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Water Rights in Rhode Island, 1790-1840: The Commodification of the Landscape

. . . And to the end that rivers and streams of water may be improved and made as useful to the public as possible . . .

—Rhode Island General Assembly, Act for Regulating Water-Mills, 1734

In 1826 John Audubon, peripatetic observer of the American landscape, mused about the transformation of nature that he found developing around him. In a hundred years, he wrote in his journal, the water and land forms “will not be here as I see them. Nature will have been robbed of many brilliant charms, the rivers will be tormented and turned astray from their primitive courses, the hills will be leveled with the swamps, and perhaps the swamps will have become a mount surmounted by a fortress of a thousand guns.” Although Audubon surely did not expect a static world, his view of a declensional natural world reflected what he and others observed around them as the market revolution of the early nineteenth century grew explosively. Audubon’s view of nature valued “intrinsic” worth, an outlook that appreciated nature without assessing how useful it might be to humans. “Instrumental” values, on the other hand, focused on the utility of land and water for meeting various economic needs.

In Rhode Island—indeed, throughout America in the late eighteenth and early nineteenth centuries—few people had the luxury, the motivation, or the inclination to view the landscape in intrinsic terms. A newly born nation, a competitive world marketplace, the uncertainties of launching a struggling economy, accumulated debt, and a bountiful land whose national boundaries doubled in 1803 all made it easy and reasonable to focus more on production and commodification than on the intrinsic value of nature. Rhode Island was a full participant in the trend to minimize intrinsic natural values and to maximize instrumental worth. At the same time, a subtle riparian dance evolved in the state. During the eighteenth century, waterpower was generally regulated to promote the communal interests of an agrarian economy. In the early nineteenth century, however, such interests were increasingly subordinated to the rights of private property, and claims to the use of water, asserted by industrialists. The contentious disputes over water rights in Rhode Island mirrored these riparian struggles among farmers and millers, and eventually among established and emerging industrialists of the new century.

With the onset of industrial development came a missed opportunity to configure different assumptions about the environment surrounding the hum and rhythm of economic activity, both agricultural and industrial. Agriculture in the eighteenth and nineteenth centuries modified and transformed the land in ways that romanticized views of nature have underemphasized, but it was industrialism that far more radically recast existing connections with the land and water. “The industrial revolution reworked the earth’s landscape, altering the foundations of a society based on agriculture and placing it on the road to modern economic development,” writes Theodore Steinberg. “Humankind’s
relationship with the natural world was profoundly affected. . . . The industrial revolution was part of a tremendous ecological restructuring, a new and significant chapter in the earth's environmental history." Steinberg adds that by the mid-nineteenth century—"it was apparent earlier in Rhode Island—"the legal system also changed, encouraging the manipulation of water for greater energy and profits. Those developments were a part of the long process whereby nature was increasingly conceived as discrete bundles of commodities—of wood, land, and water. The industrial revolution had redefined the environment; it was now a vast 'natural resource.'"

In colonial times, Massachusetts (in 1713) and Rhode Island (in 1734) enacted legislation whose initial purpose was not only to provide some regulation of water use but also to encourage the development of sawmills and gristmills. A productive agricultural community needed both of those enterprises, although the mill owners' control over water hampered farmers in two ways: First, dams could, and often did, restrict fish migration, thus depriving farmers of a free—and, for many, an important—food supplement. Second, millponds sometimes overflowed agricultural land. The common-law solution for such a nuisance as posed by these dams was simply to abate it, and that usually meant destroying the dam. Many instances were recorded of New England farmers doing just that, using their bare hands, iron pikes, or black powder.

Dams obviously imposed restrictions on the formerly unimpeded flow and use of New England rivers. Flooded hay fields and other cropland, restrictions on navigation, upstream impoundment of water thus made unavailable for downstream users, and, especially, constraints on fish migration all led to disputes. What is particularly notable, at least prior to about 1792, is that in the conflict between farmers and mill owners, colonial governments from the start supported the millers. The purpose of the mill acts was not so much to regulate the mills and their water manipulation or consumption but rather to save them from the revenge-minded farmers whose common-law recourse was legally supported dam destruction. Gary Kulik notes that Rhode Island's Mill Act of 1734 allowed millers to flood land "without any Molestation" beyond a court-imposed penalty to be paid for that action. Thus mill owners in early- to mid-eighteenth-century Rhode Island received "a form of eminent domain, sanctioning the enforced loan of privately held land. The Rhode Island Act was an exclusive remedy, prohibiting any common-law actions, whether for trespass or nuisance." Early legislation such as this clearly promoted communal interests rather than the interests of individual farmers.

Greater restrictions were placed on mills when fish were involved, however. As early as 1719 the Rhode Island General Assembly noted that any "obstructions" to fish migration should be prevented, and immediately after the passage of the Mill Act of 1734 the Assembly required dam owners to install fishways to assist migrating fish. But Rhode Island's practice tilted toward the interests of the millers even on this issue. "Rhode Island industrialized rapidly as compared with Connecticut partly because it acted earlier to relax the laws requiring dams to be kept open to enable fish to reach their spawning grounds." Peter Coleman observes. "These laws were burdensome, especially in summer, because they forced manufacturers to release water during the period when they needed all the storage capacity they could get."

It should be noted, however, that although millers were generally encouraged by legislative action and "enjoyed a preferred status," the law also restrained them from outrageous manipulation of water supplies, and their sawmills and gristmills clearly served their local agrarian communities. According to Daniel Vickers, farmers, for their part, became
more or less content with "competency"—means sufficient for their needs—without the vast acquisitiveness characteristic of nineteenth-century industrialists. Both riparian farmers and mill owners in fact represented "integral parts of a single and largely undifferentiated economy"; and with economic hopes and visions that were not entirely dissimilar, both viewed the landscape instrumentally.

Two important developments, evident by the early nineteenth century, signaled dramatic changes in the delicate dance in which Rhode Island’s riparian farmers and millers had participated. One involved the legislature’s slowly but steadily increasing support for the needs of mill owners. The effect of this support was to transform the environmental conflict over water from a struggle between farmer and mill owner to one in which industrialists contended against each other, a struggle in which farmers were largely marginalized. The second development involved a changing understanding of property rights and the related view of the land.

