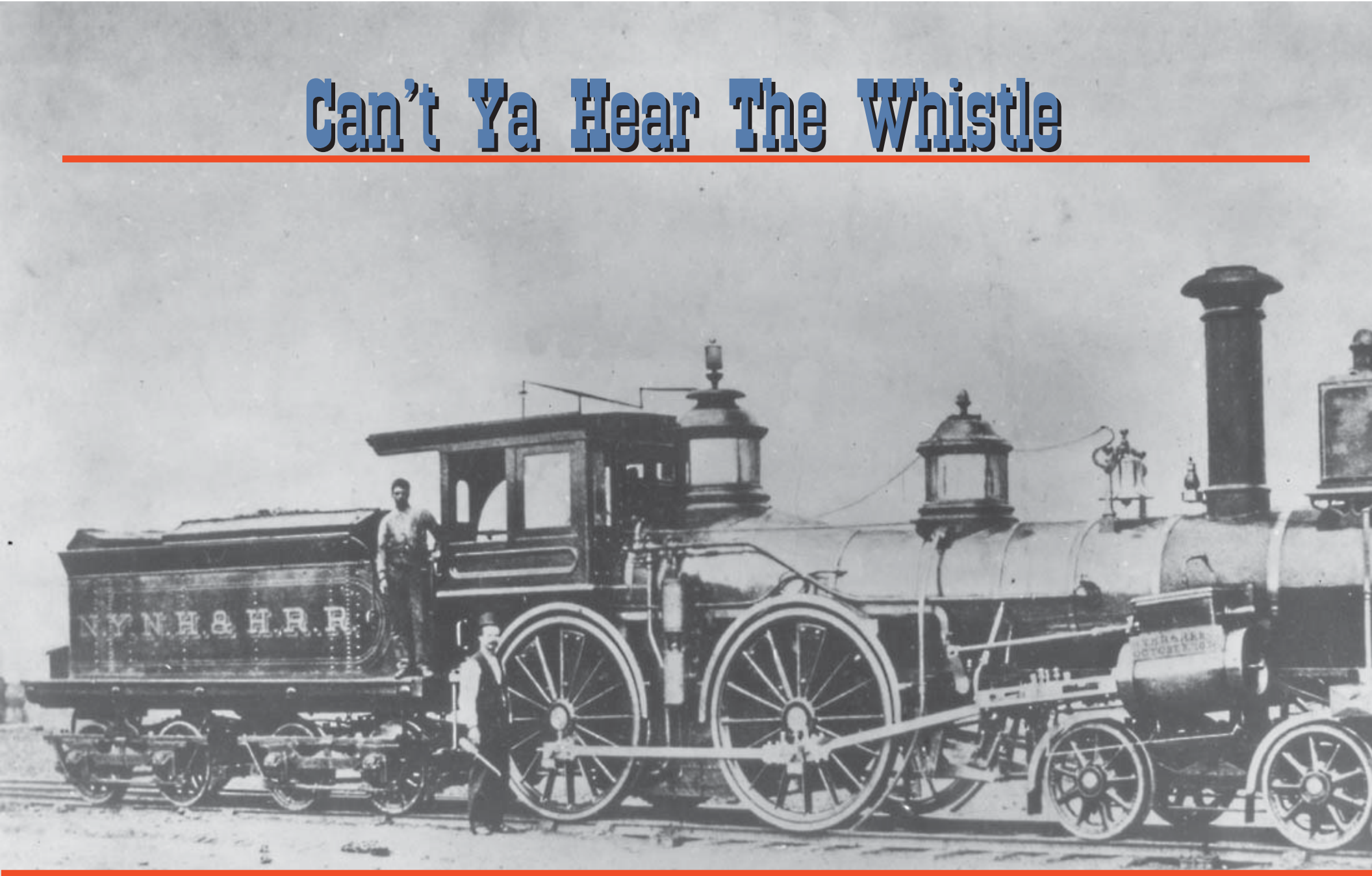
Can't Ya Hear The Whistle

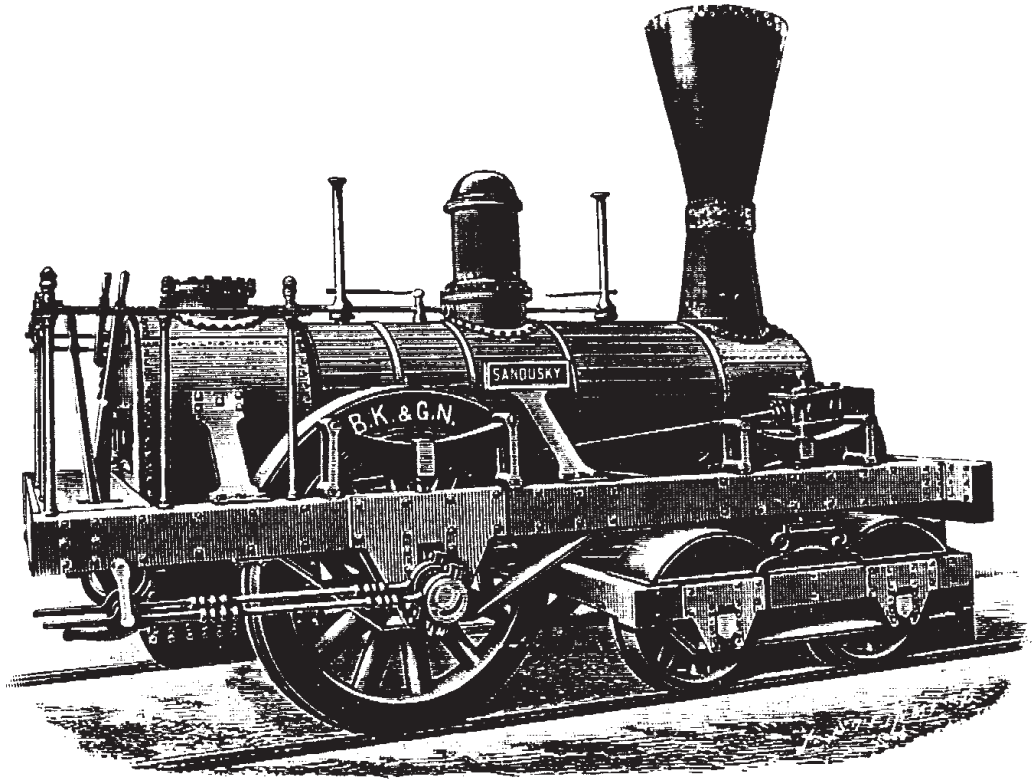


STATE ARCHAEOLOGICAL PRESERVE

CONNECTICUT STATE HISTORIC PRESERVATION OFFICE

New London Engine House and
Turntable Archaeological Preserve

New London, Connecticut



Above: Photograph of the Sandusky, the first locomotive produced by the Rogers, Ketcham & Grosvenor Company in 1837.

Front Cover: Rogers and Company Engine, 1852. Allyn Fuller Collection, Dodd Research Center, UConn.

Back Cover: Historic American Engineering Record photograph of the interior of a 19th century Engine House.

Acknowledgements

During the course of this project several individuals and institutions were extremely helpful with sharing information. Max Miller provided his research skills and a wealth of information on Connecticut Railways. Special thanks to Laura Katz-Smith and the staff of the Archives & Special Collections at the Thomas J. Dodd Research Center, University of Connecticut Library for all of their assistance.

The following institutions provided assistance regarding the history of New London and the New Haven and New London Railroad: the Branford Historical Society, the Clinton Historical Society, the Connecticut Historical Society, the Madison Historical Society, the E. C. Scranton Library in Madison, the Guilford Free Library, the Henry Carter Hull Library in Clinton, the J. Eugene Smith Library at Eastern Connecticut State University in Willimantic, the James Blackstone Library in Branford, Connecticut, the Lyme Historical Society, the New Haven Public Library, the New London County Historical Society, the New Haven Colony Historical Society, the New London Public Library, the New York Public Library, the Old Saybrook Historical Society, the Russell Library in Middletown, and the Westbrook Library.

This document has been funded by the New London Development Corporation through a grant from the Connecticut Department of Economic and Community Development under the administration of Governor John Rowland.

Can't Ya Hear The Whistle Blowin'

New London Engine House and Turntable Archaeological Preserve

2003

Publication Team:

Historical Perspectives, Inc.
Westport, CT
Sara Mascia, Ph.D., author
Lucy C. Pierpont, designer

Fitzgerald & Halliday, Inc.
Hartford, CT

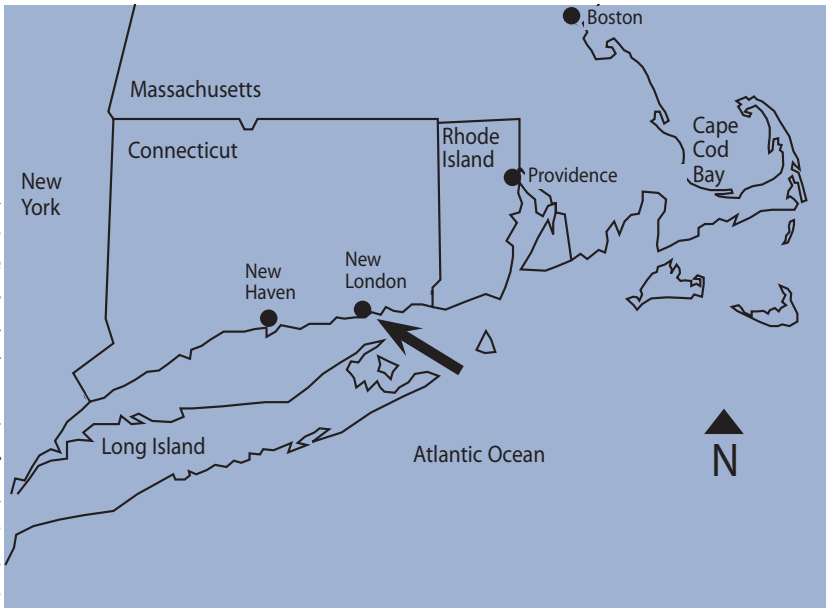
Introduction

"Can't ya hear the whistle blowin'
Rise up so early in the morn"

The haunting sound of a train whistle blowing, the engineer's call of "All Aboard," and the billowing black clouds of the coal-fed iron horses were all part of the American way of life. All over the country, songs and legends about life on the railroad have been repeated for generations. For those of us who grew up fascinated by trains and how their rumbling presence on the landscape evoked dreams of far off places, we are all too aware of their slow disappearance from the countryside and their gradual replacement by a vast network of paved roads and highways.

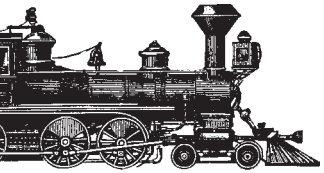
Once a pivotal part of the Northeast's growth and economic success, the popularity of trains has waxed and waned over the last century. As tracks were laid down and ripped up, and depots and roundhouses were built, only to be razed and paved over, this important aspect of American history has slowly been whittled away. Our memories and records of these events are fleeting, but the remnants of some of these once-prominent features still remain buried beneath layers of 20th century development.

This once-prominent industry has also left an imprint on our landscape. As many of the old railroad tracks and buildings disappear, historians and archaeologists are studying components of the former railroad network. One of these important, but now forgotten railroad sites is located in the City of New London.



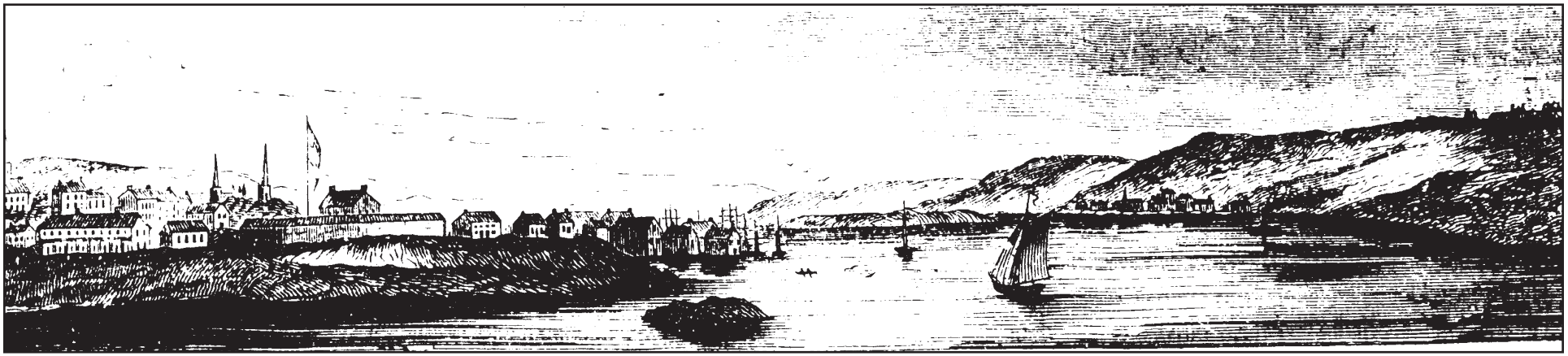
Location of the New London Engine House and Turntable Archaeological Preserve.

