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Martha's Vineyard Museum's Journal of Island History

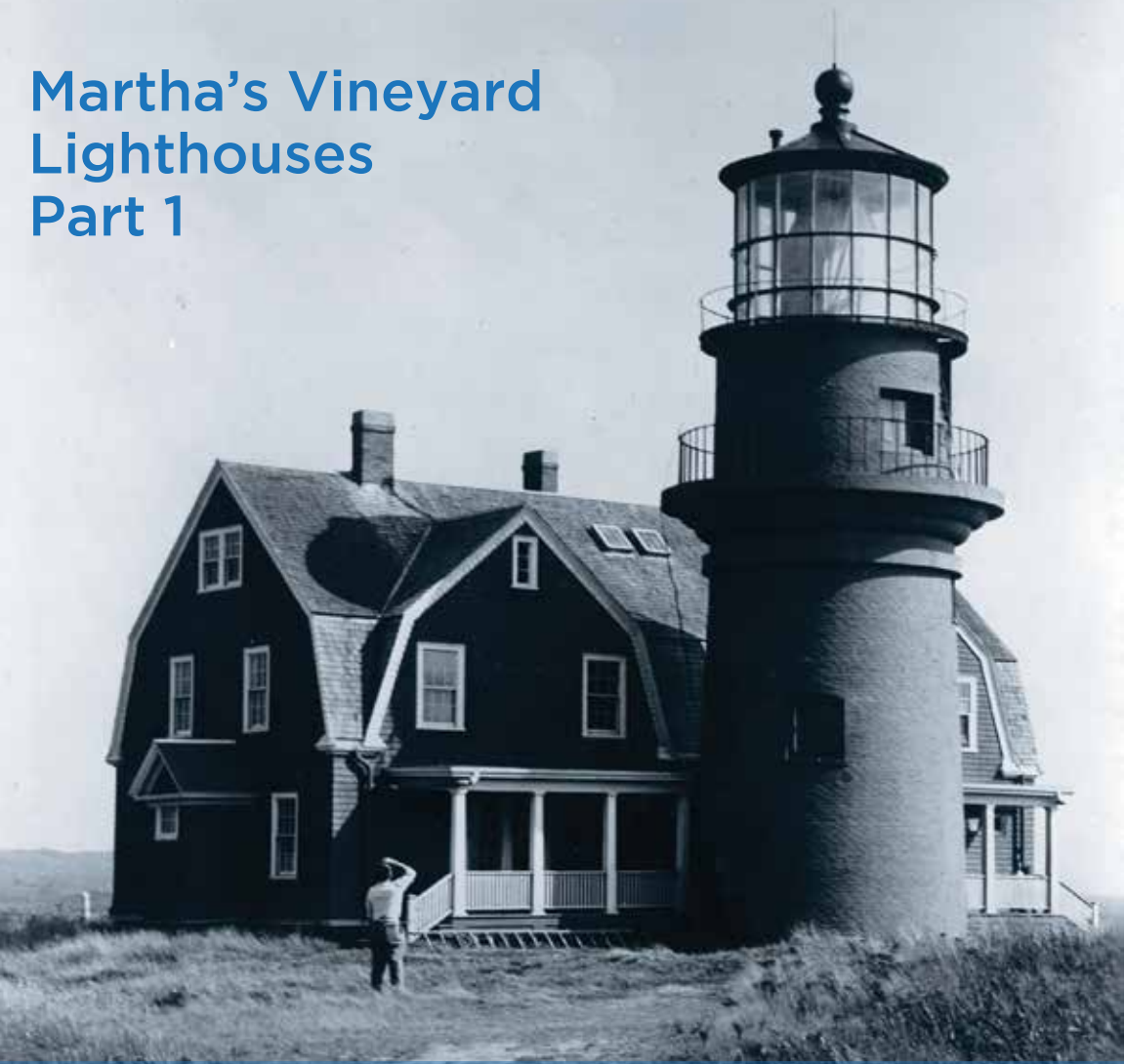
Formerly
The Dukes County
Intelligencer

NOVEMBER
2019

VOLUME 60
NO. 4

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Martha's Vineyard Lighthouses Part 1



Gay Head

West Chop

Holmes Hole

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Reviving a Tradition

Early in its history, when it was still named the *Dukes County Intelligencer*, this journal occasionally devoted an entire issue to a single subject. The first examples were relatively brief: Lloyd C. M. Hare on Vineyard whaling captains in San Francisco (February 1960), Sidney N. Riggs on Vineyard meeting houses (August 1960), and Alice Forbes Howland on the Pasque Island Fishing Club (February 1962) all topped out at twenty pages. Over time, however, they began to grow. Joseph Elvin's article on the history of trap fishing, which took up the entirety of the May 1964 issue, was thirty-five pages, and Allan Keith's on the mammals of Martha's Vineyard (November 1969) was fifty-two.

The issue containing Keith's piece on mammals, like other single-topic issues before and after, was later reissued, in a new cover, as a stand-alone pamphlet. It sold well, and the Museum still gets occasional inquiries about it. This issue of the *MV Museum Quarterly* was originally conceived as a return to that tradition, dormant since the early 1970s: the first in a series of annual single-author, single-topic issues that would appear as each year's November number and could (if there was sufficient interest) be republished as a stand-alone pamphlet.

It is still that, but in the process of writing it grew to a length that—for scheduling and production reasons—dictated publishing it in two parts. We hope that you will enjoy this first half (covering the Gay Head, West Chop, and Holmes Hole lights), and look forward to the second half in the February 2020 issue.