Geographic and economic conditions favored the expansion of mill production in Rhode Island, especially as the technology of textile manufacturing developed in southeastern New England. Among other factors, a climate humid enough to ensure that yarn fibers did not break when spun, the short but rapidly descending Blackstone River, sufficient capital to support industry derived from mercantile entrepreneurs, and an available inexpensive workforce all contributed to industrial expansion. Rhode Island’s post-Revolutionary government, like its colonial one, continued its laissez faire approach to industrial activity despite the problems of flooded lands, waste products and dyes drained into rivers, and problematic working conditions. Yet, prior to the turn of the century, the General Assembly did not overtly promote, and only infrequently subsidized, the developing industries. Moses Brown, an early textile financier, complained in a letter of 1791 that "No encouragement has been given [to manufactures] by any Laws of the State nor by any Donation of any Society or Individuals but Wholey began and Carried on and thus far perfected at Private Expence." Brown’s complaint proved a bit premature. The following summer the state in fact entitled Brown to special protection from restrictions on dams, an entitlement that came at the expense of the preexisting rights of a gristmill at Pawtucket Falls. To provide power for the new textile factory that was to become Slater Mill, Brown financed construction of a dam ("arguably the largest yet built in America," according to Gary Kulik) about a hundred yards upstream from the gristmill’s dam, thus depriving the latter of some of the flow it had previously enjoyed unimpeded. The
owners of the downstream rights (blacksmith brothers Stephen and Benjamin Jenks and a miller named Bucklin) not only publicly protested and initiated a legal complaint; they took even more aggressive action. In late August, when the river's flow was presumably low already, they physically attacked and partially demolished Brown's dam, an act for which they took full public responsibility. Relying on their common-law right to abate a nuisance, they subsequently won their legal case on the grounds that the Slater Mill dam unfairly restricted the traditional flow of water to their downstream mill privilege.

Neither the attack on his dam nor the court ruling deterred Brown, who financed the rebuilding of the dam even before the case was heard. In response, his adversaries raised the height of their own downstream dam, creating a backflow toward Brown's waterwheel and impairing its operation. Meanwhile, all this dam building and enlarging was hindering the river's migratory fish, and local farmers now added their own complaints to the conflict. In what was perhaps the farmers' last successful water-rights clash with mill owners, the Assembly agreed to appoint a committee to investigate the absence of fish ladders and the dams' obstruction of the river. Ostensibly to facilitate fish migration, in March 1793 the committee directed the older dam's owners to remove twenty inches that they had added to their dam, but a month earlier the same committee had exempted the Slater Mill dam from any regulations whatsoever. However aggrieved Moses Brown may have been at the legislature's failure to "encourage" industry, his position of influence in the community and his status as a former legislator must surely have encouraged the Assembly to grant his own industrial enterprise special favors. Yet the preferential treatment he received foreshadowed the favor that the new industrialists would come to expect from the state's lawmakers.19

Also presaged by this preferential treatment was the related nineteenth-century trend toward defining property rights in new ways. "As the spirit of economic development began to take hold of American society in the early years of the nineteenth century," notes Morton Horowitz, "...the idea of property underwent a fundamental transformation—from a static agrarian conception entitling an owner to undisturbed enjoyment, to a dynamic, instrumental, and more abstract view of property that emphasized the newly paramount virtues of productive use and development." It was in the conflict occasioned by the considerable dam construction at the turn of the century, claims Horowitz, that "the antidevelopmental doctrines of the common law first clashed with the spirit of economic improvement."20

That aggressive spirit stood in sharp contrast to the more modest eighteenth-century notions of economic competency. By the early nineteenth century there was a profound shift away from support for overall communal interests. Laws that had protected water rights for sawmills and gristmills and limited agrarian retaliation against dam builders, all in the service of promoting communal interests, were reconfigured to support the efforts of acquisitive industrialists to claim those rights for the purpose of private gain.

To some degree these changes were a reflection of the growing economic and political power of emerging businessmen, but they may also have reflected a willing complicity among farmers. While they likely understood and deferred to the power industrialists could and did wield, farmers also stood to gain from a new economic order that brought them certain important benefits: an augmented market for farm production to feed the workers; the opportunity for farm children, especially girls, to find nonagricultural employment near their homes; the construction of turnpikes (initiated in the 1790s) and canals (beginning around 1815) that allowed an easier flow of agricultural goods to wider domestic markets.21

But the rise of the new industry also reflected a diminished role for farmers in environmental and economic decision making. This was seen in Rhode Island in the contention
over the creation of the Blackstone Canal, a forty-five-mile waterway that extended north from Providence through the Moshassuck and Blackstone River valleys to Worcester, Massachusetts. Before construction of the canal began in June 1825, the project faced strong organized opposition—opposition that came not from farmers but rather from the owners of existing mills around Pawtucket. Their fear was that the canal’s use of water from the river would adversely affect what they had come to assume—and properly so, in the light of legislative actions—were their protected mill privileges and water rights. While factory owners were not averse to challenging each other for greater access to and manipulation of flowing water, in this case their concerns were directed against the projected canal.

The canal’s developers quickly realized the need to mollify mill owners and the legislature, and they accordingly established a larger number of reservoirs than had initially been proposed. This supplemental water supply replaced river water diverted into the canal and away from mill operation. The power of the mill owners over water rights, as expressed in legislative enactment chartering the canal, was considerable: not only did the canal operators risk a fifty-dollar penalty for improper diversion or insufficient replacement of water, but they also had to replace diverted water within one hour or be fined. Mill owners sought to maintain their environmental control even as the canal neared its demise in the 1840s. By then it had become a losing proposition for the company that owned it; but ironically, with industry having expanded substantially along the upper Blackstone, mill owners now opposed the efforts of the canal company to dissolve itself. The capacity and power requirements of the factories had grown, and their reliance on the canal’s system of reservoirs, dams, and associated waterways for regulating the river’s flow had increased proportionately."
One outgrowth of the American Revolution evident by the end of the eighteenth century was the unleashing of what Allan Kulikoff has called "possessive individualism." For energetic businessmen, like those of Rhode Island, economic activity now "meant freedom to make binding contracts and to use property as they saw fit, even at the cost of disturbing the rights of other residents or traditional common rights to unimproved land or water." A new social equilibrium had developed; and while farmers were left to reconsider their economic options, the new industrialists, redrawing the political balance in their own favor, claimed the water rights that traditionally had supported communal interests.