During the late 1990s, the New London Development Corporation began a large-scale improvement project in the Fort Trumbull area of New London. As part of the project, archaeologists investigated the former Amtrak rail yard, located on the north side of Walbach Street along the main route of the railroad. The examination of old maps and documents indicated that a mid-19th century turntable and engine house of the New Haven and New London Railroad were once standing in this location. The resulting archaeological investigation found the remains of these early railroad features buried under the modern rail yard. This booklet is designed to introduce you to the history of the New Haven and New London Railroad, the development of small railroad Engine Houses, and the results of the archaeological investigations of this important state Archaeological Preserve. A glossary and sources of additional information are included at the end of the booklet. (Information about other Connecticut archaeological preserves can be found on the inside back cover.)



The New London Engine House and Turntable Archaeological Preserve

"We are only passengers on the last train to glory" Arlo Guthrie



Nineteenth Century View of the New London Harbor.

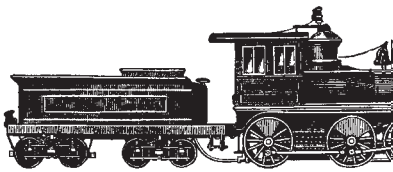
New London

"The eastern states are dandies
So the western people say"

The 19th century was a period of change for the waterfront community of New London. During the first half of the century, the city was the third largest whaling port in the United States. Commercial businesses associated with whaling had almost completely replaced the older 18th century residences along the waterfront. The construction of massive wharves, piers and warehouses was evidence of the economic boom that the whaling industry brought to the city.

The economy changed dramatically for the residents of New London just after 1845, when whaling was at its most profitable. The depletion of the whale population and the increased use of alternative fuels (gas, coal, and kerosene) triggered the swift decline of the whale oil industry. Although fishing continued as a major source of income, New Londoners began to search for other means of making a living. One of the most influential factors in the late 19th century development of the city was the introduction and development of steamship and railroad lines, which concentrated on the movement of freight. New London's location at the mouth of the Thames River on the Long Island Sound made it ideal as a transfer point for freight up and down the Atlantic coast as well as from inland towns and cities. The atmosphere was ripe for the introduction of the railroad to the community.

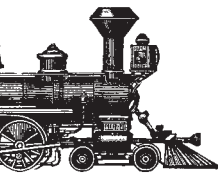
Rogers Engine #7 with railroad workers and a friendly dog that was often seen riding the rails. Allyn Fuller Collection, Dodd Research Center, UConn.



Detail of O.H. Bailey's Birds-eye view of New London, 1876. The New London Engine House was located on the Fort Neck, to the west of the commercial center of the City of New London. The historic settlement in the Fort Neck section of New London began when early settlers were granted two acres of salt marsh on Fort Neck to use for fertilizing fields and building homes in 1646. Later, during the 1770s Nathaniel and Thomas Shaw began to purchase the rights to the lands on Fort Neck in order to expand their farm. In some records, Fort Neck is called Shaw's Neck and the body of water located to the northeast of the site is identified as Shaw's Cove.

The defenses for the town and the Thames River were also located on the easternmost lands of Fort Neck. Fort Trumbull was formally established to defend the community during the 1770s when unrest with England escalated to war. Because of its strategic coastal location, Connecticut's General Assembly decided that a fort, named Fort Trumbull for the governor, should be established to protect the Thames River. A second fort, named Fort Griswold for the deputy governor, was established across the river at Groton. These fortifications, completed in 1777, proved to be ideal settings for the wealthy city's defense. The military continued to be a strong presence on Fort Neck until 1996, when Fort Trumbull's active military operations ceased.

Map courtesy of The Connecticut Historical Society, Hartford.



History of The New London Railroad

"I'll be gone five hundred miles when the day is done"

Steve Goodman

During the mid-19th century, New London's fishermen and former whalers saw the potential in establishing transportation lines across the state. Believing that having railroad access would be the salvation for New London, the city fathers encouraged the creation of a charter for the New London, Willimantic & Springfield Railroad in May of 1847. The Bank Street merchants and former whalers supplied much of the initial financial backing for this company, later known as the New London Northern Railroad. This was followed by decades of railroad fever that was mirrored all across southern New England. Over 100 independent railroads were created in the Northeast between 1850 and 1860.

The New Haven and New London Railroad was chartered in 1848. The following year, Alexander C. Twining provided his Engineer's Report and Preliminary Survey of the New Haven and New London Railroad. Twining recommended that the new railroad terminate in downtown New London because of the nearby "connections with harbor and with the different railroads that terminate there or may

Alexander C. Twining

A Connecticut man his entire life, Alexander Twining had a strong hand in shaping the 19th century landscape of the state he loved. Born in New Haven in 1801, he was the oldest child of Stephen Twining, a steward and acting Treasurer of Yale University. Young Alexander attended Yale and graduated with a Masters degree in 1820. In preparation for a life in the ministry, Alexander attended the Andover Theological Seminary, but returned to Yale instead to become a tutor from 1823 to 1825. Desiring to further his education in civil engineering, Alexander moved to West Point where he studied for many years under special consideration, as he was never listed as a cadet.

During his years at West Point, Alexander surveyed the area between New York and New Haven for the New York, New Haven, & Hartford Railroad. His surveyed route was not initially adopted as the company felt it was too costly. Several years later, the Company altered the route and followed most of Twining's original recommendations. Before finishing his studies in New York, Twining married a West Point girl in 1929. Together they raised seven children.

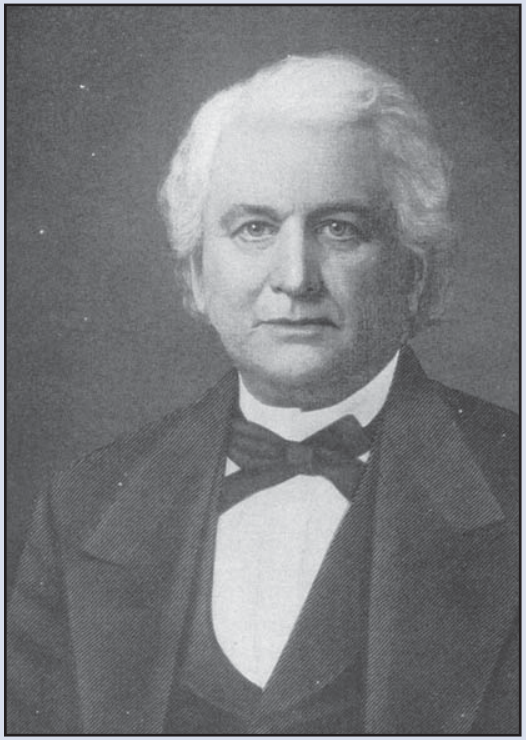
Twining returned to New Haven where he worked as a civil engineer concentrating on railroad surveys and reports. In 1835 he explored and mapped the countryside between Hartford and New Haven. His detailed report recommending the proposed route was immediately accepted and the route has remained essentially the same to this day. In 1839 he accepted the professorship in mathematics, civil engineering, and astronomy at Middlebury College in Vermont. Although he taught at Middlebury for the next ten years, he continued to survey and present comprehensive reports on proposed railroad routes including the Canal or Northampton Road in Connecticut and several others in the Midwest. In 1849 Alexander and his family returned to New Haven where he was immediately asked to survey the route for the proposed New Haven and New London line.

Although Twining continued to concentrate on railroads, he was also an inventor and staunch abolitionist. One of his interests was in the creation of refrigeration. In 1849 he filed for a patent for using a compression process to create cold artificially. A United States patent was granted in 1853 followed by one filed in England. He was able to secure money in Cleveland for his work and was eventually able to produce ice at the rate of 1600 pounds in 24 hours. Unfortunately the process was too expensive and although his patent was extended, he was never able to raise enough funds to put his ice manufacturing plant into operation.

His opposition to slavery was well known throughout New London. In fact, he was one of the prominent signers of the Connecticut petition concerning slavery sent to President Buchanan. During the 1850s he was also active in organizing and financing a group of colonists who traveled from Connecticut to Kansas to oppose slavery.

Closer to home, Twining mapped out the future water supply for the City of New London in 1852. At the time, city residents were still using individual wells and cisterns to obtain water. As the population grew, the need for clean water was becoming vital to the health of the community. Twining produced a report that offered a variety of solutions and potential water sources throughout northeastern Connecticut. His survey was used as an example for civil engineers and scholars for decades.

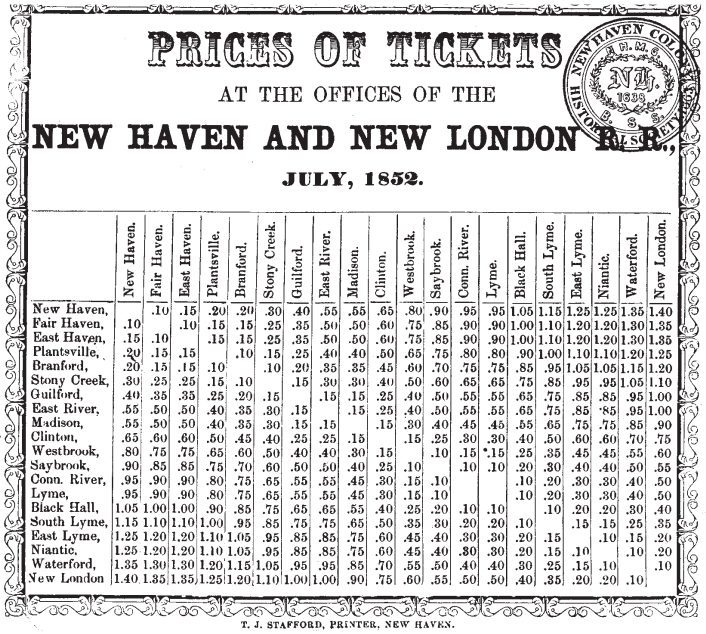
When Alexander Twining died in New Haven in 1884, his great engineering projects and the railroad lines he designed left a lasting imprint on the landscape of Connecticut.



Alexander C. Twining, 1801-1884.

be expected to terminate" in that location including the new Willimantic line.

Preparations for the construction of the New Haven and New London rail line, with an estimated cost of $1,414,350.00, were set in motion soon after Twining's report was submitted. Many of the Bank Street merchants, who had originally supported the new railroad, found themselves being pushed off their land as the Company began purchasing property along the proposed route. Following Twining's surveyed route, construction of the single-track rail line began in 1850. As part of his report, Twining recommended that several engine and



PRICES OF TICKETS

AT THE OFFICES OF THE

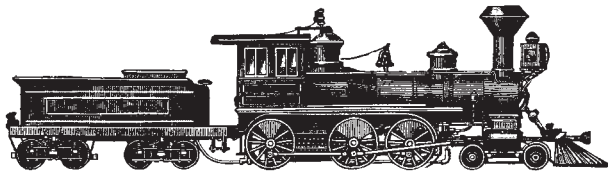
NEW HAVEN AND NEW LONDON R. R.,

JULY, 1852.