— A. Bowdoin Van Riper

MARTHA'S VINEYARD MUSEUM QUARTERLY

Special Edition

Martha's Vineyard Lighthouses

Part One

Written & Edited by A. Bowdoin Van Riper

Vol. 60, No. 4 © 2019 November 2019

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ISSN 0418 1379

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Introduction

Lighthouses are fixed aids to navigation, used to mark major headlands, channels, and harbor entrances, or to warn ships of their proximity to rocks, shoals, and other hazards. The earliest ones were constructed in antiquity, and of them—the Pharos, a towering beacon erected at Alexandria, Egypt—was one of the fabled Seven Wonders of the Ancient World. Lighthouses were in wide use in European waters, and privately funded ones had begun to appear in America, by the time of the Revolution. The leaders of the newly independent United States, recognizing the nation's dependence on maritime commerce, made the establishment of lighthouses a priority. The Gay Head Light, the first on Martha's Vineyard, was authorized (1798) and built (1799) during the administration of President John Adams.

Vineyard Sound and Nantucket Sound, the waters bounded by Cape Cod and the Elizabeth Islands to the north, and Martha's Vineyard and Nantucket to the south, were a major coastal shipping lane even before the Revolution. They offered the safest and most protected route for ships bound between Boston and New York, and were routinely used by vessels bound for ports as far north as Newfoundland and as far south as Rio di Janeiro and Montevideo. Determined to make the rock-and-shoal-studded, current-swept waters between the Cape and the Islands as safe as possible for ships whose crews often had little first-hand experience with them, the federal government poured money into building, supplying, and manning lighthouses along their shores. By 1830 the Gay Head Light had been supplemented by lighthouses at West Chop, Edgartown, and Cape Poge on Martha's Vineyard; Cuttyhunk and Tarpaulin Cove in the Elizabeth Islands; Great Point and Brant Point on Nantucket; and Nobska Point, Point Gammon, Chatham, and Monomoy on the southern shore of Cape Cod.

Lighthouses built during the early nineteenth century were constructed by local contractors using local materials (wood, stone, or brick) and nonstandardized designs. Some—Gay Head, West Chop, and Cape Poge among them—had a tower and an adjacent, usually single-story, house for the keep-

er and his family. Others—such as Edgartown and Nobska Point—were two-story houses with an iron-and glass "lantern" projecting from the roofline to house the beacon. The beacons themselves used arrays of oil-burning metal lamps, each backed by a parabolic mirror of polished metal designed to focus the light into a beam and direct it seaward. More efficient lighthouse optics—notably the revolutionary Fresnel lens, which surrounded a single powerful lamp with an array of precisely arranged glass prisms—were being used in European lighthouses by the mid-1820s, but their adoption in the United States was hindered by their high cost, and by bureaucratic inertia.

Mariners' complaints about the poor quality of American lighthouses relative to European ones eventually forced the government to act. A first-order Fresnel lens, the largest and most powerful type, was installed at a new brick tower at Gay Head in 1856. By 1860, every lighthouse on Martha's Vineyard, Nantucket, and the Elizabeth Islands—including a short-lived one at the head of Holmes Hole (now Vineyard Haven) Harbor—had been fitted with a Fresnel lens of the appropriate size and power.

Lighthouses were operated by keepers who were expected to live at (or, depending on the design of the station, *in*) the lighthouse, to keep it in perfect operating condition, and to maintain a constant watch over it. The beacon had to be lit at sunset each night and extinguished at dawn each morning, and—if it was designed to rotate in order to produce a distinctive pattern of flashes like Gay Head's white-white-white-red—the slowly falling weight that drove the rotation had to be winched back to the top of the tower several times a night. The tower itself had to be kept painted, the glass in the lantern scrubbed clean, the lamps cleaned and adjusted, and the mirrors (later prisms) meticulously polished so that the light would shine brightly. Keepers were expected to keep meticulous logs of their activities, submit quarterly reports to the Lighthouse Board, and be prepared for inspections that could come at any time.

Objects of fascination to the general public, lighthouses that were within easy reach of population centers often became tourist attractions. Welcoming daytime visitors, showing them around the station, and answering their questions was a significant—if unofficial—part of many keepers' jobs. Some, like Samuel Flanders of the Gay Head Light, became minor celebrities as a result, famous for their hospitality and storytelling ability. Keepers whose stations overlooked particularly dangerous waters also had another, more serious responsibility: Watching for ships in distress, alerting rescuers (or, if conditions allowed, rescuing survivors themselves), and giving aid and comfort to survivors who made it to shore.

The opening of the Cape Cod Canal in 1914 provided coastal ship traffic with a shorter, faster, safer route between Boston and New York than the centuries-old one through Vineyard Sound and Nantucket Sound.

Over the first half of the twentieth century, annual traffic dwindled from 30-40,000 vessels a year to a few thousand—mostly ferries, fishing vessels, and private yachts. The lighthouses—many now housed in conical cast-iron towers like those visible today at Nobska Point, East Chop, and Edgartown—remained in service, but they were gradually electrified, automated, and (with no more need for an on-site keeper to trim wicks, polish prisms, or wind up weights) closed to the public. The Fresnel lenses, redundant in an age of powerful electric beacons, were sent to storage, museums, or the scrap heap. The first-order lens from Gay Head was transferred to the Dukes County Historical Society in 1952, and is now a featured exhibit at the society's successor, the Martha's Vineyard Museum.