Several factors combined to increase cotton mill production significantly during the early decades of the nineteenth century. Contrary to Jefferson's hopes for a thriving agrarian republic, the Embargo Act of 1807 spurred domestic industrial production when foreign markets were unavailable because of statute or warfare. A 25 percent protective tariff in 1816 also assisted domestic manufacturing. The acceptance of the power loom dramatically increased the number of factory spindles in motion fifteen years into the century. Steam power, first used in Providence by Samuel Slater in 1827, only accelerated the process. As this rapid growth in production occurred, there was naturally an increased demand on available water resources. And as Paul Gilje notes, during the 1820s and 1830s the legislatures of many states—and this included Rhode Island—were "so inundated with petitions for incorporation that they passed laws of general incorporation that sidestepped the questioning of public good." Under these conditions, appropriating more water than one was legitimately entitled to, or creating a backwater that hindered the operation of upstream waterwheels, became increasingly common practices among mill owners.

The Rhode Island case of Tyler v. Wilkinson, initiated in 1826 and decided by U.S. Supreme Court associate justice Joseph Story the following year, involved the lengthy and contentious disputes among mill owners adjacent to Slater Mill. In the early 1790s a sluiceway, named Sargent's Trench for its excavator, provided an unobstructed channel for fish to pass upstream of Pawtucket Falls. Later, as mills were constructed at and above the falls, the trench became a flume that provided power to a variety of enterprises. The plaintiffs controlled a dam below the sluice gate at the trench's upstream opening; the defendants owned the water rights on the trench. The keeper of the sluice gate, mill owner Oziel Wilkinson (the father of defendant Abraham Wilkinson), had been regulating the flow of water into the trench since 1796. Although there had been agreements between mill owners on the trench and mill owners on the river as to how much water could be diverted into the trench and how much was to continue "naturally" downstream, disputes continued, and the owners eventually sought a judicial resolution of the conflict.

Justice Story found in favor of the defendants, accepting their argument that they were entitled to as much of the river's flow as the trench had enjoyed prior to 1796. At the same time, however, he also theoretically supported Tyler's claim to the "right to use of the water . . . in its natural current, without diminution or obstruction." As Morton Horowitz observes, Story "seemed to perceive [the] harsh antidevelopmental tendencies of his opinion, and he attempted to qualify its rigor. . . . Some 'diminution in quantity, or a retardation or acceleration of the natural current' is permissible [said Story] if it is 'not positively and sensibly injurious.'" Horowitz notes that "Tyler is cited more often during the second quarter of the nineteenth century to support than to condemn the reasonableness of a mill's interference with the flow of water." It may also be noted that Story's decision did not definitively resolve the specific issue involved in the Tyler case,
which lingered on for another decade until engineers calculated the flow of the river and each mill owner received some sixteenth part of that flow.\footnote{2}

Contestation over the availability of water for industrial use—but not agrarian protest—continued in the 1830s. An October 1835 petition to the General Assembly by Thomas Phillips and fifteen others sought legislative recognition for the water rights of mill owners deprived of the full natural flow of a stream's water by upstream dams. Phillips's petition sought an increase in the time during dry seasons when the waste gates of mills (through which impounded water was discharged) had to remain open, an increase “sufficient to vent so much water as naturally runs in [a] river and said undersigned would represent that said act [the Mill Act of 1734] was intended and made to afford relief to mills situated down on a river within one mile of another mill.”\footnote{26} The petition was successful; the Assembly voted that the gates had to be opened from 1 May until 1 December, rather than from 26 June to 26 October. The matter was either so trifling or so uncomplicated that the Providence Journal's legislative report mentions the affirmative vote in one brief sentence.\footnote{27}

But the new regulation did not long remain on the books. On 27 January 1836 Hollis H. Jenckes filed a counterpetition, which was referred to the Assembly's Judiciary Committee and approved by the Assembly on 3 February. Legislative journals provide no explanation; there is only a one-line statement that it was “Passed at the October session, 1835 . . . that said act [regulating the waste gates of mills] be and the same is hereby repealed.”\footnote{28} As a mill owner apparently harmed by the regulation, Jenckes seems to have been disinclined to tolerate such interference with his use of the water supply or to improve the competitive position of other mills. By this time fish migration and flooded agrarian land were no longer issues in Rhode Island; the contest was among mill owners aggressively seeking commodities, including water, for profit.

By 1838 legislative actions made the struggle among industrialists for control of water even more evident. Since October 1831 there had been an ongoing attempt to amend the flowage laws; the General Assembly had tabled a proposed new act and listed it in its catalog of “unfinished business” seven times before the subject of flowage was finally “stricken off” on 3 May 1838, by which time the legislature had at last begun dealing with it.\footnote{29} Peter Coleman particularly notes the Assembly's 1837 refusal “to restrict the scope of the statute [the Mill Act of 1734, which allowed mill owners to flood land upstream from their dams] to grist- and sawmillers.” By that refusal, says Coleman, the legislature “indirectly sustained the underlying proposition—that industrialization served the public interest and that the needs of manufacturing took precedence over the property rights of farmers and other landowners.”\footnote{30}

