world's largest timber crib dam. As noted in a manuscript written in 1935 by George B. Lauder (president of the Concord Electric Co. from 1901 to 1909), "At two o'clock, on Friday afternoon, September 29, 1893, the Concord Land & Water Power company began to furnish current from a three-phase distribution line, to a five-horse-power, three-phase induction motor set up in Nathan P. Steven's machine shop in the Dow Building on Bridge St. ... and continued to furnish current for the said purpose until February, 1894, when service from its plant at Sewall's Falls was permanently established. ... to the Concord Land & Water Power company belongs the distinction of having been the first in the United States to operate a multi-phase, induction motor, for a commercial purpose, with current supplied by a multi-phase generator installed in a central station, and transmitted over a multi-phase distribution line."

Only a few years later, in 1897, Concord Land & Water Power Co. went into receivership, and then in 1901 the property was acquired by the newly-formed Concord Electric Company. During subsequent years the dam and canal received annual maintenance, typically in July and August when the water level of the Merrimack was at its lowest. The canal supplied water to turbines in the powerhouses at its downstream end. Apparently the most extensive repairs were made to the dam in 1933 and 1935, although much sand-bagging of the wing walls of the dam was required during flooding in 1936 and a hurricane in 1938. (Water was 16.8 feet over the top of the dam in 1936 and 13.9 feet in 1938, but it held.) When Concord Electric suspended power generation at the Sewall's Falls hydro plant on Sept. 30, 1966, the dam was still in excellent condition, but the State's policy of neglect between 1966 and 1984 ensured its eventual destruction.

The wooden spillway is now split into 2 sections -- the western end being much longer -- and the Merrimack freely flows between the two. The crest, first apron and second apron of the spillway are all clearly visible, although in poor condition, while the dam's east and west abutments are of

granite and are in excellent condition. Through the years much silt had built up north of the dam, and this has now been swept downriver, along with large sections of timber cribbing from the dam. Substantial portions remain, however, and thousands of hand-packed stones are still visible resting inside the cribbing. While the surviving sections of the dam are fairly stable at present, heavy spring flooding could easily dislodge much of the remaining cribbing.

State officials have announced no plans to rebuild the dam or to stabilize it in any way. Instead, hydroelectric developers have been waiting for approval from the Federal Energy Regulatory Commission to build a new dam ca. 1500 feet downstream and to erect a new hydroelectric plant. Whether or not necessary permissions are obtained, it appears certain that very little of the Sewall's Falls dam will be left in a few year's time. It has been a great dam, and it deserves better than this.

David R. Starbuck
Rensselaer Polytechnic Institute

Portsmouth:

On October 4, 1984 the "finest (industrial) administration building in New England" was torn down by the Gold Bond Division of National Gypsum Company, which has owned the site since 1936, in order to permit a new \$4.5 million plant expansion.

Portsmouth Advocates opposed the demolition announced only at the 11th hour, seeking nearby land to move the handsome 1903 colonial revival building onto it. It failed, and the building came down.

The site was developed by the White Mountain Paper Company in 1903, which planned and began to build the world's largest pulp and paper mill there before going bankrupt. Only the office and one of their industrial buildings were completed by then, and a few years later a succession of new paper companies took over and tried to complete the plant. However, by 1915 the Colonial Paper Company, which may have converted the second story of the office to apartments, also went bankrupt.

During World War I the plant was "adaptively reused" for a shipyard for the construction of 8800-ton steel "Liberty" ships for the U.S. Emergency Fleet Corporation. (The Atlantic Corporation built 10 such ships between 1918 and 1920, as well as the federal-financed industrial housing community, Atlantic Heights, which is the main focus of a book which will be published by Richard Candee in April of 1985. The book covers the paper companies as well as the Atlantic shipyard's industrial histories, the latter primarily from government records at the National Archives. The housing project was among the first uses of U.S. government money for housing and was cited as a model project for industrial housing after the war.)

The office was the last unaltered structure of the paper companies and shipyard retaining its historical integrity, and had become a local landmark along the new Market Street extension. The city council is considering a demolition delay order to prevent other similar surprises in the future.