Some light stations, like Cuttyhunk, were eliminated after World War II as a cost-saving measure, and others were replaced by low-maintenance steel-skeleton towers. Plans to replace the decaying, 110-year-old Edgartown Harbor Light with such a tower in 1938 drew strong protests from residents of the town, resulting in the installation of the current lighthouse (moved from Ipswich, MA, where it was no longer needed) in 1939. In the late 1980s, a similar plan to demolish the lighthouses at Gay Head, East Chop, and Edgartown was halted by the nonprofit Vineyard Environmental Research Institute, which took over maintenance of the structures and opened them to visitors for the first time in decades. The Gay Head Light is now under the stewardship of the Town of Aquinnah. The Cape Poge Light is managed by the Trustees of Reservations, and the East Chop and Edgartown Lights by the Martha's Vineyard Museum. The Coast Guard maintains the optics at all five Vineyard lighthouses, and manages the buildings and grounds of the West Chop Light station.

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The multi-layered appeal of lighthouses—historic, aesthetic, and romantic—has made them a popular subject for writers. The Martha's Vineyard Museum Library has a shelf of books devoted to the lighthouses of New England, Massachusetts, and the Cape & Islands.[1] Regional guides to lighthouses, by their nature, trade depth for breadth, devoting a few

1 A far-from-complete list includes: Admont G. Clark, *Lighthouses of Cape Cod, Martha's Vineyard and Nantucket: Their History and Lore,* 3rd edition (Dennis, MA: On Cape Publications, 2006); Donald W. Davidson, *America's Landfall: Historic Lighthouses of Cape Cod, Nantucket & Martha's Vineyard,* 4th edition (West Dennis, MA: Peninsula Press, 1999); Jeremy D'Entremont, *The Lighthouse Handbook: New England,* 3rd edition (Kennebunkport, ME: Cider Mill Press, 2016); Sarah C. Gleason, *Kindly Lights: A History of the Lighthouses of Southern New England* (Boston: Beacon Press, 1994); Alison Shaw, *To the Harbor Light: Lighthouses of Martha's Vineyard, Nantucket, and Cape Cod* (Edgartown, MA: Vineyard Stories, 2004); and Edward Rowe Snow, *Lighthouses of New England* (1945. Beverley, MA: Commonwealth Editions, 2005).

pages each to scores of different lighthouses. Works that trace the history of a single lighthouse in depth are comparatively rare, though the Gay Head Light did get a book of its own in 2014.[2] The only work dealing exclusively with the six lighthouses that have existed on Martha's Vineyard is *Shoreline Sentinels,* a slim pamphlet published by the (then) Martha's Vineyard Historical Society in 2004 and reprinted in a revised edition by the Martha's Vineyard Museum in 2008. The chapters in *Shoreline Sentinels*—annotated timelines, adapted from the exhibit that the original edition was designed to accompany—are, like those in larger, wider-ranging lighthouse books, comparatively brief and necessarily incomplete.

Books and articles that touch, but do not dwell, on the lighthouses of Southern New England (histories, memoirs, and travel guides, among others) draw their information from books that *are* focused on those lighthouses. Books about lighthouse often draw, in turn, on earlier books about lighthouses. Errors, misunderstandings, and legends mistaken for facts—once they filter into the narrative—can, as a result, be difficult to root out again. The original Edgartown Harbor Light is routinely described has having been destroyed or damaged beyond repair by the 1938 Hurricane . . . but it wasn't. The short-lived Holmes Hole Light is conflated with the West Chop Light . . . from which it was entirely separate. The Gay Head Light is said to have been built with Chilmark-made bricks, and its Fresnel lens hauled overland from Edgartown by 40 teams of oxen . . . claims that are, at *best*, unproven.

Martha's Vineyard Lighthouses, conceived as a successor to and replacement for *Shoreline Sentinels,* is designed to address both problems. Each of its six subsequent chapters is a comprehensive—though not exhaustive—history of one of the Island's six lighthouses (the five now in existence, plus the decommissioned Homes Hole Light). Each is written directly from primary sources or from reliable secondary sources that are, themselves, rooted in primary documents.[3] The definitive, book-length history of the Island's lighthouses—sensitive to the nuances of their natural and social settings, exhaustive in its catalog of their facilities and equipment, and rich with the stories of those who lit their lamps and tended their machinery—has yet to be written. I hope that, someday, it will be. Until then, the work you hold in your hands can, if it fulfills its intended purpose, act as an equivalent—and a framework.