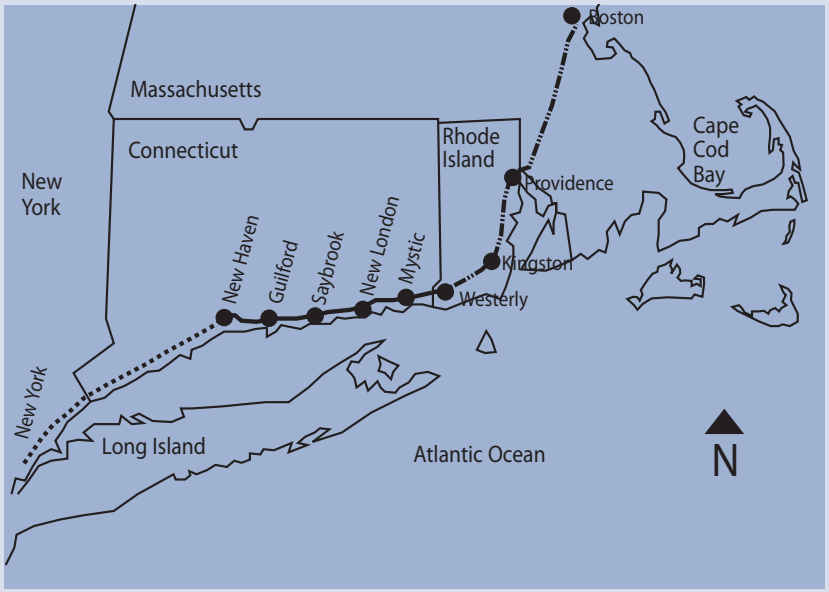
	New Haven.	Fair Haven.	East Haven.	Plantsville.	Branford.	Stony Creek.	Guilford.	East River.	Madison.	Clinton.	Westbrook.	Saybrook.	Conn. River.	Lyme.	Black Hall.	South Lyme.	East Lyme.	Niantic.	Waterford.	New London.
New Haven,		.10	.15	.20	.20	.30	.40	.55	.55	.65	.80	.90	.95	.95	1.05	1.15	1.25	1.25	1.35	1.40
Fair Haven,	.10		.10	.15	.15	.25	.35	.50	.50	.60	.75	.85	.90	.90	1.00	1.10	1.20	1.20	1.30	1.35
East Haven,	.15	.10		.15	.15	.25	.35	.50	.50	.60	.75	.85	.90	.90	1.00	1.10	1.20	1.20	1.30	1.35
Plantsville,	.20	.15	.15		.10	.15	.25	.40	.40	.50	.65	.75	.80	.80	.90	1.00	1.10	1.10	1.20	1.25
Branford,	.20	.15	.15	.10		.10	.20	.35	.35	.45	.60	.70	.75	.75	.85	.95	1.05	1.05	1.15	1.20
Stony Creek,	.30	.25	.25	.15	.10		.15	.30	.30	.40	.50	.60	.65	.65	.75	.85	.95	.95	1.05	1.10
Guilford,	.40	.35	.35	.25	.20	.15		.15	.15	.25	.40	.50	.55	.55	.65	.75	.85	.85	.95	1.00
East River,	.55	.50	.50	.40	.35	.30	.15		.15	.25	.40	.50	.55	.55	.65	.75	.85	.85	.95	1.00
Madison,	.55	.50	.50	.40	.35	.30	.15	.15		.15	.30	.40	.45	.45	.55	.65	.75	.75	.85	.90
Clinton,	.65	.60	.60	.50	.45	.40	.25	.25	.15		.15	.25	.30	.30	.40	.50	.60	.60	.70	.75
Westbrook,	.80	.75	.75	.65	.60	.50	.40	.40	.30	.15		.10	.15	.15	.25	.35	.45	.45	.55	.60
Saybrook,	.90	.85	.85	.75	.70	.60	.50	.50	.40	.25	.10		.10	.10	.20	.30	.40	.40	.50	.55
Conn. River,	.95	.90	.90	.80	.75	.65	.55	.55	.45	.30	.15	.10			.10	.20	.30	.30	.40	.50
Lyme,	.95	.90	.90	.80	.75	.65	.55	.55	.45	.30	.15	.10			.10	.20	.30	.30	.40	.50
Black Hall,	1.05	1.00	1.00	.90	.85	.75	.65	.65	.55	.40	.25	.20	.10	.10		.10	.20	.20	.30	.40
South Lyme,	1.15	1.10	1.10	1.00	.95	.85	.75	.75	.65	.50	.35	.30	.20	.20	.10		.15	.15	.25	.35
East Lyme,	1.25	1.20	1.20	1.10	1.05	.95	.85	.85	.75	.60	.45	.40	.30	.30	.20	.15		.10	.15	.20
Niantic,	1.25	1.20	1.20	1.10	1.05	.95	.85	.85	.75	.60	.45	.40	.30	.30	.20	.15	.10		.10	.20
Waterford,	1.35	1.30	1.30	1.20	1.15	1.05	.95	.95	.85	.70	.55	.50	.40	.40	.30	.25	.15	.10		.10
New London	1.40	1.35	1.35	1.25	1.20	1.10	1.00	1.00	.90	.75	.60	.55	.50	.50	.40	.35	.20	.20	.10	

T. J. STAFFORD, PRINTER, NEW HAVEN.

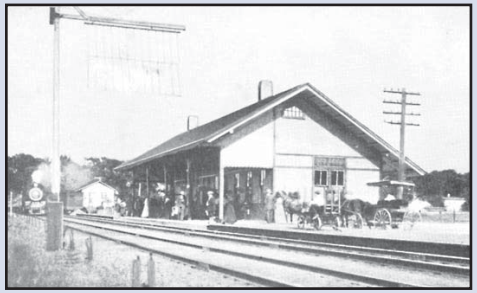
1852 Ticket Price Information, New Haven Colony Historical Society.



Clinton Railroad Station. Clinton Historical Society.



Map depicting the route of the New York and New Haven Railroad. The corridor was made up of connected rail lines belonging to several different railroad companies. The solid line in the center of the route identifies the section known as the Shore Line Railroad. The historical photographs show two of the stations located on the Shore Line route.



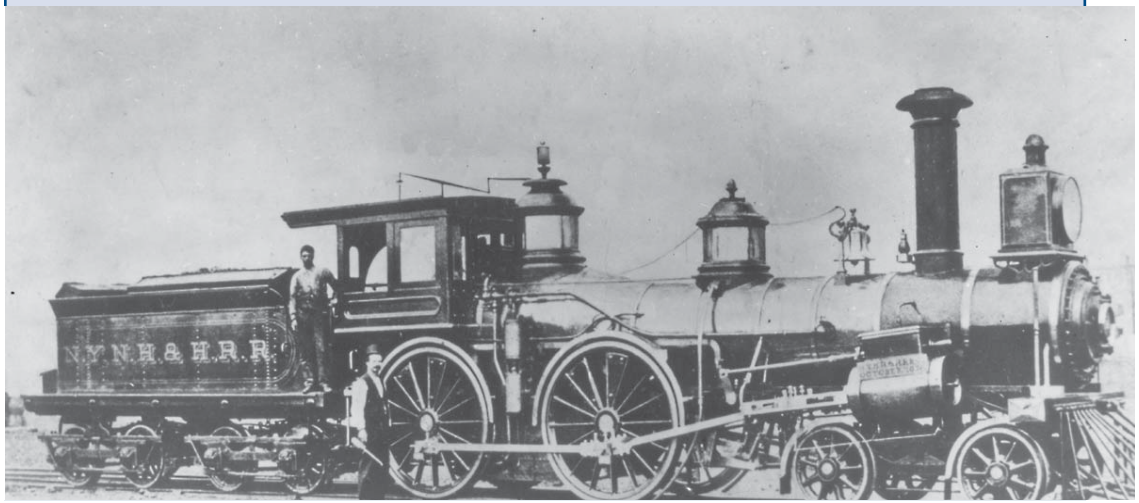
Madison Railroad Station. Madison Historical Society.

Rogers Locomotive

"Through the hills and by the shores
Hear the mighty rush of engines"

In 1832 Thomas Rogers formed a partnership in a Paterson, New Jersey machine works with New York investors Morris Ketchum and Jasper Grosvenor. That same year, the Rogers, Ketcham & Grosvenor Company (RKG) received an order to produce 100 sets of wheels and axles for Horatio Allen of the South Carolina Railroad. In 1833 the Paterson and Hudson River Railroad Company ordered a Stephenson locomotive from Britain. The engine was disassembled and transported to the United States where Thomas Rogers was called upon to reassemble the locomotive. Rogers spent one month carefully examining and putting the engine, named the "McNeill," back together. This project introduced the company to locomotive construction.

In 1837 RKG was hired to produce their first locomotive named the Sandusky. Based on what he learned from the examination of the Stephenson engine, Rogers adopted the 4-4-0 design (4 wheeled leading truck and 4 coupled driving wheels) and improved it by refining the suspension mechanism. The Sandusky remained in service for decades. Over the next thirty years, the Rogers Company increased production from one engine in 1837 to 103 in 1854. During the 1850s, Rogers became the leading locomotive manufacturer in the United States. In fact, the New Haven and New London Railroad purchased several locomotives from RKG during the 1850s and 1860s. When Thomas Rogers died in 1856, his son Jacob took over the company and renamed it the Rogers Locomotive and Machine Works. By the beginning of 1873 the company employed 1,648 workers and was producing one locomotive every second working day.



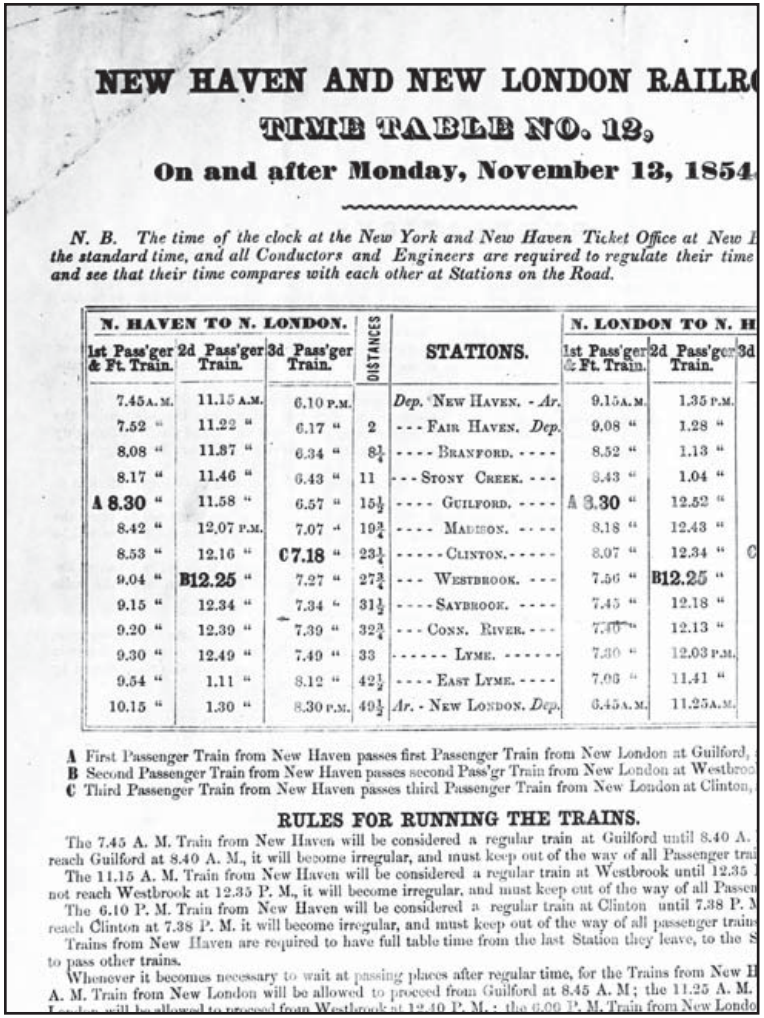
Rogers Locomotive "Olivia" built in the early 1850s. Allyn Fuller Collection, Dodd Research Center, UConn.

Engines of the Shore Line Rail Road

Engine	Builder	Builder No.	Date built	Cylinders	Driver Dia.
Madison (re-named Clinton)	Rogers K & G	#170	5/5/1849	13" X 20"	60"
New London	Rogers K & G	#306	3/11/1852	14" X 20"	66"
Lyme	Rogers K & G	#305	3/11/1852	14" X 20"	66"
New Haven	Swinburne	?	1852	14" X 20"	50"
Saybrook	Rogers K & G	#320	5/24/1852	14" X 20"	72"
Guilford	Rogers K & G	#319	5/24/1852	14" X 20"	72"
Branford	Rogers K & G	#147	10/12/1848	12" X 20"	60"
Westbrook	Rogers	#1173	7/14/1864	14" X 22"	66"
Madison	Rogers	#916	4/30/1860	14" X 22"	66"
#1532	Rogers	#1532	7/10/1868	15" X 22"	66"

Above:
Engines of the Shore Line Rail Road. This chart shows that the majority of the early locomotives were purchased from the Rogers, Ketcham & Grosvenor Company (later The Rogers Locomotive and Machine Works), Paterson, NJ.

Left:
Signalmen were often present on the tracks to advise conductors of any upcoming hazards or track activities. The lanterns they carried would be moved in different directions to "signal" information on the type of hazard the train was approaching or if the tracks were clear.