Richard Candee
Kittery, Maine

There was never any doubt within Historic Harrisville that the mill would be repaired, and work began in earnest about mid-August. The MacMillin Company, Inc., of Keene, N.H. was hired as general contractor, and Stephenson Timber Frames of Peterborough, N.H. took on the job of replacing the king post truss system that was damaged. As of November 1st, the mill had been completely rebuilt and is only lacking the replacement slate and the removal of the staging. The work has been accomplished with the insurance money available and to a degree of quality that has pleased everyone. Richard Monahan, architect and chairman of Historic Harrisville, points out that Historic Harrisville was lucky on four counts; first, they knew a lot about this mill as it had been completely renovated in 1976; secondly, the skill and care of the construction crews was unbelievable; thirdly, there was just enough insurance money to cover the damage; and lastly, it never rained after July 15th.

This was a happy ending to what could have been a major disaster!

John Colony III
Historic Harrisville, Inc.

VERMONT

Iron and Charcoal Sites:

In the search for ironworks and charcoal-making sites in Vermont, some clues have come from the most unexpected sources. For example, discovery of one particular charcoal kiln site came about as the result of finding what appeared to be an ordinary piece of rusted iron rod, along a trail in Peru while hiking about three miles from one known charcoal kiln site to another. To the ordinary eye, the iron rod might have looked like it had broken off a passing vehicle. To the eye of a kiln searcher, however, the rod was a piece of kiln door hardware. A one-minute inspection of the heavy underbrush alongside that side of the trail resulted in the location of a previously-unknown single-kiln site, not even known to have existed by people who had hunted and fished the area for many years. The most curious discovery, however, was that made early in 1984 of a blast furnace ruin in West Haven.

Harrisville:

At 1:00 A.M. on the morning of June 13, 1984 a general alarm fire was sounded in Harrisville, New Hampshire, and most of the village awoke to the horrifying sight of the Milan Harris Mill (ca. 1832 and the centerpiece of the Landmark District) ablaze. After several hours of difficult fire fighting, the Harrisville volunteers, assisted by companies from Dublin, Marlborough, Nelson and Keene, brought the fire under control. The brick mill had suffered major structural damage to the roof and attic floor, significant charring and smoke damage throughout. While local press reports referred to the building as "gutted," the owners of the building, Historic Harrisville, Inc., estimated the extent of damage to be about 25%. Everyone agreed that the volunteer firemen had done a remarkable job of saving the mill from total destruction.



Repairs to the roof of the Milan Harris Mill in Harrisville, New Hampshire. Photo courtesy of The Keene Sentinel.

It has been a long-known fact that someone named Colburn (or Coburn) erected and operated a stone-built charcoal blast furnace at Moriah, NY, just north of Crown Point, from 1848 to 1858. Research in Vermont that found one John P. Colburn had married the daughter of Jacob Davey of Fair Haven prompted speculation that this, or a related Colburn, may have been connected with the Moriah furnace. Jacob operated the forge complex at Fair Haven from 1807 to 1843.

Research into ironworks-related Vermont families has revealed many instances of Vermonters starting up ironworks on the New York State side of Lake Champlain. Most obvious were Allen Penfield and John Charles Hammond, both of Pittsford, VT, who started a small forge at what is today Ironville, NY, finally ending up with the formation of the vast Crown Point Iron Company in the 1870s. Other Vermonters, the Bogues, Pages (related to a Vermont governor), Harwoods, etc., followed the migration to become part of the Crown Point Iron Co. Did Colburn of the Moriah furnace also follow suite, therefore, building a furnace at Moriah after having had initial ironworks exposure at Fair Haven through Jacob Davey, his father-in-law?