2 William Waterway, *Gay Head Lighthouse: The First Light on Martha's Vineyard* (Charleston, SC: History Press, 2014).

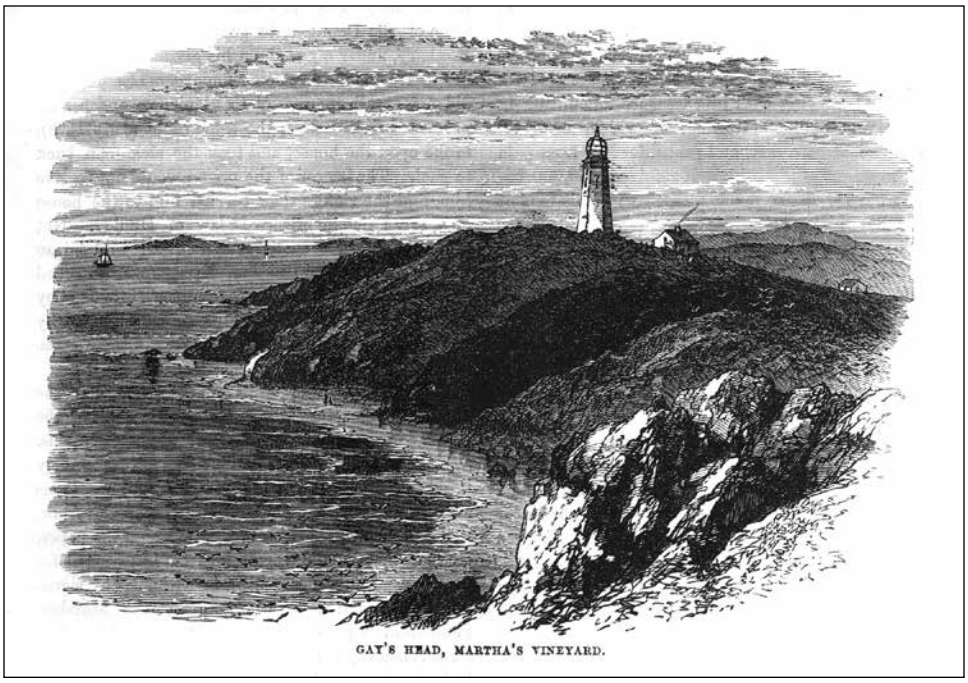
3 Isaac Newton, in a moment of uncharacteristic modesty, famously stated that he had seen further than others because he "stood on the shoulders of giants." Writing this, I stand on the shoulders of Kraig Anderson, Jeremy D'Entremont, Wayne Wheeler, and—most of all—the late Art Railton, editor of this journal for nearly thirty years and author (within its pages) of meticulously detailed articles on the Gay Head and Cape Poge Lights.

Gay Head Light (1799)

It was the first lighthouse on the Vineyard and it has, from the moment the current brick tower was raised in 1856, been first among equals. All of the Island's lighthouses—even the short-lived and unloved beacon at the head of Holmes Hole Harbor—have been placed in breathtaking settings, but none more so than the tower at Gay Head. Perched atop the layered clay cliffs that give the headland its name (cliffs that have lost much of their once-famous color, but none of their grandeur, to erosion over the last half-century), it looks out over a complex mosaic of land and water. An observer slowly circling the tower's balcony can see the uplands of Aquinnah falling away toward Squibnocket and Quitsa Ponds, Nomans Land crouched low and sullen on the southern horizon, the Elizabeth Islands to the north, and (on a clear day) Buzzards Bay and New Bedford beyond.

Countless ships have been wrecked within sight of the Gay Head Light, and the lighthouse built in an effort to diminish their numbers, but it has always been more than a warning to the unwary. To Vineyarders bound for points south and west—to New York and service in the Union Army, say, or to Hartford and the wider vistas opened to them by the American Asylum for the Deaf—it was a last glimpse of an island that they might never have left before. To Menemsha fishermen ending a long day in the waters south of Nomans Land, or New Bedford whalers returning after years in the Pacific, it was a sign that the end of the voyage was within sight. The Gay Head Light's long-familiar flash pattern—white, white, white, red[1]—had no intrinsic meaning, but for generations of Vineyard mariners it stood for home.

1 Instituted in 1874, the "three whites and a red" flash pattern was changed to alternating white and red when the lighthouse's electric lamp was upgraded in 1988. Nelson Sigelman, "Gay Head Light Will be Replaced with LED Blink," *Martha's Vineyard Times,* April 10, 2013. Copy in MV Museum Vertical Files Collection, VREF 1111.001 (Gay Head Light).



The first lighthouse at Gay Head, an octagonal wooden tower erected in 1799, as imagined by John Warner Barber in the 1830s. The size of the tower relative to the cliffs, and the undulating wildness of the surrounding landscape, are exaggerated for dramatic effect.

The Wooden Tower, 1795-1855

It is no small irony that the lighthouse most strongly associated with Martha's Vineyard was the result of a lobbying campaign launched by a man from Nantucket. Peleg Coffin, Jr. had, for two years in the mid-1790s, represented the Commonwealth's outermost island in the state senate. Out of office as of Inauguration Day in March 1795, he returned to his day job: running the New England Marine Insurance Company. As an insurer of ships and the namesake of a whaling-captain father lost at sea a month after he was born, Coffin was invested (both economically and an emotionally) in making life safer for those who went "down to the sea in ships." He had been one of the prime movers behind the establishment of a lighthouse of Great Point in Nantucket, and had encouraged its first keeper—Capt. Paul Pinkham—to use the tower as a vantage point from which to chart the treacherous shoals of Nantucket Sound.[2] In 1796, drawing on political skills he had honed in his years on Beacon Hill, Coffin wrote to Samuel Freeman, Jr., his representative in Congress.

2 Pinkham's "Chart of Nantucket Shoals" (c. 1798) became a standard for New England mariners. It is available online at https://collections.leventhalmap.org/search/commonwealth:3f462z371, and in the MV Museum map collection.