NEW HAVEN AND NEW LONDON RAILR

TIME TABLE NO. 12,

On and after Monday, November 13, 1854.

N. B. The time of the clock at the New York and New Haven Ticket Office at New H the standard time, and all Conductors and Engineers are required to regulate their time and see that their time compares with each other at Stations on the Road.

N. HAVEN TO N. LONDON. 1st Pass'ger & Ft. Train.	2d Pass'ger Train.	3d Pass'ger Train.	DISTANCES	STATIONS.	N. LONDON TO N. H 1st Pass'ger & Ft. Train.	2d Pass'ger Train.	3d
7.45 A.M.	11.15 A.M.	6.10 P.M.		*Dep.* New Haven. *Ar.*	9.15 A.M.	1.35 P.M.	
7.52 "	11.22 "	6.17 "	2	--- Fair Haven. *Dep.*	9.08 "	1.28 "	
8.08 "	11.37 "	6.34 "	8¼	---- Branford. ----	8.52 "	1.13 "	
8.17 "	11.46 "	6.43 "	11	--- Stony Creek. ---	8.43 "	1.04 "	
A 8.30 "	11.58 "	6.57 "	15½	---- Guilford. ----	A 8.30 "	12.52 "	
8.42 "	12.07 P.M.	7.07 "	19¾	---- Madison. ----	8.18 "	12.43 "	
8.53 "	12.16 "	C7.18 "	23¼	----- Clinton. -----	8.07 "	12.34 "	C
9.04 "	B12.25 "	7.27 "	27¾	--- Westbrook. ---	7.56 "	B12.25 "	
9.15 "	12.34 "	7.34 "	31½	---- Saybrook. ----	7.45 "	12.18 "	
9.20 "	12.39 "	7.39 "	32¾	--- Conn. River. ---	7.40 "	12.13 "	
9.30 "	12.49 "	7.49 "	33	------ Lyme. ------	7.30 "	12.03 P.M.	
9.54 "	1.11 "	8.12 "	42½	---- East Lyme. ----	7.06 "	11.41 "	
10.15 "	1.30 "	8.30 P.M.	49½	*Ar.* New London. *Dep.*	6.45 A.M.	11.25 A.M.	

A First Passenger Train from New Haven passes first Passenger Train from New London at Guilford,
B Second Passenger Train from New Haven passes second Pass'gr Train from New London at Westbroo
C Third Passenger Train from New Haven passes third Passenger Train from New London at Clinton,

RULES FOR RUNNING THE TRAINS.

The 7.45 A. M. Train from New Haven will be considered a regular train at Guilford until 8.40 A. reach Guilford at 8.40 A. M., it will become irregular, and must keep out of the way of all Passenger trai

The 11.15 A. M. Train from New Haven will be considered a regular train at Westbrook until 12.35 not reach Westbrook at 12.35 P. M., it will become irregular, and must keep out of the way of all Passe

The 6.10 P. M. Train from New Haven will be considered a regular train at Clinton until 7.38 P. M reach Clinton at 7.38 P. M. it will become irregular, and must keep out of the way of all passenger trains

Trains from New Haven are required to have full table time from the last Station they leave, to the S to pass other trains.

Whenever it becomes necessary to wait at passing places after regular time, for the Trains from New H A. M. Train from New London will be allowed to proceed from Guilford at 8.45 A. M.; the 11.25 A. M.

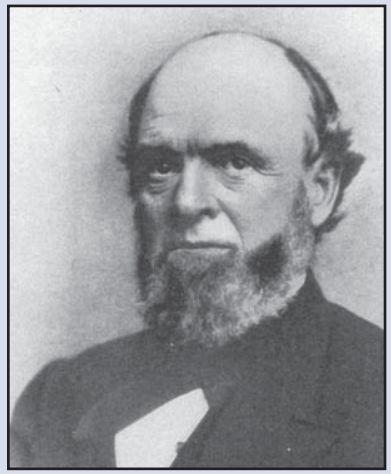
The 1854 Time Table of the New Haven and New London Railroad. Allyn Fuller Collection, Dodd Research Center, UConn.

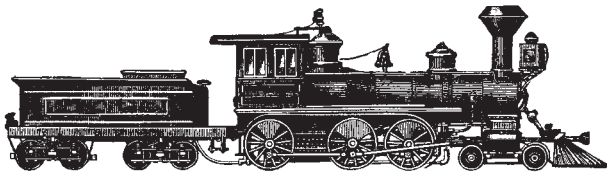
rail line began in 1850. As part of his report, Twining recommended that several engine and car houses be built along the route at an estimated cost of $23,000. These facilities were recommended by Twining as necessary for the success of the venture. Late 19th century maps indicate that there were several engine houses built along the railroad corridor. In 1856 it was announced that the final cost of the road was $1,456, 318.74, indicating that Twining's estimate was incredibly accu-

Erastus Scranton

Erastus Clark Scranton was born in East Guilford, now Madison, Connecticut in 1807. As a young boy, Scranton attended the local public school in Madison. Although his business career started when he signed on as a simple cabin boy, he soon prospered and became the owner and master of a sea vessel. He owned a mercantile near Washington, D.C. and a grocery in Augusta, Georgia before returning to the businesses of large-scale commercial banking and shipping. Starting in the early 1840s with a bank in Florida, he made enough money to return to Connecticut in 1844 with a considerable fortune. After that date, Scranton, along with several partners in New York City, invested heavily in trade with South America. He also had interests in several shipping lines.

By the late 1840s Scranton became one of the influential leaders to push for the creation of the New Haven and New London Railroad. After joining the Board of Directors for the new railroad, Scranton served on the Finance Committee during the first few years the rail line was in business. By the mid-1850s Scranton had severed his ties with the New York City investments and was elected President of one of New Haven's prestigious banks, the Elm City Bank (Second National Bank of New Haven). From 1846 until 1863 Erastus Scranton served on and off in both houses of the Connecticut Legislature. Through its many changes, Scranton remained a Trustee of the New Haven and New London, later the Shore Line Railroad. His interests in railroads spread and in 1865 he was elected President of the New York & New Haven Railroad, which would later lease the Shore Line. In 1865 he was also elected Mayor of Hew Haven. On December 29, 1866 Scranton accidentally fell and was killed as he tried to board a moving train in South Norwalk.

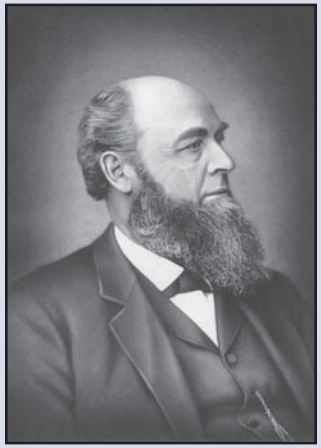




Cornelius Scranton Bushnell

Cornelius Scranton Bushnell was born in Madison, Connecticut in 1828. He grew up working on both his father's farm and quarry. When he was just fifteen, Bushnell joined the crew of a coasting vessel. Less than a year later he became the master of a sixty-ton schooner. During the next five years he saved his earnings and was able to purchase a house in New Haven. He partnered with his brother in the retail grocery business and guided it to become the largest of its kind in the state. In 1858, Bushnell's interests expanded to railroads. At that time, the New Haven and New London Railroad was struggling to remain open. At a meeting of the stockholders that same year, a plan to extend the line to Stonington, Connecticut was devised to generate income. Bushnell was chosen as president of the railroad and he immediately set out to raise the funds to pay for the expansion. Once he had raised enough money, he went to Washington to lobby for his railroad against the New York and New Haven Railroad, which refused to sell through tickets and check baggage for the Shore Line. During his time in Washington, Bushnell realized that there was an impending crisis between the north and the south. He was still in the city when Fort Sumter was fired upon and enlisted as a private soldier to guard Washington's public buildings. Although he served less than a month, a grateful Abraham Lincoln, who extended thanks for his valuable services at such a critical time, signed his discharge papers.

Before the Civil War had even started, Bushnell had expressed interest in improving the US naval forces. He firmly believed that stronger ships as well as armored vessels were needed to win the war for the Union. Bushnell returned to Connecticut where he established a shipyard at Fairhaven. He developed plans for a new kind of ship clad with iron. When he met Captain John Ericsson in New York, Ericsson showed him his plans for a similar vessel he called the Monitor. Bushnell realized that Ericsson's design was superior and immediately set about getting permission to build the ship. Using all of his Washington contacts, as well as meeting with Lincoln himself, Bushnell was finally able to persuade the naval board to allow him to build the ironclad on the condition that the government would be reimbursed if the project failed. Bushnell risked all of his property to build the ship that would not only help the Union win the Civil War, but would forever alter ship construction from wooden to armored vessels. During and after the War, Bushnell remained a Board member of the New York and New London Railroad.

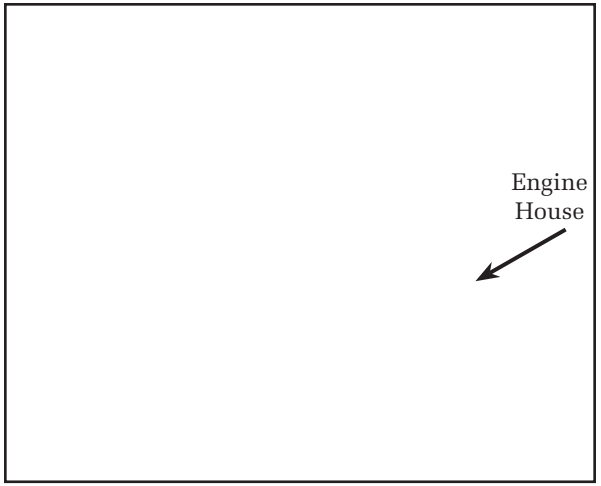


Detail from the Beers Atlas of New London, 1868. The Shore Line Railroad Yard is shown just south of Hamilton Avenue. At the time the map was prepared the Engine House was a sub-track design. (see page 12). Map courtesy of The New London County Historical Society.

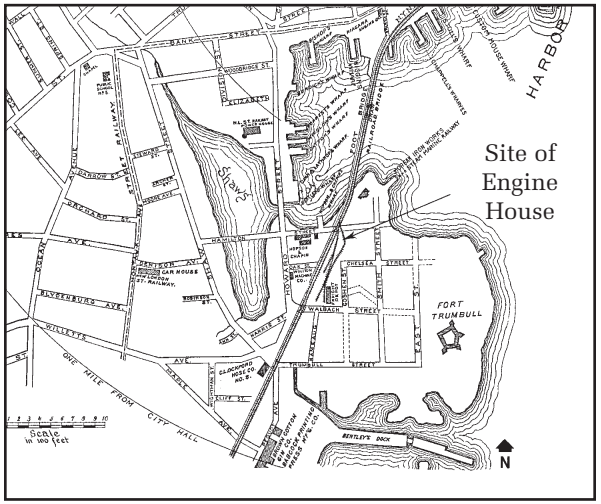
New London Railroad officially opened in 1852. Over the next few years, the Company continued to expand the route in order to establish a line that traveled from New York to Boston. In 1857, the New Haven and New London Railroad took over the New London and Stonington Line when it went bankrupt and completed the link between the two great cities of the Northeast. Unfortunately, at that time passengers still had to pass from rail line to rail line as no single entity had control over the entire route.

Shore Line Railroad

In 1864, after some restructuring of the Company, the original New Haven and New London Railroad was reorganized as the Shore Line Railway. With all of the new rail traffic in the city, a freight wharf



Detail of 1884 Sanborn Fire Insurance Atlas of New London. The Engine House has been expanded and identified as "Car Shops." The structure was also altered to a run-through engine house design.

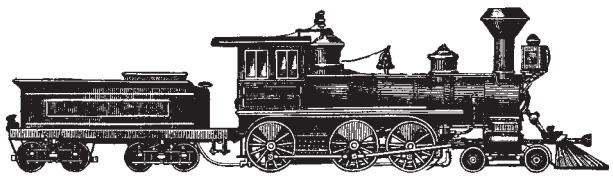


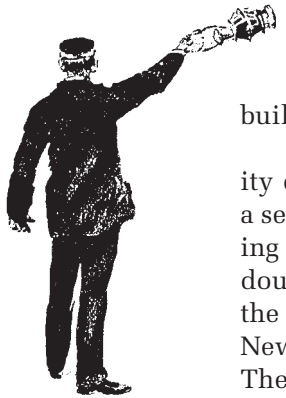
Detail of the Map of New London from Price and Lee's 1902 New London Directory. By this date the Engine House and Turntable have been removed and Freight House constructed just north of Walbach Street.

and depot were constructed at the end of State Street in downtown New London during the 1860s. At that time, the Shore Line was still ferrying trains over the Connecticut and Thames Rivers. During his second trip to America in 1867, Charles Dickens wrote of the trip:

> Two rivers have to be crossed, and each time the whole train is banged aboard a big steamer. The steamer rises and falls with the river, which the railroad don't do; and the train is either banged up hill or banged down hill. In coming off the steamer at one end of these crossings, we were banged up such a height that the rope broke, and our carriage rushed back with a run down hill into the boat again. I whisked out in a moment, and two or three others after me, but nobody else seemed to care about it.