In a related action, an attempt to repeal the first section of the Mill Act of 1734 was introduced into the Assembly on 17 January 1838, tabled on 3 February, and then postponed to the next legislative session several months hence. The section in question gave mill owners “free liberty to continue and improve the pond or ponds in [their] land for their best advantage, without any Molestation,” and while it allowed an “action of debt” for yearly damages to be brought by a complainant harmed by that improvement, it permitted no other recompense.\footnote{31} The repeal of this restriction on damages that could be awarded would have benefited farmers who lost crops when their land was overflowed, but the main impetus for the repeal attempt most likely came from newer industrial mill owners who were battling the established owners over rights to waterpower. On 20 June the attempt at repeal was rejected in the House by a twelve-vote margin, 38-26. Among those opposed were members whose names, like Almy and Brown, reflected the generation of established industrial mill owners.
An amendment of the law was passed by the House three days later. In contrast to the failed attempt at repeal, the legislature now reaffirmed the "sufficient bar against an action to be brought for any damages occasioned by the flowing said land . . . save and an action of debt." Scribbled notations in the House's handwritten journal afford insight into legislative intent, for the Senate made two significant changes in the wording of the House enactment. In the first section it added the words "already erected" in referring to the mill dams whose owners could face no more than "an action of debt" for any damages the dams might cause; here the word "future" was added to the reference to the dams that might cause such damage. This change was likely directed against upstart industrial competitors who might erect dams that could flood land or, worse, harm existing dams by restricting the flow of water to them or causing backflows. As stipulated in this second section, juries would not only determine actual damage to land; "all the incidental injury to the rights and privileges of the party complaining shall be fully estimated [including] all the loss of any fall or descent of water." Both these additions, and the requirement in the first section that the plaintiff pay the "cost of the jury" should it find in favor of the defendant, likely chilled the temptation to sue or to harm established industrialists, while the provisions simultaneously embraced an instrumental understanding of water use.

However, by 1844 the legislature had enacted two statutes with the potential to discourage flagrant misuse of natural resources. First, the enactment of 23 June 1838 stipulated that a person whose land—or, implicitly, whose mill privilege—was damaged could be awarded the yearly damages for a period of five years after the land was no longer overflowed by a mill owner. Second, a redrafting of a much-amended mill act in 1844 clarified state law prohibited a dam owner from "detaining a natural stream . . . at any one time, more than twelve hours out of twenty-four hours, except on Sundays, when he shall be requested by the owner of any dam within one mile below on the same stream to suffer the said natural run of said river or stream to pass his said dam." But whatever merit these statutes may have had, it was clear that Rhode Island lawmakers "nature" in instrumental terms, and that the state had long since abandoned its support of using waterpower for communal purposes.

Although the water-rights disputes of the nineteenth century have faded, the conflict over dams has not. In July 1999 the United States government ordered, and then presided over, the demolition of a dam on the Kennebec River in Maine. The dam had impeded fish migration in the river since 1837, and fish now began returning upstream of the former obstruction. But despite Riverside celebrations led by ecological activists and joined by the secretary of the interior, some environmental groups were questioning the decision to eradicate an ecosystem that had existed for some 160 years. Meanwhile, plans were in progress to bring hundreds of other nineteenth-century dams under increased levels of governmental scrutiny, an action designed to reexamine the instrumental uses of nature. While the Kennebec River dam was being demolished, Interior Secretary Bruce Babbitt cautiously noted that he was not advocating the removal of "all, most, or even many dams. But this is a challenge to dam owners and operators to defend themselves, to demonstrate by hard facts, not by sentiment or myth, that the continued operation of a dam is in the public interest, economically and environmentally."


14. Kulik, "Dams, Fish, and Farmers," 42. The dam was two hundred feet long and six or seven feet high. See also Robert Grieve, An Illustrated History of Pawtucket, Central Falls, and Vicinity (Pawtucket: Pawtucket Gazette and Chronicle, 1897), 104-15.

15. The episode of the competing dams is recounted in Kulik, "Dams, Fish, and Farmers," 42-44.


19. Ibid., 55-56.

20. Ibid., 58.


22. Coleman, Transformation of Rhode Island, 108. The state's cotton industry grew from 25 mills, with 14,696 spindles, in 1809 to 126 mills, with 237,978 spindles, in 1832. Ibid., 86, 87, 93, 220.

23. See Hunter, Waterpower, 1-139-55.


28. Thomas Phillips et al., petition 46, microfilm reel 61, Rhode Island State Archives.


31. The "bill related to flowage ascertaining its bounds" was noted as unfinished business in the Journal of the General Assembly in October 1831, January 1832, June 1836, October 1836.
Railroad Development in Rhode Island during the Nineteenth Century

Railroad development got under way in Rhode Island shortly after the first scheduled passenger service in the country began in Charleston, South Carolina, in 1830. Rhode Island owed the early arrival of the railroad within its borders to its location along one of the main routes of travel between Boston and New York. Until the early 1820s the entire trip was made by stagecoach and consumed the better part of two days. With the establishment of steamboat service between Providence and New York in 1822, Providence became the principal gateway for travel between Boston and New York. The journey began with a five- or six-hour stagecoach ride between Boston and Providence, where travelers boarded a steamer for the overnight voyage to New York.

A number of the early railroads along the eastern seaboard were built primarily as feeders for steamboat lines. Such was the case with Rhode Island’s first two railroads, the Boston & Providence and the New York, Providence & Boston. By the late 1820s proposals were under consideration for expediting the trip between Boston and Providence by constructing a railroad between the two cities. The act of incorporation for the Boston & Providence Railroad was approved by the Massachusetts legislators on 21 June 1831.

The Boston & Providence line was placed in service incrementally as construction proceeded toward Providence. Trains began running between Boston and Dedham in June 1834, and the railroad reached Canton by mid-September of that year. “We are informed by passengers on the Boston stage yesterday,” the Providence Journal noted on 13 September, “that the cars came over the fifteen miles of rail road now completed, in thirty-two minutes.”

From Canton, passengers were transported to Providence by stagecoach while construction continued on the remainder of the road and on the monumental Canton Viaduct over the Neponset River ravine (an engineering landmark that has been in use now for more than 165 years). One of the connecting stage lines advertised “Unrivalled Expedition by elegant safety coaches and splendid Rail Road Cars . . . via Foxboro, the shortest and most level route to Canton—thence by rail road Cars . . . to Boston—through in 4 hours.”