A lighthouse at Gay Head would, Coffin argued, reduce the number of ships wrecked at the entrance to Vineyard Sound. It would benefit his own company by reducing the monies they had to pay out, but also act for "the convenience and interest of Nantucket" and, by extension, of all those who sailed in the waters off New England. Only two lighthouses then stood between Newport and the elbow of Cape Cod—Brant Point and Great Point on Nantucket—and only fifteen in the entire United States, but Congress (mindful of the importance of maritime trade to the new republic) was receptive. The lighthouse appropriations bill that Congress passed, and President John Adams signed, in 1798 included $5,750 for a lighthouse at Gay Head.[3] The Governor of Massachusetts ceded just over two acres of land to the federal government for the building site, and Martin Lincoln of Boston was awarded the contract for a 47-foot octagonal tower set on a stone foundation and topped by a 7-foot iron-and-glass "lantern," a three-room keeper's house, and various outbuildings. He pledged to "perform all the work free from any after bills whatever" for the low price of $2,875, a bid that President Adams approved on June 28, 1799 with a notation in the margin. Lincoln and his crew worked through the summer, and by early September he was asking who the structure should be turned over to when it was finished. Gay Head (nearly) had a lighthouse, but it needed a keeper.[4]

The new lighthouse was located at the westernmost end of the Island, on land occupied by the largest subset of its surviving Wampanoag population. No consideration was given to appointing one of them as keeper—to white officials who believed that the Wampanoag required formal guardians to look out for their interest, the suggestion would have seemed absurd—but concerns were raised about the impact that the keeper's presence might have. William J. Rotch, a New Bedford merchant whose interest in the project stemmed from his government contract to supply whale oil to lighthouses, cautioned that the new lighthouse "is in a neighborhood of peaceful natives who are industrious and temperate." An unscrupulous lighthouse keeper, Rotch continued "may injure them by selling them liquor," and "feeling much concern for that people" he hoped that the new appointee would be specifically barred from doing so.[5] Rotch suggested Capt. Owen Hillman as keeper, but the government had already chosen Ebenezer Skiff, a lawyer and sometime teacher from Chilmark. They did, however, meet Rotch and those of similar views halfway, cautioning Skiff in writing and at length against dealing in "ardent spirits."[6]

3 Arthur R. Railton, "Gay Head Light: The Island's First," *Dukes County Intelligencer,* vol. 23, no. 1 (February 1982): 91-116, on 92.
4 Railton, "Gay Head Light," 93-94.
5 Railton, "Gay Head Light," 95.
6 Railton, "Gay Head Light," 95-98.

They need not have worried. Skiff, when not busy at the lighthouse, established himself as a teacher to the Wampanoag to supplement his $250-a-year salary. His free time, however, must have been limited. Like every lighthouse keeper, he was responsible for lighting the lamp at dusk and extinguishing it at dawn, for keeping the wicks trimmed and the oil reservoir filled, and for the seemingly never-ending task of cleaning soot and smudge from the fickle, smoky lamp off the glass of the lantern. On top of that routine, however, Skiff faced two additional challenges unique to the Gay Head station: cleaning wind-blown clay dust from the cliffs off the outside of the lantern, and hauling water from the nearest reliable spring, a mile away.

Skiff oversaw the first major modification of the Gay Head Light, which involved the beacon itself. At first, illumination was provided by one of the "spider lamps" then standard in American lighthouses: a shallow pan of whale oil in which a multi-armed metal frame (the "spider" of the name) held a series of wicks upright. In the early 1810's, however, this balky, smoky arrangement was replaced by a chandelier-like array of ten "Lewis lamps." Each consisted of a metal lamp with a cloth wick and a glass chimney, mounted inside a parabolic copper dish whose silver-plated interior surface was meant to focus the light into a beam. Each lamp had its own cylindrical oil reservoir mounted above and behind it: ten reservoirs for the entire array. Lewis adapted—stole, according to his critics—the design, from the French "Argand lamp," adding a green glass "lens" in order to make it patentable. His patent, issued in 1810, was promptly purchased for $20,000 by the federal government, which also hired him to install his lamps in 49 American lighthouses.[7]

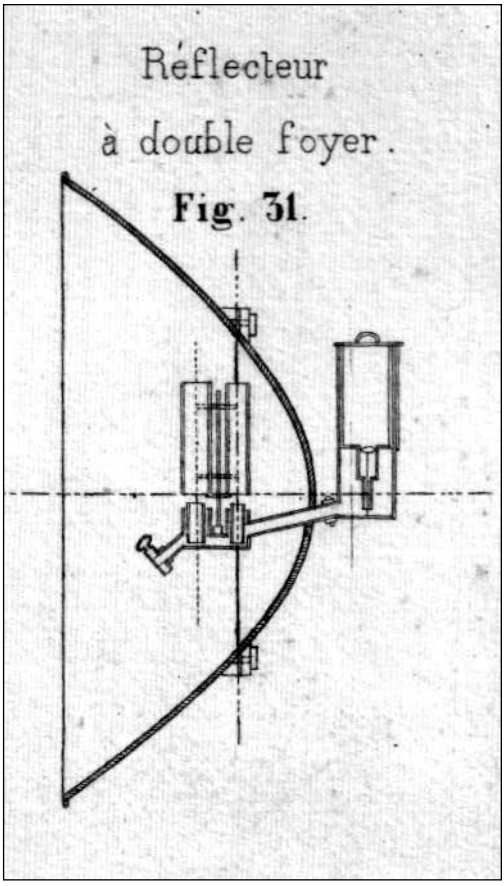
Ebenezer Skiff was far less impressed with Lewis's design than were his superiors in Washington. It was, he explained in a letter to one of them, more time-consuming to light, and the clockwork mechanism that turned the array of lamps was complicated and prone to breakdowns. The older light, he lamented, could be tended in his absence by "any man or lad under my wife's care," but the new one required him to enlist and instruct "some trustly white man" to fill in for him if he needed to go for wood, water, or other necessities. Having "no neighbors here but Indians and people of colour" he was obliged to hire the former as substitutes, offering them a dollar and three meals for each day. The need to pay such helpers, Skiff concluded, cut into his own $250-a-year salary, and he ended with a plea that the government "afford me relief by granting an increase in my salary."[8] The plea worked. President James

7 Eric Jay Dolin, *Brilliant Beacons: A History of American Lighthouses* (New York: Liveright, 2016), 70-76.

8 Quoted in George R. Putnam, *Lighthouses and Lightships of the United States* (Boston: Houghton Mifflin, 1917), 242-243.