In 1870, the Shore Line was leased to the much larger New York and New Haven Railroad. Following a merger with the Hartford and New Haven Railroad in 1872, the New York and New Haven Railroad became the New York, New Haven and Hartford Railroad. It was under the direction of the "New Haven," as it was commonly called, that a large roundhouse and repair shop was built near the State Street freight wharf on the Thames River by 1874. The New Haven Railroad was still leasing the line when the original railroad station in downtown New London burned down in 1885. The new Union Station was finished in 1887 and offered all of the existing rail lines a right-of-way to the





building.

Because of the popularity of the Shore Line route, a second track was laid during 1892-93, continuing the double tracking created for the original New York and New Haven line in 1854. The New Haven was finally able to gain control over the entire route between New York and Boston when it leased the Old Colony Railroad, formerly the Boston and Providence Line, in 1893, thus for the first time providing service by a single company for the entire route.

During the first three decades of the 20th century, the freight and passenger service on the line continued to prosper. During those years, several of the older engine houses and repair facilities were torn down. The New Haven Line was electrified dur-

Number of Daily Passenger Trains on the Shore Line/New Haven Line

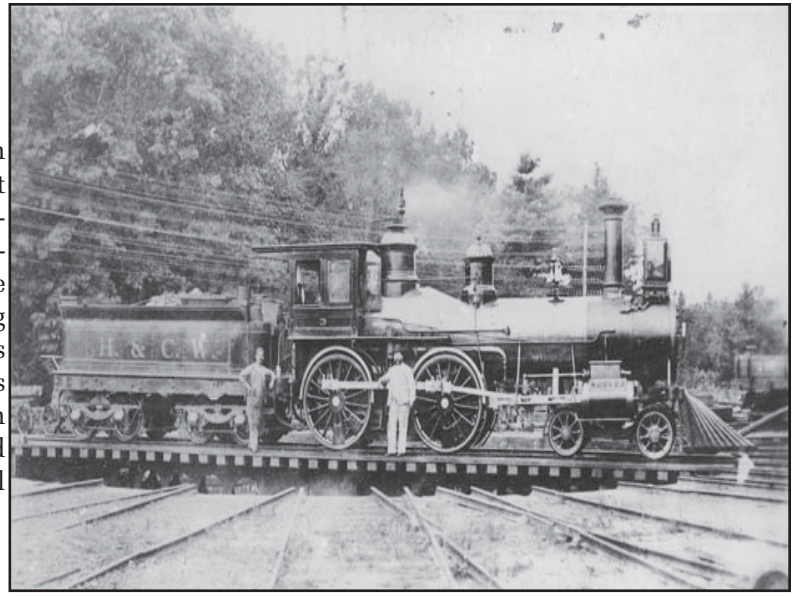
1869	10
1893	24
1919	32
1935	31
1950	34
1971	20
1993	22

of the older engine houses and repair facilities were torn down. The New Haven Line was electrified during 1914, enabling the line to improve service. The only major economic slow-down occurred during World War I when the government seized control of all major railroads. Once returned to private hands in 1920, the railroad again prospered until the stock market crash of 1929. The New Haven continued to operate until 1935, when the Company had to declare bankruptcy and reorganize, cutting out some lines and services. Competition with the automobile and constant cutbacks continued to threaten the railroad. In 1970, Congress passed the Rail Passenger Service Act, which enabled the creation of Amtrak, a quasi-public agency charged with keeping intercity passenger rail service in the Northeast and Midwest running.

After railroads became a major source of transportation, engine-houses were used to quarter and/or service the locomotives after runs. The design and construction of engine houses began in Britain during the second quarter of the 19th century. The earliest design types were either roundhouses or square (sometimes cruciform) structures. Roundhouses and smaller square houses typically had exterior turntables and larger square houses required interior transfer tables to move the engines sideways through the building.

Early engine house technology and design in North America was directly influenced by the early British designs. Historians generally agree that during the 19th and 20th centuries large circular, or semi-circular, roundhouses were more commonly built for the long-term servicing of steam engines along the main lines throughout the United States. Because of this, the roundhouse has become almost synonymous with the engine or locomotive house.

Engine Number 41 leaving a run-through engine house. Allyn Fuller Collection, Dodd Research Center, UConn.



Locomotive on a multi-track turntable. Allyn Fuller Collection, Dodd Research Center, UConn.

Throughout the northeastern United States, numerous independent railroad companies were formed during the 19th century. Frequently, several different companies on a rail line that traveled interstate, or for long distances, owned individual sections of the track route. These companies typically paid for the construction of their sections of the track and each built and maintained individual repair facilities.

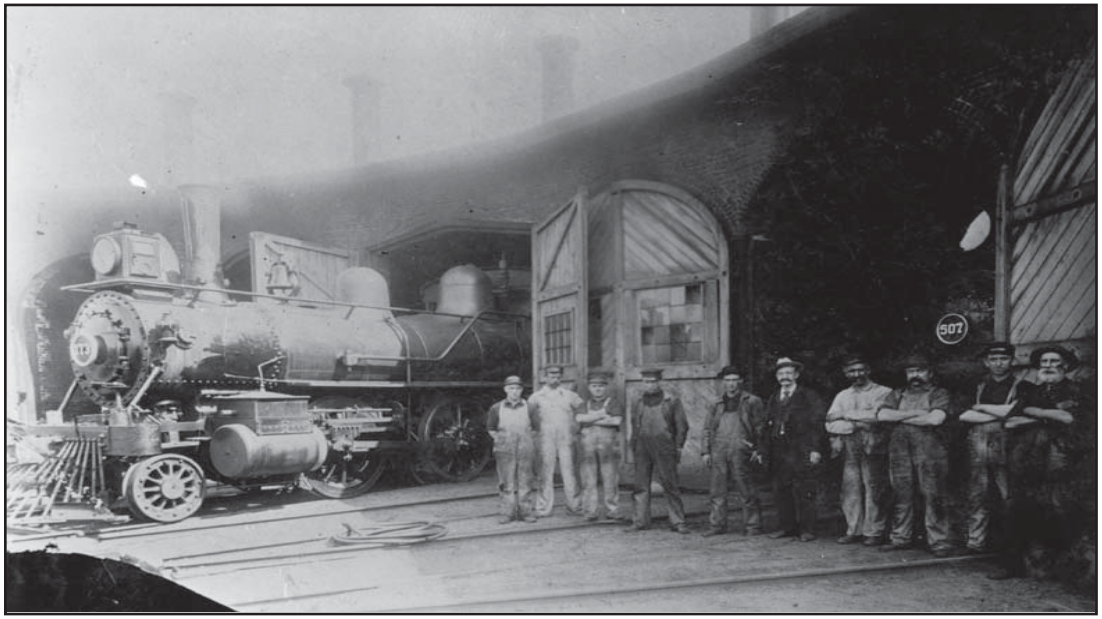
A review of historic maps throughout the Northeast indicates that contrary to the belief that roundhouses were the most common rail yard repair facility, many small square houses, in many cases identified as "car shops," were actually constructed and used throughout the late 19th century.

Although most engine houses were built at terminal or division yards, a few were constructed at junctions or in proximity to structures needed during the servicing of the locomotives (e.g., water tanks, oil-houses, ash-pits). The location, size and shape of engine houses were often dependent on the topography of the countryside and the building materials that were locally available.

There were three basic types of square-shaped engine houses: the run-through design, which was open at both ends; the sub-track type, which was open at one end and had buffers at the other; and the radial track type, containing one or more interior turntables. The square house was more rectangular in shape. Usually, the run-through square engine-house was built to service only a limited number of engines in

Working in a Rail Yard

"I've been workin' on the railroad
All the live-long day
I've been workin' on the railroad
Just to pass the time away"



Engine Number 77 with railroad workers at a 19th century roundhouse. Allyn Fuller Collection, Dodd Research Center, UConn.

Nineteenth century engine house and rail yard.
Allyn Fuller Collection, Dodd Research Center, UConn.

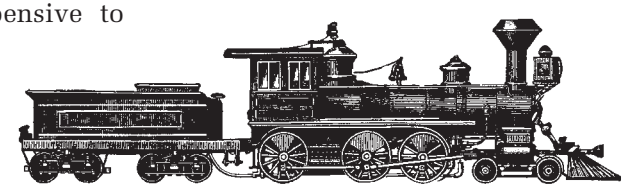
Engine Number 40 being serviced at a small square engine house.
Allyn Fuller Collection, Dodd Research Center, UConn.

a small yard and to get them repaired quickly. As railroad historian Walter Berg describes:

> The approach to these houses is, usually, by a track system leading off a leader, although sometimes, to economize space, the tracks run out of the building to a turntable.

These structures were designed to enable locomotives to move headfirst into, or through, the building stalls with the engine pilots (smoke stacks) facing the rear wall. In the roof above each stall smoke jacks, or small chimneys, were used to ventilate the area. Long, narrow engine pits, located beneath the stalls and usually three feet deep, allowed machinists, fitters and cleaners to complete maintenance under the locomotive. The foundations of early square engine houses were usually brick or stone. The interior floors were typically covered with cinders, cement, stone, asphalt, or timber, with the floor level flush with the top of the rails. Large double doors were open at either end and the walls and roof were made of heavy timber. The major disadvantage of the run-through type of engine house was that breakdowns could cause the tracks to be blocked.

Because there were so many independent railroad companies during the 19th century, each built and maintained individual repair facilities. For small rail lines, the square house was more practical because it was less expensive to



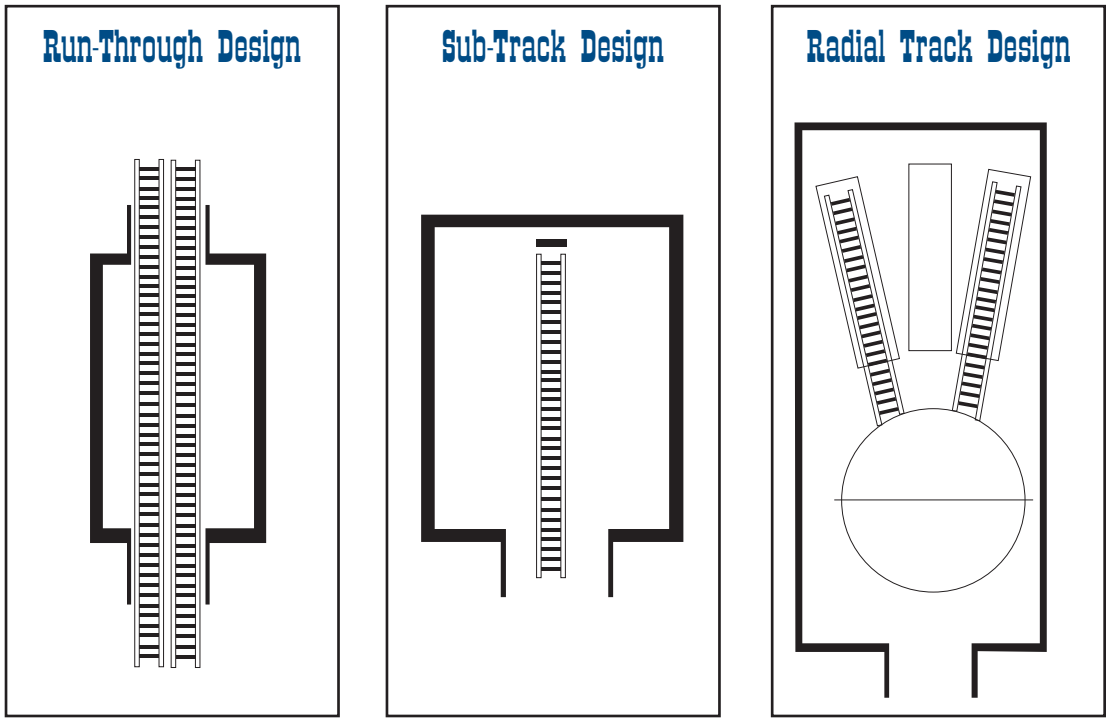
Stalls/Inspection

Historic American Engineering Record (HAER) photograph, showing workers in the interior of an active engine house. Allyn Fuller Collection, Dodd Research Center, UConn.