The first trip over the entire road was made on 2 June 1835. This was a special trip by invitation of the directors to show off the road to “a party of gentlemen,” some of whom had come from New York for the occasion. Since the Canton Viaduct was still under construction, two trains had to be used, one between Providence and Canton and another from there to Boston. The train between Providence and Canton was to have been pulled by a new engine that had arrived by boat from Philadelphia the previous day, but unfortunately “some of her pipes were not in order,” according to the Providence Journal, and horses had to be substituted for the first part of the journey. The trip was interrupted twice by mishaps involving the horses, one of whom ended up “directly under the car, but was extricated without receiving any other injury than a few excoriations of the shins . . . By this time, it seemed unanimously resolved, that steam

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power was altogether safer, in the propulsion of railroad cars, than horse power, especially for the horses."

The trip from Canton to Boston was made behind steam in about forty minutes. The guests were taken to the Tremont House for dinner and were entertained during the evening at the home of the railroad’s president. The return trip the following day was made without incident. The Journal concluded its account of the excursion by noting that the new engine was now in operation and had made several trips over the southern division of the road.

When the road between Providence and Canton was opened to the public on 15 June, through passengers between Providence and Boston were still transported around the unfinished Canton Viaduct by horse-drawn conveyance. The opening of the viaduct on 28 July was reported in the Providence Journal the following day: “We are happy to announce the completion of this great work. A train of cars came over the road yesterday with the locomotive Whistler, in one hour and forty-five minutes, the rails having been laid on the viaduct at Canton."

While a railroad bridge was being constructed over the Seekonk River, the trains used a temporary terminal on the river’s east side, from which passengers were conveyed to and from Providence and the steamboat wharves by an omnibus. After the bridge was completed, the trains began using the railroad’s India Point terminal, which was located adjacent to the steamboat wharves.

Freight service commenced on 21 September, when the railroad began carrying “merchandize” at the rate of twenty-five cents per one hundred pounds, with certain exceptions (among them were straw bonnets, for which the rate was twenty cents per case). According to advertisements in the Journal, “Articles deemed by the company extra bulky or extra hazardous, [were] taken by special contract only.” On 11 December the railroad began carrying mail between Providence and Boston twice a day, as well as handling the mail to and from Boston that was transported between New York and Providence by steamboat.

The success of the Boston & Providence was evidenced when its directors declared a dividend of 4 percent after the railroad had been fully operational for less than six months.4

Although the railroad was a welcome replacement for the tedious and uncomfortable stagecoach ride, travelers on the New York boat often experienced considerable discomfort when the steamer passed through the open water between the mouth of Narragansett Bay and the entrance to Long Island Sound. According to one account, “the passengers did not always feel like eating just after the boats struck the long swell off Narragansett Pier.” (“But if they could not eat,” the writer continued, “they could usually drink and the decanters stood close together down the long table.”)5 A remedy for this unpleasantness, in the form of a railroad between Providence and Stonington, Connecticut, was in progress even while the Boston & Providence was still under construction. At Stonington, New York-bound travelers would be able to board a vessel whose route lay entirely within the calmer waters of Long Island Sound.

Although the Stonington Railroad, as it was popularly called, was only 47 ½ miles long, its official name, the New York, Providence & Boston, gave the impression that its tracks covered the entire distance between those cities. Perhaps the New York investors who had financed the road hoped that it might eventually reach New York, although the prevailing opinion at the time was that a railroad could never be built along the Connecticut shore because of the many rivers, inlets, and marshes that would have to be crossed. But the road did spare travelers from Boston a sometimes unpleasant steamboat passage on their way to New York, and to that extent the name was justified.

The opening of the road on 10 November 1837 was celebrated with much festivity. A delegation of a hundred or more, including the president and directors of the railroad, came up from New York on the steamer Narragansett. They were welcomed to Stonington by the firing of cannon, following which “a procession was formed, and with banners flying, they marched with appropriate music to the spacious newly erected public house,” which had been built by the railroad, where they “partook of a most excellent breakfast. . . . Subsequently the company left in two trains of superb cars, handsomely decorated with miniature American flags, the band playing many spirit stirring airs, and by means of the locomotives Stonington and Little Rest, they sped rapidly over the course on the way to Providence.”6

At Providence the celebrants were joined by additional guests for the return trip to Stonington. That trip was “accomplished in two hours and twenty-five minutes, which, considering the newness of the road, the little trial that had been made of the engines,
Designed by Brown University student Thomas A. Tefft, Providence’s Union Passenger Depot was the largest passenger station in the country when it opened in 1848. Lithograph, 1857. RIHS Collection (RHi X3 378).
&c. &c. was remarkably expeditious.” When the party arrived back in Stonington, a supper for over four hundred was served, following which “numerous sentiments were called forth.” Among the most apt was that of the otherwise unidentified Jacob S. Carpender, who proclaimed, “Our forefathers refused to pay tribute to Great Britain in former days; who will consent to pay tribute in this enlightened age to ‘Point Judith’ [then noted for its turbulent waters], when they can travel the Stonington Rail Road?”

At first the trains ran only three times a week and stopped only at East Greenwich, Kingston, and Westerly. By the spring of 1838 there were two trains in each direction on weekdays: the “Steamboat Train,” which connected with the New York boat, and the “Accommodation Train,” which handled the local business. When the latter was added to the schedule, the Providence Journal noted that it would also stop at Apponaug, Wickford, and Charlestown to “land” and receive passengers. The road’s Providence terminal was located on the west bank of the Providence River opposite the Boston & Providence’s India Point terminal, and a ferry enabled passengers to transfer between the two roads. For a number of years the trains had to be hauled from the Stonington town line to the steamboat wharf by horses, as the town had passed a law while the railroad was under construction prohibiting the operation of steam locomotives within its borders.

Providence began to attain importance as a railroad center with the 1847 arrival of the Providence & Worcester Railroad and the road’s completion the following year of the largest passenger station in the country. The Union Passenger Depot was constructed on filled land on the south side of the Great Salt Cove (in the middle of the present Kennedy Plaza). With both the Boston & Providence and the New York, Providence & Boston rerouting their approaches to Providence in order to reach the new facility, the depot was also one of the country’s first union stations, serving all three of the city’s railroads. Passengers could now travel from Boston to Stonington without changing trains. Constructed from plans by architect Thomas Tefft while he was still a student at Brown University, the Union Passenger Depot was voted one of the best-designed buildings in the country after it had been in use for thirty-seven years.