Through communication with Richard S. Allen, fellow researcher of NY ironworks, it was learned that the Moriah furnace was built by an E. Colburn, possibly Edward or Edmund Colburn. Genealogical research of the Colburn/Coburn family revealed that the Fair Haven branch had come from New Brunswick, Canada. And surprisingly, in the course of researching the family tree, it was found that John P. Colburn, who married Davey's daughter, had indeed built a blast furnace - not at Moriah, however, but at West Haven, a few miles northwest of Fair Haven. It was briefly described as having been built in 1825, "just below Carver's Falls," placing it somewhere on the Poultney River, which forms about ten miles from the boundary between New York and Vermont, and empties into East Bay in Lake Champlain. Regardless of which side of the river the furnace was built on, it did not show up on anyone's list of blast furnaces or forges, and if remains could be found, a previously-unknown site will have come into existence.

In the spring of 1984, a section of the Poultney River at Carver's

Falls was inspected with the object of gaining access to the base of the falls, but the nearly-vertical, high embankment here made that impossible. A downstream section of the river was also inspected, but the depth, speed, and muddiness of the spring run-off made both the inspection of the river bottom for slag or ironworks artifacts, and the possibility of wading upstream to the falls impossible. Returning a month later and making an inquiry to a local farmer resulted in locating a trail through his pasture and down to the river at a point about a half-mile downstream of the falls. After an hour's inspection of the area, the collapsed remains of a relatively large stone-built blast furnace were found. The remains were sufficient to estimate the base dimensions. Much of the bosh wall was intact, but the bosh was not lined with brick or any refractory-appearing stone, indicating that the furnace may never have been fired. Ground inspection and testing in the vicinity failed to locate any slag or charcoal, no cellar holes and no evidence of a charging platform foundation atop the adjacent embankment. Further conversation with the local landowner confirmed suspicions. The furnace had been built on the inside curve of the river that flooded almost every spring. John Colburn had apparently discovered his mistake the spring following construction of the furnace and abandoned the site. (The landowner, incidentally, thought the furnace ruin was connected with charcoal-making, since it was loaded up with wood-which turned out to be drift wood from the annual floods.)

No replacement furnace has been located in the records or in the field, unless, of course, the Moriah furnace was the replacement furnace; however, that furnace was not built for another 13 years.

To date, continuing research has failed to locate any Edward or Edmund Colburn/Coburn connection with the Vermont Colburns or with the West Haven blast furnace site. The search continues, however, with the potential for connection still too tantalizing to just forget about it.

Vic Rolando
Pittsfield, Massachusetts

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Macaulay, David. 1983. Mill. Boston: Houghton Mifflin Co.

Reynolds, Terry S. 1984. Medieval Roots of the Industrial Revolution. Scientific American, Vol. 251 (1):122-130.

1984 Boston Conference Tour Brochures are available. The set of four, with details of nearly 200 sites, maps and photos, covers the routes of the Friday and Sunday tours. Beautifully produced. \$10.00 postpaid. We also have a few of the 1984 Conference posters. Complete your collection! \$5.00 postpaid. "A Guide to the Industrial Archeology of Boston Proper," by Peter Scott. This book, also a part of the conference package, covers most of the unique and historic industrial structures of central Boston, from subways to candy factories. Illustrated, 5 1/2" X 8 1/2", 66 pp., indexed. Price \$7.95 + \$1.00 postage and packing. Make out checks to "Southern New England Chapter SIA" and send to Fred Roe, 837 Winter St., Holliston, Ma. 01746.

Also, members who have not received a copy of F. P. Elwert's book catalog #2 on Historic Preservation and Industrial Archeology (issued in Summer 1984) or catalog #3 on Architecture and Industrial Archeology are invited to write to: Fred Elwert, Box 254, Rutland, VT 05701.

MEETINGS AND ANNOUNCEMENTS

SIA 14th Annual Conference: The Roebling Chapter will host our 1985 Annual Meeting in Newark, New Jersey on May 8-13. An all-day paper session is planned for Saturday, May 11. For information on the paper/symposium sessions write to Ed Rutsch, Box 111, RD 3, Newton, NJ 07860 (201 383-6355).