Most 19th century engine house stalls were between 35-50 feet long, with the bases sloping in the direction that best suited the layout of the drainage system. In many engine houses the inspection pit floors were flat and had small drains at the deeper end. In the more efficient engine houses, the center of the stall floors were typically crowned, or curved, so that workmen could have a dry place to labor when servicing the engine. Brick or stone side walls were several feet higher and supported railroad tracks. The depth of the pits varied considerably, but averaged between two and a half feet below grade at the shallow end and three feet at the deep end.

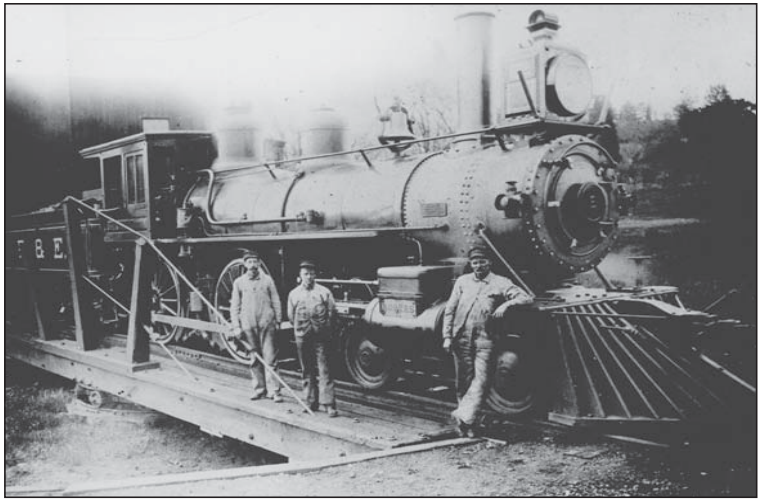
The design of engine house stalls, work areas, was probably not a result of labor health considerations, but rather was created to establish a profitable and efficient operation. In simple terms, the quickest way to get your engine repaired and back in operation was to create a clean and well-run facility. Washing down the facility and removing oils or other waste ensured that nothing would prevent the swift repair of a broken down locomotive. Although trade journals recommended a canted, dry floor underneath workers' boots, the economic emphasis on having a clean work area was probably the strongest influence on the construction of inspection pit floors and drainage systems.

build and the foreman of the yard could more easily observe all activity within the structure. Later, in attempts to economize, many of the combined rail lines closed and razed the smaller shops and engine houses in order to consolidate work areas and workers during the late 19th and 20th centuries.

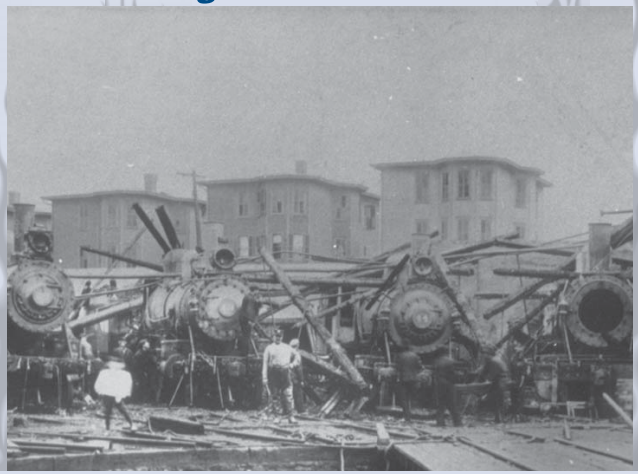


Illustrations of the three types of square engine houses constructed in the United States during the 19th century.

Railroad workers and locomotive on a turntable. Allyn Fuller Collection, Dodd Research Center, UConn.

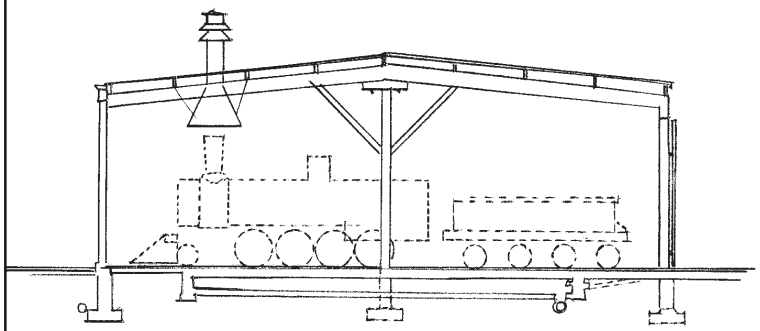


Fires in the Engine House



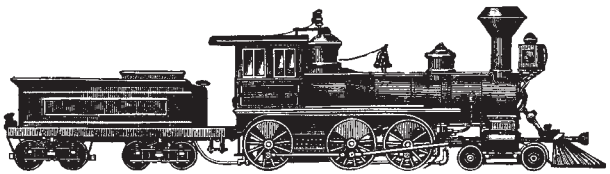
Engine House Fire. Allyn Fuller Collection, Dodd Research Center, UConn.

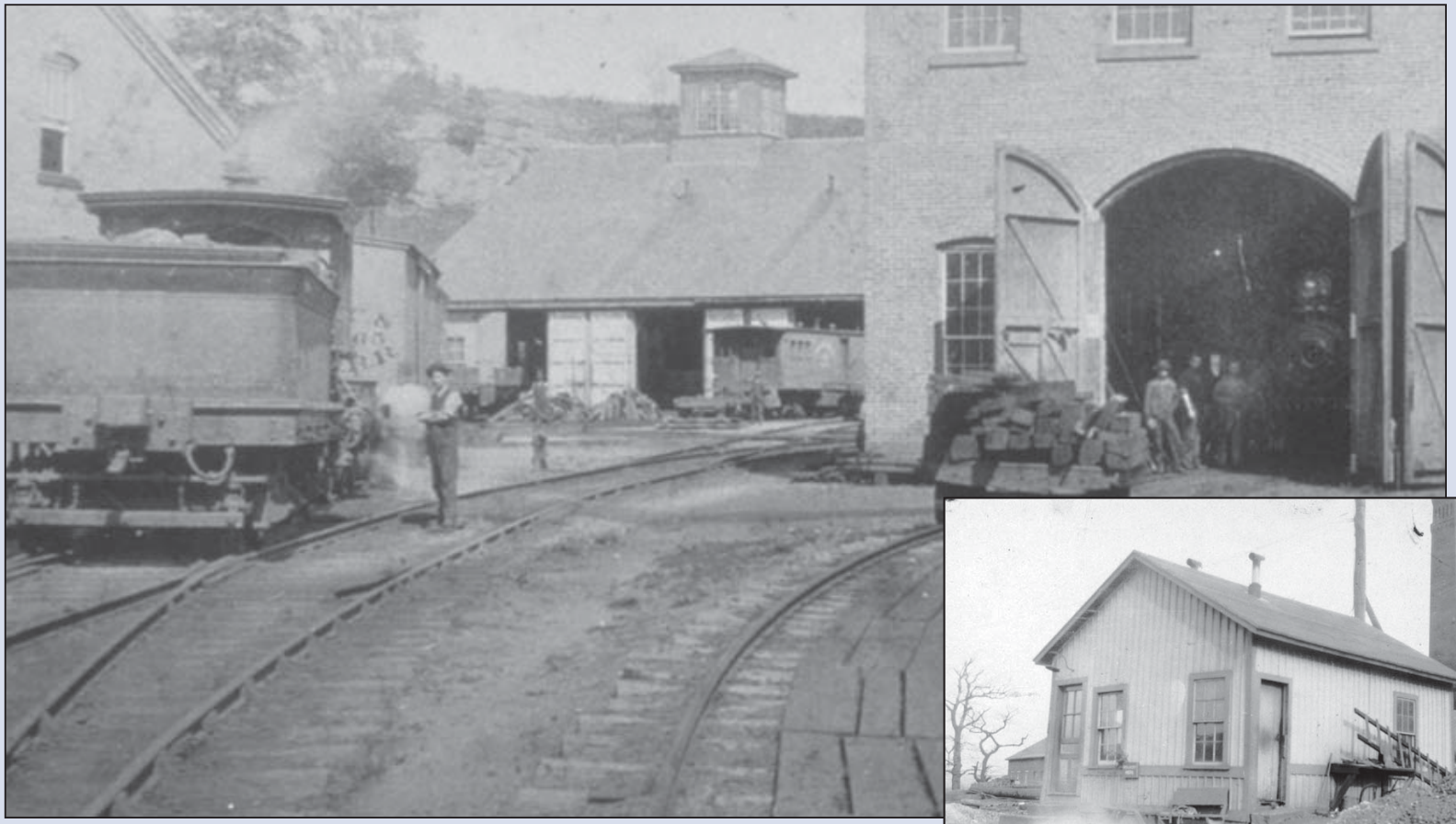
Two advantages of the square engine house design was that the structure, with doors only at the ends, was both easier to heat and escape from in case of fire. Early engine houses were heated with large round cast-iron stoves. A large stove with an associated chimney would often heat the rail yard offices as well. If the engine house structure was substantial, smaller stoves were often placed between, or inside of, every third or fourth stall. These smaller stoves had narrow stove pipes that fed into the nearest smoke jack. The presence of these stoves increased the potential for the engine house to become a firetrap. In later engine house designs, firewalls were commonly built between segments of the structure as a precautionary measure.



Profile of a typical Engine House

Profile of a typical Engine House. The engine enters the building on tracks and stops above the inspection pit. A smoke jack, located above the engine, vents any remaining fumes emitted from the locomotive



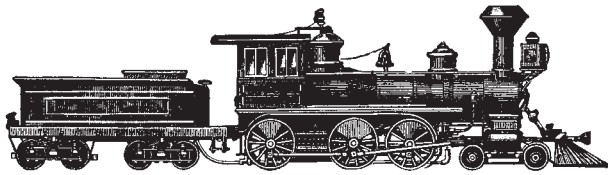


Typical 19th Century Rail Yard. Allyn Fuller Collection, Dodd Research Center, UConn.

Yard Master's Office, New London Rail Yard, 1920s. New Haven Railroad Abandoned Structures Collection, Dodd Research Center, UConn.

Rail Yards

Tracks and/or spur tracks led through the yard or stopped at engine houses or storage facilities. Buildings typically found in rail yards included the engine house, storage structures, offices, and privies (out houses). Water tanks, coal bins, and other fuel containers were also present in the yard. As engine maintenance work became more centralized and the smaller engine houses were razed, rail yards were more often used for storage and freight transfer. Coal clinkers, cinders, and ash were typically spread around rail yards. Not only were these materials necessary by-products of rail travel, they also facilitated drainage in work areas.



Engine House Archaeology

"The sons of pullman porters
And the sons of engineers
Ride their father's magic carpets made of steel"

Steve Goodman

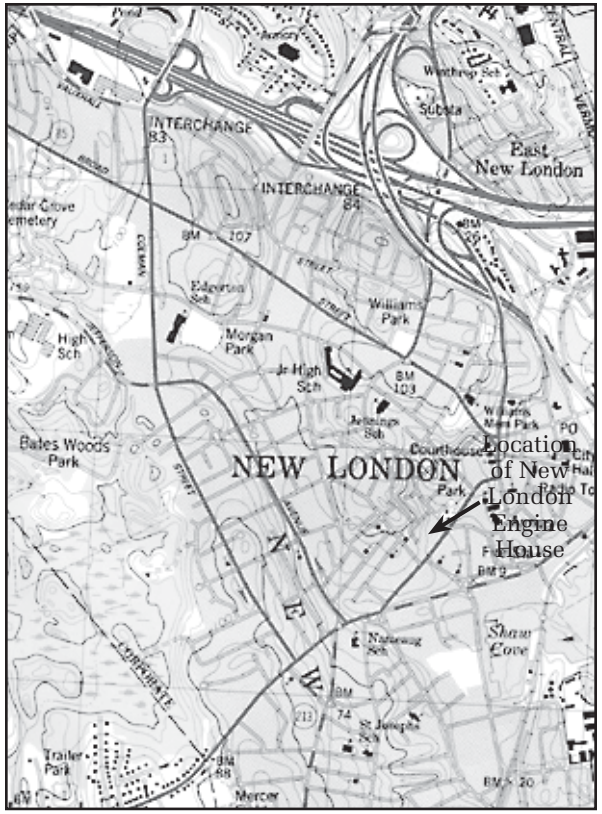
When the New London Development Corporation began a large-scale improvement project in the Fort Trumbull area of the City of New London archaeologists were hired to determine if cultural resources were present in the areas to be developed. One of the areas examined was the railroad yard located north of Walbach Street, on the east side of the main route of the railroad.