Madison authorized an increase in Skiff's salary to $300 per year.[9]

Mariners, too, were unimpressed by the quality of the Lewis lamps, and by the early 1830s they had begun to complain. Augustin-Jean Fresnel had, in 1822, invented a new system in which a single large lamp was surrounded by carefully positioned glass prisms. The Fresnel lens captured and focused light from the lamp far more efficiently than the Argand and Lewis designs, allowing it to burn less oil yet still produce a brighter beam. They quickly became standard equipment in European lighthouses, and American sailors who had seen them in action lobbied (through Edmund M. Blunt, publisher of a popular manual of navigation) to have them adopted at home. The Lighthouse Establishment—an agency of the Treasury Department created to manage America's burgeoning collection of lighthouses—had other ideas. It had embraced Winslow Lewis's assurances that his lamps were state-of-the-art, and accepted his claims that their failings could be traced to slothful or inept keepers. It was also overseen by Stephen Pleasanton, a senior Treasury Department official whose aversion to spending money was legendary. The Lewis lamps—which Lewis himself swore were effective—were bought and paid for and stern exhortations to lighthouse keepers to do better were free. Fresnel lenses, however, cost money.[10]



The Argand-style lighthouse lamp, on which Winslow Lewis based his own design, was a staple of lighthouses before the invention of the Fresnel lens. It consisted of three components, shown here in cross-section: the lamp itself, an oil reservoir mounted above and behind it, and a curved metal mirror to focus its light.

Lewis lamps remained the standard in American lighthouses through the 1830s and into the 1840s. Their appeal began to fade, however, in 1841, when two Fresnel lenses were installed as a test at the twin Navesink Lights in New Jersey. The new lenses were so successful that in 1842 Congress commissioned an inspection tour of lighthouses in Maine, New

9 Railton, "Gay Head Light," 105.
10 Dolin, *Brilliant Beacons,* 103-111.

Hampshire, and Massachusetts by a 34-year-old engineer named I. W. P. Lewis. Lewis was the nephew of Winslow Lewis, but he regarded his uncle's lamps as outdated and markedly inferior to the Fresnel system. His assessment of the lighthouses he visited, however, was not limited to their lighting apparatus. He inspected the condition of the towers, lanterns, and keeper's houses, and queried the keepers about their living conditions and the quality of the oil they received.

Ellis Skiff had been on the job at Gay Head for nearly fifteen years when he received I. W. P. Lewis in 1842. He had wrestled with the same challenges that beset his father—balky clockwork, clay dust on the windows, and inadequate water—and watched as age, rot, and corrosion took its toll on the tower. The lantern and the deck that supported it, both on the verge of collapse, had been replaced in 1838, but Lewis's 1842 report suggested that the entire structure needed to be rebuilt. The keeper's house, which had received only minimal attention, was in even worse shape. Queried by Lewis in 1842, Ellis Skiff enumerated some of its shortcomings:

The chambers . . . are not lathed, plastered, or ceiled; and the house is not only cold and uncomfortable, but, from its elevated situation, likely to be blown down, as it shakes fearfully with every gale of wind. There are no shutters to the windows, and the sand blows in at all the crevices. There is no well of water on the premises. The barn has become so rotten in the framing, that I hardly think it can stand through another winter.[11]

The absence of a cellar, Skiff noted, obliged him to store the station's supply of oil in the tower, which was so cold and drafty that "I am often obliged to cut the oil out of the butts solid, bring it to the house, and warm it, before it can be used in the lamps." The job of transporting the oil from the house to the tower was complicated by 64 feet of open ground that lay between them: a challenge to traverse, Skiff concluded, in the howling, snowy gales of winter.[12] Lewis concluded his comments on Gay Head with the observation that the tower was endangered by the erosion of the cliffs, and the recommendation that it be moved further inland.

Lewis's report, submitted in 1843, spurred Pleasanton to quick (if limited) action. Eager, perhaps, to be seen doing *something* to begin correcting the problems Lewis had highlighted, he approved funds to move the Gay Head Light 75 feet inland. Done by John Mayhew of Edgartown in 1844, the job cost $386.75: not cheap (Skiff's annual salary was $350), but far cheaper than rebuilding the tower, let alone equipping it with a Fresnel lens. The Lewis report also convinced Congress that a problem existed—not just at Gay Head, but up and down the east coast. Lawmakers commissioned a more

11 Quoted in Kraig Anderson, "Gay Head Lighthouse," *Lighthouse Friends*, www.lighthousefriends.com /light.asp?ID=627

12 Anderson, "Gay Head Lighthouse."

detailed study, to be carried out by a panel composed of army and navy officers, which resulted in a 760-page report published in 1852. As scathing as Lewis's 1842 survey had been, the 1852 report brought down Pleasanton and ushered in a new era in the history of American lighthouses.[13]

A Brick Tower and a Lens from France

Lighthouse keepers' jobs, like those of customs collectors, were part of the "spoils system" that pervaded American politics in the middle of the nineteenth century. They were political plums to be handed out to supporters of the party in power. When the White House changed hands, lighthouse keepers and customs collectors who belonged to the defeated party packed their bags and moved on, their places were taken by supporters of the party newly in power. Jeremiah Pease, a staunch Democrat, was twice appointed keeper of the Edgartown Harbor Light. His first stint ended in 1841, with the inauguration of President William Henry Harrison of the Whigs; his second, begun under unaffiliated "accidental" president John Tyler and continued under Democrat James K. Polk, ended with the inauguration of another Whig, Zachary Taylor, in 1849. At Gay Head, keeper Samuel Flanders suffered from the same reversals. Appointed under Polk in 1846 and evicted under Taylor in 1849, he was reappointed under Franklin Pierce in 1853.