Recording Workshop for SIA New England Chapters: The Southern and Northern New England Chapters of the Society for Industrial Archeology are planning a weekend-long workshop for SIA members and interested individuals on the techniques of recording historic industrial sites. The workshop will begin on a Friday evening and conclude on the following Sunday afternoon. Enrollment will be limited to 25 individuals. Each participant will have an opportunity to learn and apply the various techniques of recording industrial sites. It will be the objective of the workshop to produce the record documentation (drawings, photographs and brief narrative history) of the site chosen for the workshop. The workshop will be scheduled for sometime during the summer or fall of 1985.

Chapter members are encouraged to submit their suggestions for a workshop location to Jeff Howry, SNEC President. Factors considered in selecting a workshop site will be its proximity to inexpensive accommodations (e.g., campground, host housing) as well as a place for the group to meet in the evenings. A staff of five instructors will be needed. Persons wishing to volunteer their time should contact Jeff Howry, 26 Wachusett Drive, Lexington, MA 02173 or call (617) 861-8524 (evenings) or (617) 542-5901 (days).

The Maine State Museum: The Museum is presently engaged in the construction of a large-scale exhibition which utilizes a strong collection of technology and mill-scale artifacts. Termed "Made in Maine," this project includes the recreation of woolen mill environments and the complete installation of a turbine-powered woodworking mill from Warren, Maine. Among the important items of technology that will be exhibited are a wool spinning jack, ca. 1845, seven woolen looms, the cupola casting furnace from the Portland Stove foundry, the complete contents of a 19th century woodworking mill, and a number of steam and gasoline engines built in Maine. Scheduled to open in the fall of 1985, the exhibit will display over 1,000 products made in Maine in a multi-level exhibit linked by rampways spiralling around 14 recreated work environments.

The Computer Museum: The Computer Museum in Boston officially opened to the public on November 14, 1984, and a formal opening ceremony and press preview were held on November 13. Located on 300 Congress Street in Boston (617 426-2800), the Museum houses collections going back to the seventeenth century.

Rhode Island's Lighthouses: An exhibit entitled "Rhode Island's Lighthouses: Past, Present, Future" is on tour from May 1984 to September 1986. The opening site was the Newport Tourism and Convention Center. For the exact schedule, please phone (410) 277-6800.

Lowell Conference on Industrial History: The sixth annual Lowell Conference on Industrial History is being planned around the theme "The Popular Perception of Industrial History." The conference will be held in Lowell, Massachusetts on November 1-3, 1985.

The conference will focus on the ways in which social and economic history, urban history, and the history of technology have been presented by various media (including museums and historic sites, literature, film, television, history textbooks, and more), and how the public has in turn come to understand its industrial past.

Proposals are being accepted for individual papers and full sessions; full sessions are preferable. Sessions should be limited to five par-

ticipants. Proposals should include a one-to-two page synopsis of each paper and the session itself (if applicable), as well as background information on individual participants. Accepted proposals will be published in the annual proceedings of the Lowell Conference on Industrial History. The deadline for proposals is March 31, 1985.

The Lowell Conference on Industrial History is able to provide some limited subsidies for travel and lodging accommodations for individuals without institutional affiliations or whose institutions cannot fund travel costs. Applications for such financial assistance should be included with individual proposals.

For further information contact Robert Weible, Lowell National Historic Park, 169 Merrimack Street, Lowell, MA 01852; phone (617) 459-1027. The Lowell Conference on Industrial History is a yearly event sponsored by Lowell National Historic Park, the University of Lowell, the Lowell Historic Preservation Commission, the Museum of American Textile History, and Boston University.

Marking Time in New Hampshire from 1750 to 1900: To explore the idea of keeping time, the history of using clocks in the Granite State and the art of New Hampshire clockmaking, a new exhibit opened on November 20 at the New Hampshire Historical Society. The exhibition features all manner of timepieces, clock movements and objects relating to New Hampshire's early clockmakers, spanning the years from 1750 to 1900. This exhibition marks the first time the Historical Society's major clock collection is on public display in the state. The New Hampshire Historical Society is open Monday through Saturday, 9:00 to 4:30 and until 8 p.m. on Wednesdays. For more information, phone (603) 225-3381.