Photograph of the New London Amtrak Rail Yard, 2001.

The first stage of archaeological research involved a thorough review of local and regional histories as well as any primary documents relating to the history of the site. In addition, numerous maps were examined in order to discover details about the site's possible land-use over time and building history. In order to accomplish this task, researchers visited various libraries, historical societies and archives.

The initial documentary review discovered that a mid-19th century turntable and engine house of the New Haven and New London Railroad were once located on the project site. Because this location still functioned as a rail yard, with minimal 20th century infrastructure, the buried remains of these mid-19th century transportation features might still be present.

Field-testing was then conducted in order to determine if any of the historic railroad features survived in place buried beneath the ground. A team of archaeologists excavated three large trenches with the assistance of a backhoe. During testing, part of the foundation of the turntable, a brick drainage pipeline or conduit, and a large section of an inspection pit, once located within the square engine house, were exposed. Testing also uncovered the layer of black coal that was the former working, or "operational," surface of the 19th century rail yard. The foundations of the turntable and inspection pit were built of large cut granite stones. The inspection pit also had three stone stairs leading down to a brick floor, which was slanted to promote drainage toward a central drain near the stairs. The stone sidewalls were just over two feet higher than the floor and would have supported the railroad tracks and



Archaeologists typically use United States Geological Survey maps to identify the exact location of sites, and to gain information on nearby water sources and the surrounding landscape.

locomotive as it passed through the building. Workers could then descend into the inspection pit in order to repair or examine the underside of the train.

Because extensive underground construction was not planned, it was determined that the archaeologists should monitor the project-related exposure of these important railroad features. In this case, monitoring enabled archaeologists to use a backhoe to remove the thick layers of fill that covered the earlier railroad foundations. Archaeologists were then able to photograph and measure the exposed features. The main

Archaeological Monitoring

"And the story, still unravels,
from the dreams of yesterday"

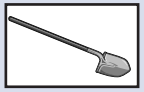
Jim Croce

objective was to identify and preserve any important features in place. During monitoring, archaeologists exposed two additional inspection pits, a slate-covered drain, a service area within the engine house containing pine plank flooring, and the mortared foundation of the round turntable.

An Archaeologist's Tools


Books


Trowel


Shovel


Whisk broom


Screen


Backhoe

Photographs of the New London Amtrak Rail Yard, 2001.
a. Excavation with a backhoe exposed a portion of the granite turntable foundation.
b. Close-up of the turntable foundation.
c. Further excavation uncovered Inspection Pit #1. Note the granite stone steps at the Pit's north end.

Once exposed, the turntable had an interior radius of 25.3 feet. The top of the turntable was notched at the track entrance and exit areas and large timbers were present within the notches. Because the entrance and exit locations were high-wear areas, the cheaper wood timbers could be more easily fitted into the notches than stone replacements.

The two inspection pits were similar to the one found during the earlier excavation. Each inspection pit was approximately 39 feet long and had granite block steps at the north end. In addition, ceramic drains ran from beneath the pit floors to a large brick drain or conduit. In several locations portions of the exterior building walls were also identified. The surviving remains indicated that the outer walls of the engine house were constructed of brick.

a

b

c

Understanding the Engine House

"I know every engineer on every train
All of their children, and all of their names"

Roger Miller

Archaeological study of the New London Engine House and Turntable provided information on early railroad history and technology. Today the loss of these buildings is evidenced in the books, newsletters, and web pages of railroad historians and enthusiasts. The excavation of the features also provided the opportunity to examine the construction of, and changes made to, this 1850s transportation complex.

Construction Materials

The engine house and turntable were constructed of stone, brick, and wood. The large stones used for the foundations of both the

engine house and turntable were cut granite. Because of the proximity of large granite quarries throughout New England, granite was a popular building material. The three inspection pits were constructed of both stone and brick. Brick was used to create the sloped pit floors and drains. All of the drains examined flowed away from the site to the west under the extant tracks. Testing also exposed the engine house floor, which was bedded with cinders and covered with wood in the work areas, a practice typical of low-cost engine house construction in the mid 19th century.

Changes Made to the Building

In order to remain competitive with rival railroads, and save money, railroad line owners continuously updated or replaced older buildings. At the New London Rail Yard changes included modifying the building from a sub-track to a run-through design and the eventual construction of additional inspection pits. The larger building, renamed a "Car Shop" during the 1880s, would have allowed more engines to be serviced, thus saving the company money.

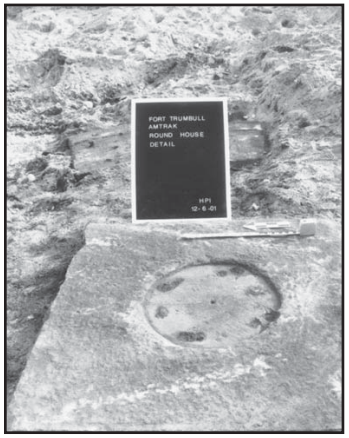
Rail Yard

During the excavations, a layer of black soil mixed with coal and ash was uncovered throughout the former rail yard. The prolonged use of coal as a source of energy encouraged the regular deposition of large piles of coal within rail yards. In addition, the presence of coal and ash on the "operational" surface encouraged drainage and absorbed spilled oils and lubricants.

a

b

c



d

Old Saybrook Archaeology Project

As part of a larger field study of Saybrook Point, Connecticut, Harold Juli and students from Connecticut College conducted excavations at the Saybrook Roundhouse in 1980. Prior to testing, research and informant interviews had determined that a roundhouse built by the Connecticut Valley Railroad was constructed at Saybrook Point sometime during the last quarter of the 19th century and dismantled in 1922. Archaeological investigations of the roundhouse and turntable revealed the remains of a six-stall, one-quarter wedge-shaped roundhouse. Two of the six stalls were excavated and researchers discovered that each stall was built on a base of two granite footings. The remains of brick sidewalls, that formerly supported the railroad track, were also uncovered. In addition, pier supports were found in the location of the former stall entrances, spaced approximately three meters apart. The two stalls also had ceramic pipes or conduits for venting excess water and bins for the disposal of coal ash. Archaeologists also located the cement turntable foundation. Today, the granite and brick foundations of the roundhouse have been incorporated into the public interpretation of the town's Saybrook Point Park near the Connecticut River.

a. During the monitoring excavation, Inspection Pits #2 and #3 were discovered.
b. The turntable foundation was also completely uncovered.
c. A circle of granite blocks was found at the center of the turntable.
d. A stone block to support the turning mechanism was uncovered directly in the center of the turntable.

Removal of Buildings

"Well if you say so,
I will railroad no more"

During the late 19th century a few key owners, who combined numerous small lines into larger networks, monopolized the railroad industry. The notion of centralizing repair facilities at urban terminal yards began to make economic sense. Centralizing repair shops

would ensure that no engine house worker would be idle, as would happen at some of the more remote repair houses. Parts and supplies would also only be needed at one facility and not delivered along the line where they may, or may not, be used. In addition, as newer and more advanced trains were put into service the remote engine houses could not repair the more sophisticated locomotives. When the centralized hubs were built, the New London Engine House repair facility became obsolete.

Archaeological investigation together with surviving historical documents, tells a story of this small rail yard over time. Not long after the creation of the New Haven and New London Railroad, a manually rotated turntable and a square engine house were constructed on the lot. Excavation revealed that the New London rail yard features were typical in design using large cut granite stone for the foundations and brick for the pit flooring and drainage lines. The engine house was originally a subtrack design with an exterior turntable. The building was later enlarged and altered to become a run-through type of engine house that was open at both ends. The interior inspection pits were probably altered when the house became a car shop.

As the railroads consolidated and more engine repair was more often conducted at central facilities, smaller engine houses were no longer cost-efficient and were razed. In the case of the New London engine house, the above ground structures, including the tracks, were removed and the area was filled. This probably occurred following the construction of a large freight house located to the south.

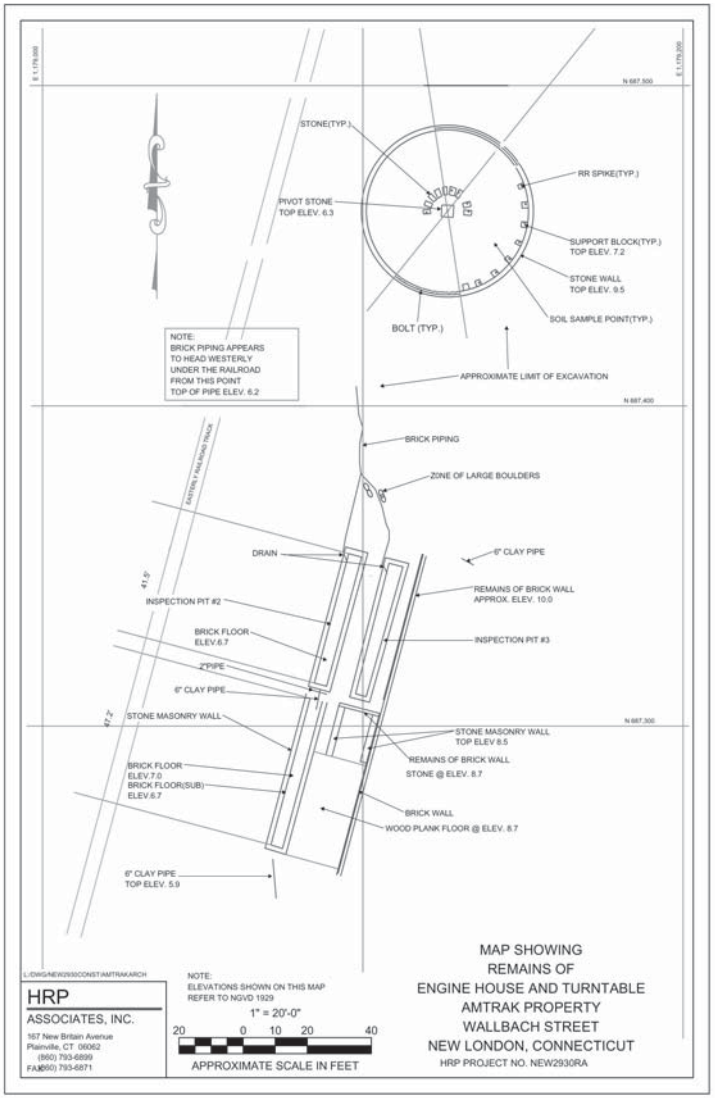
Because limited documentary materials

e

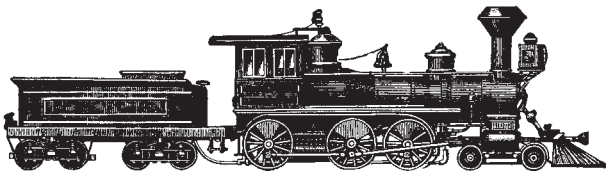
f

e. Close-up of the brick floor of an inspection pit.

f. The granite used in the construction of the engine house was probably from a local quarry. The sidewalls that were still in place were approximately two feet deep.



Archaeologists often work with engineers and cartographers to survey excavation trenches and archaeological features on the modern landscape. The excavation map, produced by HRP Associates. Inc., shows the layout of the turntable and inspection pits identified during the archaeological investigation of the New London Engine House and Turntable Archaeological Preserve.



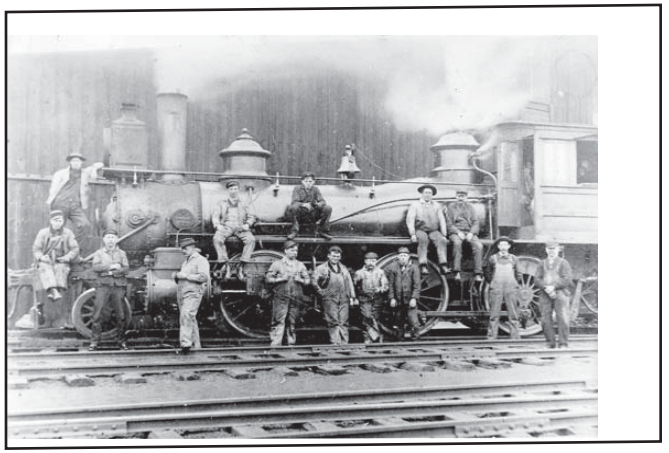
The Engine House Story

"The conductor sings his song again,
The passsengers will please refrain
This trains got the disappearing ra
blues" *Steve Goodman*

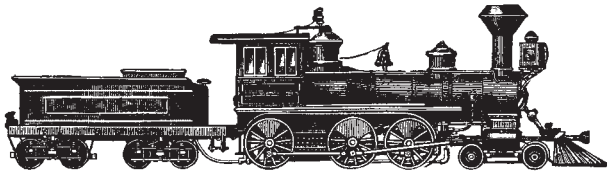
have survived (maps, photographs, personal accounts), the archaeological investigation has provided an overview of the layout and activities of the engine house. Excavations relocated and exposed the engine house and turntable foundations and were able to supplement what little was known about their construction. At present, the layer of ash, coal, and fill that blankets the site protects the buried engine house and turntable foundations, which survive in a very good state of preservation.