This politically driven fluke of timing gave Flanders a remarkable perspective on the changes that swept over the Gay Head Light in the 1840s and 1850s. Winslow Lewis and Stephen Pleasanton still held sway over American lighthouses during his first stint as keeper, but by the time he began his second, Lewis had died and Pleasanton—whom the *Vineyard Gazette* described as "a regular antediluvian old Granny"—had been shunted aside. A nine-member Lighthouse Board had been created, and given control over the Lighthouse Establishment, by an amendment to an 1852 appropriations bill.[14] The bill itself, drafted by Pleasanton in what turned out to be one of his last acts in office, included $13,000 for improvements to the Gay Head Light: more and better lamps with larger reflectors, a more reliable clockwork mechanism to turn them, and a new lantern with larger windows. The work was planned in the fall and winter of 1853, and completed in July 1854, but plans to scrap the existing light and start over were already in the air.

I. W. P. Lewis had argued, in the same 1843 report that called for moving the tower and described the poor condition of the keeper's house, that Gay Head should have the brightest possible beacon: "a light of the first order."

13 Railton, "Gay Head Light," 115-116.

14 Arthur R. Railton, "Gay Head Light Gets the Wondrous Fresnel," *Dukes County Intelligencer*, vol. 23, no. 4 (May 1982): 139-171, on 146-147.

The 1852 report made the same point, and specifically urged the installation of a Fresnel lens. With Winslow Lewis dead, Pleasanton forced out, and the value of Fresnel lenses amply demonstrated by the experimental installation at Navesink, the door was (finally) open for the widespread use of the Fresnel system in America. In August 1854, only weeks after the $13,000 upgrade approved in 1852 was finally completed, Congress appropriated $30,000 for a completely new Gay Head Light: a brick keeper's house and a fifty-one-foot brick tower topped by a first-order Fresnel lens.[15]

Such a lens was, at the time, the highest of high technology. Its combination of bulk and complexity, mass and precision, made it—and the new tower built to hold it—unlike anything seen on the Island before. The whaling industry and the coastal schooner trade had, by the 1850s, connected the Island with the wider world and introduced Vineyarders to dozens of exotic cultures, but the cutting-edge technological wonders of their *own* culture were no more familiar in Tisbury or Chilmark than they would have been in any other small American town of the era. Congress had thus, in August 1854, declared its intent to erect a modern Wonder of the World in one of the smallest, poorest, and remotest towns in the Commonwealth.[16]

The lens destined for Gay Head, manufactured by the Parisian firm of Henry Lapute, was composed of 1008 glass prisms set in 48 iron frames that, when bolted together, formed a sixteen-sided, three-tiered, beehive-shaped structure surrounding an oil lamp with five concentric wicks inside a glass chimney. The beehive rested on a cast iron platform that, braced by cast-iron arms, rotated on steel-and-brass wheels atop an iron supporting column. An elaborate clockwork mechanism, driven (like a grandfather clock) by a falling weight, drove a gear train that rotated the lens at the desired speed and—in conjunction with the arrangement of the prisms—caused the light to flash. It was a monument to the nineteenth-century idea that machines should be beautiful as well as functional. Seen today in its glass-fronted pavilion at the Martha's Vineyard Museum, the prisms sparkle, the polished brass and steel gleam, and the paint applied to the iron support structure to retard corrosion (a deep, glossy green that matches the original) highlights elaborate decorative geometric patterns cast into the metal.[17]

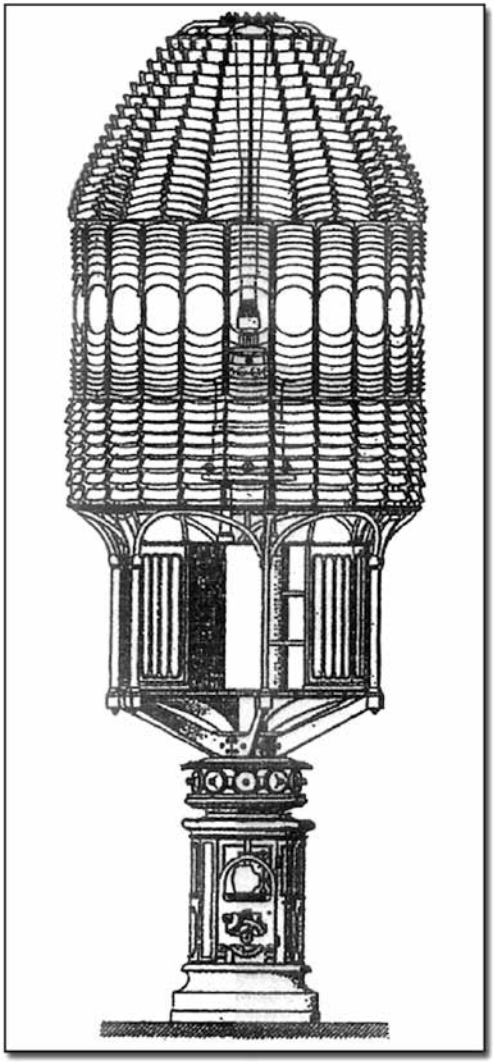
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15 For the larger picture, see Dolin, *Brilliant Beacons,* chapters 6-7, and Levitt, *Short, Bright Flash,* chapter 5 (esp. 165-171); for Gay Head, see Railton "Wondrous Fresnel," 148-152.