Making Hand Tools in New Hampshire from 1800 to 1900: To present the little-known but highly polished work of the Granite State's 19th-century toolmakers, the New Hampshire Historical Society opened a major loan exhibition on December 20 entitled "Instruments of Change: New Hampshire Hand Tools and Their Makers." Drawing upon private and public antique tool collections across New England, the Historical Society is displaying some 300 examples of New Hampshire's hand-made tools. They trace the evolution of tool production from 1800 to 1900

in both the giant factories and the small mills or shops that dotted the banks of New Hampshire's rivers and streams. The Society is open Monday through Saturday, 9:00 to 4:30 and until 8 p.m. on Wednesdays. The show will be on view in the main second-floor gallery through May 30, 1985.

Old Sturbridge Village: The seventh OSV Field School in Historical Archaeology will be conducted from June 24 - August 9 at Old Sturbridge Village and at the home and work site of an early 19th-century, Barre, Massachusetts blacksmith and farmer named Emerson Bixby. Following a week of intensive orientation to the historical and material culture of early 19th century New England, students will spend six weeks learning the methods and techniques of field archeology, working at the Bixby site. This is the second season of a three-year project to develop new historical information for exhibits and interpretation at Old Sturbridge Village. Last season's excavations of the Bixby house yard provided much information on the family's domestic life. During the 1985 season work will continue at several features in the house lot, and OSV will begin intensive excavations of Bixby's blacksmith shop. The Field School will involve students in excavation, survey, measured drawing, conservation, and other field, lab, and recording activities. Lectures, workshops, and informal seminars will complement the work in field and lab.

The Field School is designed as the equivalent of a two-semester course at either the graduate or undergraduate level, with optional credit (8 semester hours) available through Clark University in Worcester, Mass. for \$100. A program fee of \$475 covers all materials and fees and includes complimentary admission to Old Sturbridge Village during the program. Local room and board for the duration of the Field School is also available for an additional fee. Participation is limited to 20 students. Applications will be processed as received. For further information and application forms, please contact: David Simmons, Archaeology Field School, Old Sturbridge Village, Sturbridge, Mass. 01566 (617) 347-3362.

that will open next May and travel for 15 months throughout the state, ending with permanent installation at Beavertail lighthouse. Any information on any aspect of Rhode Island's lighthouses will be greatly appreciated. Please contact: Sarah Gleason, RI DEM, 83 Park Street, Providence, RI 02903, (401) 227-6800.

The Blackstone Canal: The creation of a linear park along the Blackstone River and Canal corridor, extending 45 miles from Providence, RI, to Worcester, Mass., is now underway. This bi-state park, being developed by the Rhode Island and Massachusetts Departments of Environmental Management, with help from the National Park Service, will feature historic interpretation of 19th century industrial activities, particularly textile manufacture. Any historical information not found in standard sources will be very welcome, and visual materials especially. Please contact: Sara Gleason, RI DEM, 83 Park Street, Providence, RI 02903, (401) 277-6800.

HELP WANTED

Rhode Island Lighthouses: Research into the architectural history, as well as the folklore, of Rhode Island's lighthouses is currently underway. Co-sponsored by the RI Department of Environmental Management and the RI Historical Preservation Commission, and funded by a grant from the RI Committee for the Humanities, this research will be the basis of an exhibit

MEMBERSHIP APPLICATION

To apply for 1985 membership in either the Southern or Northern New England Chapter of The Society for Industrial Archeology please fill out the following form. (Members must also belong to the national Society for Industrial Archeology.) Membership in either Chapter automatically includes a subscription to the Newsletter.

Southern New England:

_____ Regular \$5.00 U.S.
_____ Student \$3.00 U.S.

Northern New England:

_____ Regular \$5.00 U.S.
_____ Student \$3.00 U.S.

Make checks payable to: Southern New England Chapter, Society for Industrial Archeology and mail to:

Fred Roe
Treasurer, SNEC-SIA
837 Winter Street
Holliston, MA 01746

or

Northern New England Chapter Society for Industrial Archeology and mail to:

Vic Rolando
33 Howard Street
Pittsfield, MA 01201

Name: _____

Address: _____