The Providence & Worcester served the heavily industrialized Blackstone River corridor and soon replaced the Blackstone Canal, which had been in use for only twenty years. Not only were the trains faster than the canal boats, but the railroad did not freeze over in winter or suspend operation for lack of water during dry summers. At Worcester, the Western Railroad (later the Boston & Albany) provided the Providence & Worcester with a potentially profitable connection with the West.

Trains began running between Providence and Hartford over the Hartford, Providence & Fishkill Railroad in 1854. The ultimate destination of this line was the Hudson River and a connection with the New York & Erie Railroad, with which it expected to interchange a substantial volume of freight to and from the West. By the time it finally reached the Hudson in 1881, the road had become part of the New York & New England Railroad, which eventually became one of the major systems in the region.

The first railroad to serve the East Bay area, the Providence & Bristol (later the Providence, Warren & Bristol), began operation in 1855. From Bristol, passengers could reach Aquidneck Island by ferry. In 1865 the Fall River, Warren & Providence Railroad opened its line from Fall River to Warren, where it connected with the Providence, Warren & Bristol, thereby providing a rail route between Providence and Fall River. Fall River was reached by ferry from Brayton Point in Swansea, on the northerly side of the Taunton River, until a bridge over the river was opened in 1876.
A proposal for building a railroad from Fall River to Newport was welcomed by residents of Aquidneck Island but was strongly opposed by Fall River interests, who feared that the status of their city would be reduced to that of a way station between Boston and Newport. The Rhode Island General Assembly chartered the Newport & Fall River Railroad in 1846 and approved its construction from Newport to the Massachusetts state line, but Massachusetts withheld approval of construction on its side of the border for a number of years.

The venture had the backing of the Old Colony & Fall River Railroad, which wished to move the terminus of its affiliated Fall River Line of steamers from Fall River to Newport, thereby shortening the overnight boat trip to New York. On 5 August 1863 the stockholders of the Old Colony & Fall River and the Newport & Fall River approved a merger of the two companies, and the railroad between Fall River and Newport was built by the Old Colony & Fall River as its Newport Extension. Upon completion of the road, the name of the merged companies was changed to the Old Colony & Newport Railroad.

The first train reached Newport on 1 February 1864. The railroad bought a new locomotive to run between Fall River and Newport and named it Extension, a gesture that some residents of Fall River—now deprived of its steamboat terminal—regarded as an act of spite. The terminal was moved back to Fall River following a change in the boat line's ownership in 1869, although the boats continued to stop at Newport.

Trains had begun operating over an all-rail route between Boston and New York with the completion of the New York & New Haven Railroad in 1849. These trains did not pass through Rhode Island, however, as the tracks that crossed the state extended only from Boston to Stonington at this time; instead, the trains ran over an inland route by way of Springfield and Hartford. Another ten years passed before Rhode Island travelers could reach New York over the route that became known as the Shore Line.

In 1859 the Shore Line route between Boston and New York required travel over the tracks of five different railroads, including, within Rhode Island, those of the Boston & Providence and the New York, Providence & Boston. Although through passengers were able to complete the trip without changing trains, the cars had to be ferried across the unbridged Thames and Connecticut Rivers. Since this was a time-consuming operation, most Boston-New York trains continued to bypass Rhode Island and use the inland route through Springfield and Hartford. After traveling on a Shore Line train on his second visit to the United States in 1867, Charles Dickens penne an account of his disconcerting experience at one of the river crossings:

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 of these crossings yesterday, we were banged to 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 one or two others with me, but nobody else seemed to care about it.\(^{11}\)

A bridge over the Connecticut River was completed in 1870, but the ferry across the Thames River between Groton and New London was not replaced until 1889. The Thames River Bridge was built by the New York, Providence & Boston Railroad, whose rails had been extended to Groton in 1864 when it purchased the tracks of the bankrupt New Haven, New London & Stonington Railroad between Stonington and Groton. With the opening of the bridge—at the time the largest steel drawbridge in the world\(^ {10}\)—the Shore Line, with its virtual absence of grades, became the primary through rail route between Boston and New York. This development had a significant effect on Rhode
Island railroads, as it was instrumental in bringing the New York, New Haven & Hartford Railroad to Rhode Island.

The New Haven, as it was commonly called, was created in 1872 by a merger of the New York & New Haven and the Hartford & New Haven Railroads. The New Haven adopted a strategy of eliminating competition both by acquiring competing roads and by preventing the construction of new lines that might threaten its interests. Eventually this strategy resulted in the integration of virtually all the railroads of southern New England into the New Haven system. In 1887 the New Haven owned 450 miles of track. By the end of the nineteenth century the tracks of the Monopoly, as it was sometimes called (the Providence Journal called it the Connecticut Octopus), had grown to 2,047 miles.12

The New Haven was especially desirous of obtaining access to Boston over its own rails instead of being dependent on trackage rights over other roads. The first step in this direction had actually been taken before the formation of the New York, New Haven & Hartford when the New York & New Haven extended its rails to New London in 1870 by leasing the Shore Line Railroad.13 The New Haven deferred its next move toward Boston until after the New York, Providence & Boston had built and paid for the Thames River Bridge; then its leasing of that line in 1892 extended the New Haven tracks to Providence. The lease brought the eminent financier J. Pierpont Morgan, a director of the New York, Providence & Boston, to the New Haven’s board of directors, and he would soon become its dominant member. The lease also brought the Providence & Worcester Railroad, which the New York, Providence & Boston had leased in 1888, under New Haven control.

With the leasing of the New York, Providence & Boston, the New Haven advanced to within 44 miles of its goal. Those 44 miles were controlled by the Old Colony Railroad (Newport had been dropped from the road’s name in 1872), which, anticipating that the New Haven would eventually need to acquire the Boston & Providence as the final step in extending its rails to Boston, had leased that line in 1888, gaining a strong position for the negotiations that were to follow. In 1893 the New Haven leased the Old Colony’s entire 600-mile system, most of which was situated in southeastern Massachusetts, in order to gain control of the vital 44 miles of track between Providence and Boston.14 The terms of the lease were advantageous for the Old Colony, but they proved to be a financial drain on the New Haven in later years.