Today when we walk along the tracks or into empty rail yards, we hear echoes of the thousands of trains and workers who once belonged to one of the most complex transportation networks in the world. With the whistles still blowing in our imagination, and with sites like the New London Engine House and Turntable Archaeological Preserve, we can share the memories of life on the 19th century rails.

Engine #14 and workers, September 1906.
Allyn Fuller Collection, Dodd Research Center, UConn.



19th century engine with rail yard workers.
Allyn Fuller Collection, Dodd Research Center, UConn.



Glossary

Archaeology: The study of past human societies and their lifeways based on cultural remains that have been preserved through time.

Artifact: An object manufactured and/or used by humans.

Cultural Resources: Structures, properties, and objects from the past that constitute both our national and local heritage, including historic buildings, and precontact and historical archaeological remains.

Engine House: The building where repairs, cleaning, and/or maintenance of locomotives takes place.

Feature: Any part of an archaeological site that is a result of human activity that cannot be removed from a site intact.
Inspection Pit: Below-ground work areas in an engine house where individuals can work beneath a locomotive to service or clean the engine.

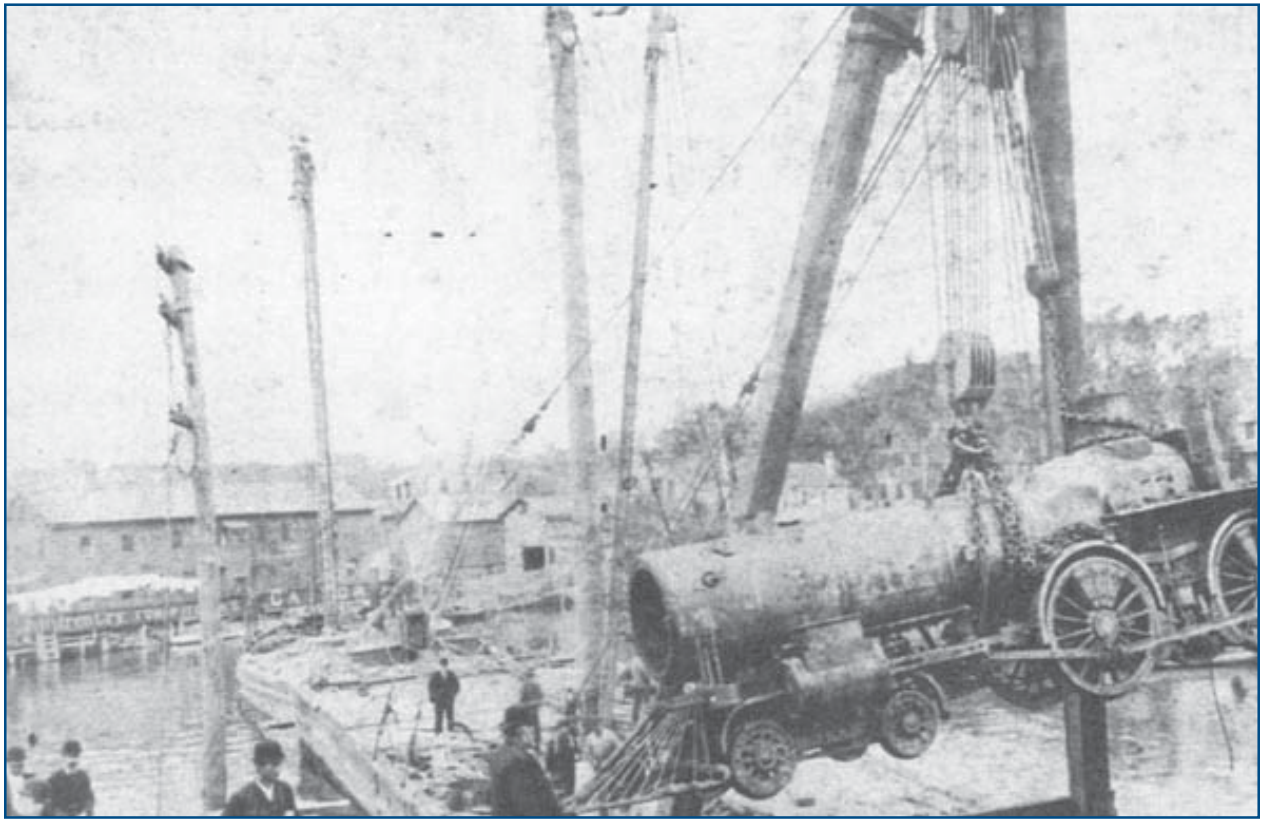
Monitoring: A phase of archaeological field work where technicians record the exposure of existing surfaces by heavy equipment.

Roundhouse: A semi-circular or round building where repairs, cleaning, and/or maintenance of locomotives takes place.

Smoke Jack: A small vent or chimney that is situated above the stalls or heating stoves within an engine house or roundhouse.

Turntable: The circular machinery used to turn a locomotive around at ground level.

Below: Railroad Accident at Shaw's Cove, New London.



Sources of Additional Information:

Berg, Walter G., Train Shed Encyclopedia: No. 19. Buildings and Structures of American Railroads. John Wiley & Sons, California. 1974 Reprint of 1893 edition.

Clouette, Bruce, "Report on Archaeological Monitoring: Church Street South Extension, New Haven, Connecticut." Report on file at the Dodd Research Center, UConn.

Historic American Engineering Record.
http://memory.loc.gov/ammem/hhhtml/hhhome.html

Juli, Harold, "Historical Archaeology at Saybrook Point, Connecticut: Excavation and Interpretation at an Archaeological and Historical Park." In Northeast Historical Archaeology. Volume 20, 1990.

Northeast Historical Archaeology, (1975) "Salvage Archaeology in Paterson, NJ, 1973-75" (Edward Rutsch), "The Evolution of the Rogers Locomotive Company, Paterson, NJ"; (Brian Morrell), "The Examination of the Technology that Evolved From the Rogers Locomotive & Machine Company, Paterson, NJ" (Ralph Leo).

Public Archaeology Laboratory, New Haven to Boston: Amtrak's High Speed Rail Program, History and Historic Resources. Printed in Rhode Island. 2001

Railroad History Collections. Archives & Special Collections at the Thomas J. Dodd Research Center, University of Connecticut Libraries, Storrs, Connecticut.

Turner, Gregg M. and Melancthon W. Jacobus, Connecticut Railroads...An Illustrated History. The Connecticut Historical Society, Hartford, Connecticut. 1986

Connecticut Railroad Sites Open to the Public:

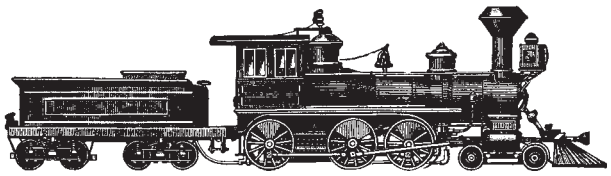
Connecticut Trolley Museum. Route 140, East Windsor. Danbury Railway Museum, 120 White Street, Danbury.

Essex Steam Train and Riverboat Tours. One Railroad Avenue, Essex.

Railroad Museum of New England, Inc. Thomaston,
http://www.rmne.org

Saybrook Point Park, College Street, Old Saybrook.

The Shore Line Trolley Museum. Operated by the Branford Electric Railway Association. 17 River Street, East Haven.

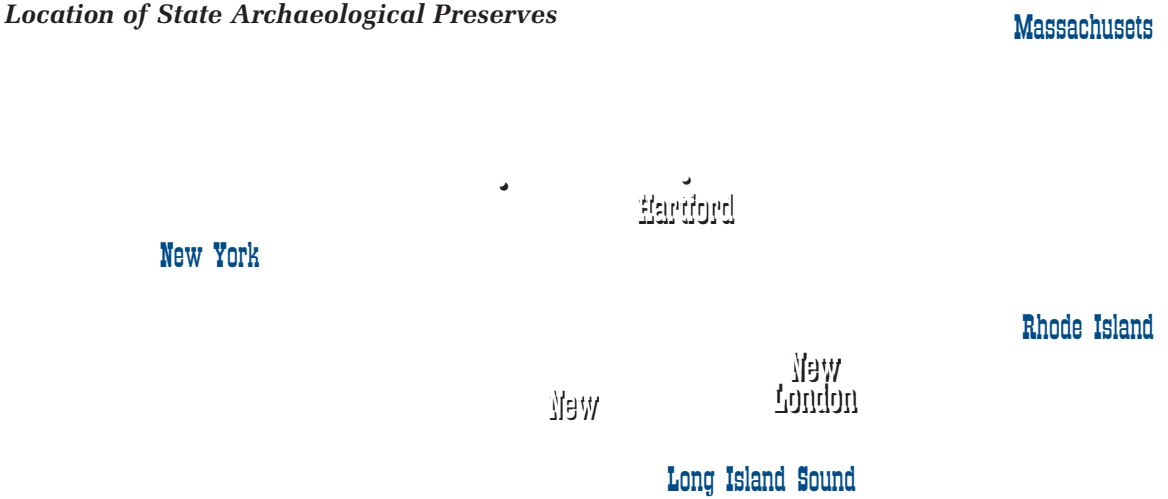


State Archaeological Preserves

Connecticut's State Archaeological Preserves
(December 2002)

1. **Fifth Camp of Rochambeau's Infantry Archaeological Site, Bolton**
2. **Newgate Prison and Copper Mine, East Granby**
3. **Small Pox Hospital Rock Site, Farmington**
4. **Axle Shop-Spring Factory Archaeological Site, Hamden**
5. **Kent Iron Furnace, Kent**
6. **Fort Wooster Park, New Haven**
7. **Putnam Memorial State Park, Redding and Bethel**
8. **Fourth Camp of Rochambeau's Army, Windham**
9. **New London Engine House and Turntable Archaeological Preserve**

Location of State Archaeological Preserves



State Archaeological Preserves were established by the Connecticut Legislature as a mechanism to protect significant archaeological sites. Archaeological sites that are listed on the National Register of Historic Places and/or the State Register of Historic Places qualify for designation as a Preserve, whether the land is private or public property. The National Register is the official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture worthy of preservation. These contribute to an understanding of the historical and cultural foundations of the Nation. Similarly, the State Register of Historic Places is a census of historic and archaeological resourses that are integral to the development of Connecticut's distinctive character.

The Connecticut Historical Commission is empowered to designate archaeological sites as preserves (C.G.S. Section 10-384). The Commission, in coordination with the Office of State Archaeology and, when appropriate, the Native American Heritage Advisory Council, works with property owners to nominate significant sites as Archaeological Preserves. The Commission is also charged with maintaining the master listing of all archaeological preserves.

Preserves recognize both the educational and cultural value, as well as the fragile nature, of archaeological resources. Many of Connecticut's Preserves are on private land and fall under the protection of property owner rights. In addition, Connecticut law provides that, regardless of whether a Preserve is on private or public land, no person shall "excavate, damage or otherwise alter or deface the archaeological integrity or sacred importance" of a Preserve. Connecticut State Statute Section 10-390 provides significant penalties for vandalism and the unlawful collecting of archaeological remains from State Archaeological Preserves.

Dr. David A. Poirier, Staff Archaeologist
Connecticut Historical Commission
(State Historic Preservation Office)
59 South Prospect Street
Hartford, CT 06106
Phone: 860-566-3005, Fax: 860-566-5078
E-mail: dave.poirier@po.state.ct.us

Dr. Nicholas Bellantoni
Office of State Archaeology
3107 Horsebarn Hill Road, Box U-214
University of Connecticut
Storrs, CT 06269-4214
Phone: 860-486-5248, Fax: 860-486-0827
E-mail: NBELL@uconnvm.uconn.edu
www.mnh.uconn.edu