The New York & New England Railroad was incorporated in 1873, a year after the formation of the New Haven. The road (hereafter referred to as the New England) was formed during the reorganization of the Boston, Hartford & Erie Railroad, whose scandalous financial mismanagement had led to insolvency in 1870. Despite its recurrent financial problems, the New England managed to cobble together a system that reached most of the major cities of southern New England, including Providence. The relationship between the New England and the New Haven was complex, and it degenerated from cooperative to adversarial once the New Haven began taking steps to gain control of the New England, which had become its principal rival.

Among the railroads included in the New England system at the time of its formation was the Hartford, Providence & Fishkill, work on whose projected extension to the Hudson River had come to a halt at Waterbury, Connecticut, in 1855 owing to a lack of funds. (Future Rhode Island governor William Sprague, the president of the road at the time, was covering its losses through loans from the A & W Sprague Investment and Banking Company, his own firm.) The Boston, Hartford & Erie, which operated the
Hartford, Providence & Fishkill during the latter half of the 1860s, resumed work on the Hudson River Extension but failed to complete it before going bankrupt. The extension was finally finished in 1881 by the New England, which built a huge steam ferry to transport freight cars across the Hudson between Fishkill Landing and the Erie Railroad’s terminal at Newburgh.

The New England’s main line, which originated at Boston, did not pass through Rhode Island, although a short connection to Woonsocket enabled some main line trains to serve that city. The New England’s principal route in Rhode Island was the line between Providence and Willimantic, Connecticut, 26 miles of which were within Rhode Island. Originally the eastern end of the Hartford, Providence & Fishkill, this route joined the main line at Willimantic and was known for a time as the Providence Division.

The New England’s other Rhode Island routes were located in the northern part of the state. In 1877 it began operating trains between Providence and Boston over its Providence Extension. These trains traveled over the Providence & Worcester from Providence to Valley Falls, where they switched to the tracks of the Rhode Island & Massachusetts, a 14-mile road connecting at Franklin, Massachusetts, with the New England’s main line to Boston. Since the Rhode Island & Massachusetts did not own any rolling stock, it entered into an agreement with the New England for the operation of its road.

The New England intended to build its own line from Providence to Valley Falls, but those plans were never realized, and the 6-mile gap between Providence and Valley Falls continued to be covered by trackage rights over the Providence & Worcester. Although the New England’s Providence-Boston trains were in competition with the established Boston & Providence route, they seem to have had little effect on the latter’s business, perhaps because the New England’s route was somewhat longer and the trains ran less frequently. "It is a rather pathetic commentary on the traffic of this route," observes a history of New England railroad systems, "... that it is not once protested against in the annual reports of the Boston & Providence Railroad, in whose traffic it should have made some noticeable shrinkage.”

On 11 August 1873 the Providence & Springfield Railroad began service between Providence and Pascoag. Chartered in 1857 as the Woonasquatucket Railroad, it changed its name in 1871 to publicize its intention of extending its rails beyond the borders of Rhode Island. Its original plan was to reach Springfield over the tracks of the Boston & Albany Railroad by means of a connection at Palmer, Massachusetts, but the road was unable to acquire the financial resources to carry out this plan. The Providence & Springfield had not advanced its rails beyond Pascoag when it was leased by the New England in October 1890.

When the most desirable route for the Providence & Springfield was being decided during the 1860s, a committee appointed to study the possibilities recommended that the road pass through Woonsocket rather than through Pascoag, as originally proposed. Although the route through Pascoag was chosen, a branch from North Smithfield to Woonsocket was to have been built as soon as the main line reached Pascoag; but that plan, too, remained unfulfilled because of a lack of money. Eventually Woonsocket was linked with the Providence & Springfield by the Woonsocket & Pascoag Railroad, incorporated in 1889, after both roads had been leased by the New England.

By 1863 the New York & Boston Air Line Railroad, which was attempting to build a through route from Boston to New York, had reached Woonsocket, but there construc-
tion came to a halt. The main reason why the road abandoned its grandiose plan was that its principal rival, the Boston & New York Central, was pursuing the same objective over a parallel route and had made sufficient progress to convince the management of the New York & Boston of the futility of extending its road beyond Woonsocket. Both roads became part of the Boston, Hartford & Erie in 1864, but that company never completed the through road to New York. When the Boston, Hartford & Erie was reorganized as the New York & New England in 1873, the former New York & Boston route between Boston and Woonsocket became the New England's Woonsocket Division.

On 21 May 1889 the Woonsocket & Pascoag Railroad was incorporated for the purpose of extending the Woonsocket Division to serve communities and industries in North Smithfield and Burrillville. On 1 April 1891, a month before the road was opened, it was leased by the New England, with which it connected at Harrisville, 1½ miles east of Pascoag. Providing a link between the New England's Woonsocket Division and its Providence & Springfield line, the Woonsocket & Pascoag gave the New England its long-sought route between Providence and Boston over its own rails. A few Woonsocket Division passenger trains offered through service between Boston and Pascoag, but otherwise the route between Providence and Boston was suitable only for freight, since it was approximately 30 miles longer than the Boston & Providence's route between the two cities.
In spite of its worsening financial condition, on 11 June 1893 the New England managed to open a 7-mile extension from Pascoag to a point on its main line between Douglas, Massachusetts, and East Thompson, Connecticut. At East Thompson the New England’s Southbridge Branch provided a connection between the main line and the Norwich Division, thereby giving the extension access to the various roads that converged at Worcester. This extension, the last new track to be built in Rhode Island, gave the New England the potential to realize the Providence & Springfield’s goal of connecting with roads that would enable it to serve as a bridge line between Providence and points north and west of Rhode Island.

In 1887 Charles P. Clark became president of the New York, New Haven & Hartford Railroad. Clark had been general manager of the New York & New England during the 1870s and had served as its president from 1882 until 1886. His astute management brought a measure of stability to the chaotic situation that the New England had inherited from the Boston, Hartford & Erie. His years of experience with the New England had convinced him that the New England and the New Haven should be consolidated into a single system, an objective that he pursued as president of the latter railroad.

The New Haven employed a number of tactics to engineer the New England’s financial collapse. The most damaging of these was the diversion of interline freight traffic from the New England by forwarding it to its destination over other roads after they left New Haven rails. The New Haven also thwarted the New England’s efforts to secure access to New York City over tracks other than the New Haven’s. Meanwhile, New Haven director J. P. Morgan had been buying up New England stock, which he later offered to the New Haven at cost. The New England was declared bankrupt on 27 December 1893.

When the New York & New England emerged from bankruptcy in 1895, it had a new name, the New England Railroad, and Charles P. Clark, the president of the New Haven, was president of the New England as well. In his report for the year 1895, the railroad commissioner of Rhode Island commented favorably on this development:

> It is expected that great advantage for both roads will result from the change. Competition that in some cases helped neither road nor the public will be done away with; in many cases expenses can be reduced by one set of officers acting for both roads. Freight facilities can be satisfactorily arranged and used for mutual advantage, and the change cannot fail to be of benefit to the general public, though in perhaps some cases, private interests may suffer for a time. There is a great work to be done in improvements in rolling stock, roadbed, station houses and other matters before the New England R.R. can take its place as a first class road, but there is every prospect that this result will eventually be attained, though it will require years of hard work and careful management to acquire it.

The New Haven completed its conquest of the New England in 1898 by leasing the road, which was merged into the New Haven system in 1908.

By 1895, sixty years after the Boston & Providence began operation, there were almost 500 miles of track in Rhode Island, all but 21 of which were controlled by the New York, New Haven & Hartford Railroad. The 21 miles that were not under New Haven control belonged to four short-line railroads. Rhode Island’s railroads carried 52,339,355 passengers and transported 13,196,828 tons of freight in 1895. Owing to competition from the electric streetcar, the railroads had 486,996 fewer passengers in 1895 than they had
had in 1894, a decrease, noted the railroad commissioner, very much smaller than that of the preceding year.\textsuperscript{21}

There were 204 stations in the state in 1895. Of these, 175 were provided with buildings or shelters, a number of which the commissioner judged deficient:

> Very many of these . . . are but poor apologies for station houses. There has been nothing done, except repairs, during the year. At Manville, early in March, the building which has done duty for station purposes since the first opening of the railroad, fortunately took fire and was destroyed. If the same calamity should occur at Warren, at Newport, at the upper station at Woonsocket, and at a score of other places, it would not convulse the communities of these locations with grief, and perhaps might be looked upon as a “blessing in disguise.”\textsuperscript{22}

On a more positive note, the railroad commissioner reported that the foundations for the new Providence passenger station were in place and that work on the superstructure would begin in the spring of 1896. “It can reasonably be expected that in less than two years the city of Providence can pride itself on having ample freight and passenger accommodations, more centrally located and easier of access than those of any city in the country,” he declared.\textsuperscript{23}

On the night of 21 February 1896 the Union Passenger Depot, which had served Providence for almost half a century, was destroyed in a spectacular fire that was fought with every piece of fire apparatus in the city, while thousands of spectators stood in the freezing weather to witness the conflagration. A temporary facility had to serve until the new station was opened on 16 September 1898.
Notes

1. Advertisement for the "Railroad Line," which appeared regularly in the Providence Daily Journal during the fall of 1834 and the spring of 1835.

2. A detailed account of this trip by a reporter who rode the trains was published in the Providence Daily Journal on 5 June 1835. The quotations below are from this account.

3. The locomotive was named for George Washington Whistler, father of the artist James McNeill Whistler, who painted the famous portrait of his mother. The elder Whistler had married Anna McNeill, sister of William Gibbs McNeill, who had conducted the survey for the Boston & Providence Railroad and supervised its construction. McNeill and Whistler were both graduates of West Point, at that time the country's principal institution for the study of topographical engineering. Both were involved in the construction of other early New England railroads, including the New York, Providence & Boston, for which Whistler conducted the survey and supervised the construction. Alvin E. Harlow, Steelways of New England (New York: Creative Age Press, 1946), 86-87, 105-6, 108-9, 220-21.

4. The dividend was reported in the Providence Daily Journal on 1 Dec. 1835.


6. Providence Daily Journal, 13 Nov. 1837. The quotations in the following paragraph are also from this source.

7. Information on the early schedules of the New York, Providence & Boston was obtained from advertisements in the Providence Daily Journal between November 1837 and June 1838.


13. The Shore Line Railroad began operation in 1852 as the New Haven & New London. In 1856 it acquired the bankrupt New London & Stonington Railroad and reorganized as the New Haven, New London & Stonington. The combined roads continued to experience financial difficulty; however, and the bondholders foreclosed. As previously noted, the tracks between Stonington and Groton were sold to the New York, Providence & Boston in 1864. The portion of the road between New Haven and New London was reorganized as the Shore Line Railroad that same year.

14. In addition to the Rhode Island portion of the Boston & Providence, the Old Colony's lines in Rhode Island were the Providence, Warren & Bristol, which had been leased to the Boston & Providence; the portion of the Fall River, Warren & Providence between Warren and the state line; and the portion of the former Old Colony & Newport between Newport and the state line.


17. Although the New York & Boston had surveyed and graded its route for about five miles beyond Woonsocket, no track had been laid. A portion of the right of way was later used in the construction of the Woonsocket & Pascoag Railroad.


20. These were the Narragansett Pier line (Kingston to Narragansett Pier), the Newport & Wickford line (Wickford Junction to Wickford Landing), the Wood River Branch Railroad (Wood River Junction to Hope Valley), and the Moshassuck Valley line (Woodlawn to Saylesville). The 10-mile Pawtuxet Valley Railroad, which ran between Auburn and Hope, had been leased to the New York, Providence & Boston in 1883 and had come under New Haven control when the latter was leased to the New Haven in 1892. The Warwick & Oakland Beach Railroad, which ran about 10 miles from South Auburn to Buttonwoods, was operated for a time by the New York, Providence & Boston and was eventually converted from a steam railroad to an electric trolley line.


22. Ibid., 9.

23. Ibid., 30.