16 On the cultural dimensions of technology-as-spectacle in the nineteenth-century America, see David E. Nye, *American Technological Sublime* (Cambridge, MA: MIT Press, 1994), 32-43.

17 Railton, "Wondrous Fresnel," 155-159. Richard C. Skidmore, "Have You Seen the Light, Friend?" *Martha's Vineyard Magazine,* May 1, 2019. mvmagazine.com/news/2019/05/01/have-you-seen-light-friend

The new tower erected at Gay Head in 1856 was designed specifically to accommodate a first-order Fresnel lens. The glass-and-iron lantern was larger than those of earlier Vineyard lighthouses because the lens it contained was larger: large enough for an adult to climb inside and stand up straight. The brown sandstone balcony that girdled the brick tower two-thirds of the way up defined the position of a capacious room below the lantern where the support pedestal, turntable, clockwork, and weight could be accessed and serviced. The Gay Head tower was built of brick at a time when most other Vineyard lighthouses were wood because brick—and a central, load-bearing iron column that also supported the iron spiral staircase—was capable of bearing the weight of the lens and its apparatus.



Collections of precisely arranged prisms almost completely enclosing a single, central lamp, Fresnel lenses like the first-order type shown here captured more light, and focused it more efficiently, than the arrays of Argand-style lamps they replaced.

Moving the necessary materials to the top of the Gay Head Cliffs, building the tower, and installing the Fresnel lens atop it was the most complex construction project that had ever been undertaken on the Island. It is no small frustration, therefore, that there is virtually no record of who did it or how it was done, how long the work took or what the people of the Vineyard thought of it. The name of the builder—Caleb King of Boston—is a matter of record, as is the shipment of the lens from Le Havre to New York aboard the merchant ship *Uncle Toby* in April and May 1856.[18] William Waterway has shown persuasively, if indirectly, that the sandstone for the balcony probably came from the Portland Quarry in Connecticut.[19] Beyond those details, there is nothing: no drawings, no

18 Railton, "Wondrous Fresnel," 152-154.

19 William Waterway, *Gay Head Lighthouse: The First Light on Martha's Vine-*

photographs, no bills or receipts, and no first-hand accounts. The oft-repeated story that the lens was unloaded at Edgartown and hauled overland to Gay Head by "twenty yoke of oxen" can be traced back no further than a June 26, 1970 article in the *Vineyard Gazette,* which cites no source for it. The *Gazette*—beneath whose office windows at the corner of Main and Water Streets the ox team would have passed on its way out of town—said nothing about it in 1856.[20]

The components of the lens (disassembled and shipped in multiple crates), and the iron and glass for the lantern that ultimately enclosed it, *may* have been landed at Edgartown and hauled overland by oxen. Alternatively, they may have been landed on a wharf at the foot of the cliffs, with oxen used only for the last, difficult mile to the top of the cliffs. There are references to a wharf at Cooper's (later Pilot's) Landing that was used to load clay dug from the cliffs, and there must have been an established method—even if we do not know what it is—for delivering the barrels of whale oil used to fuel the light from 1799 to 1856. Oxen and ox carts would, in any event, have been readily available (and easily hired) near the job site: They were used by the Gay Head Wampanoag well into the twentieth century.[21] Moving heavy, bulky goods primarily by water was standard practice in coastal southern New England at the time, and it kept coastal schooners viable even as railroads and trucks emptied their holds of other cargo.

The bricks for the tower and keeper's house *could,* likewise, have been manufactured in Chilmark at Croft & Barrow's brickyard, rather than at a brick works on the mainland.[22] If they were, however, they were likely transported to the job site by water: The Chilmark brickyard had a deep-water wharf of its own where schooners could tie up and load bricks bound for New Bedford, Fall River, and other mainland ports. The roads linking the brickyard area to the rest of the island, rough even today, would have been rougher still in the 1850s, making water preferable to land transport for anything but the smallest quantities of bricks or the shortest distances. If the bricks for a job as large as the 1856 Gay Head Light were to come by ship *anyway*, there is ample room to believe that a Boston-based builder would have ordered them from a Boston-area manufacturer whose product he was familiar with. As with the transport of the lens, however, we don't *know.* The work of historians, like that of paleontologists and ar-

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yard (Charleston, SC: History Press, 2014), 62-64.

20 Arthur Railton suggests that the tale may have originated with keeper Samuel Flanders. See: "Our First Celebrity: Keeper Sam Flanders," *Dukes County Intelligencer,* vol. 23, no. 4, 172-179, on 178-179.

21 Henry Beetle Hough, *Martha's Vineyard—Summer Resort,* 3rd ed. (Rutland, VT: Academy Press, 1966), 202.

22 Waterway makes this argument in *Gay Head Lighthouse*, 54-65.

chaeologists, relies on the traces of the past that "time and chance" leave behind, and the building of the Gay Head Light left very few.

Tourist Attraction

The new brick tower and, especially, the new Fresnel lens drew attention from far beyond the Island, and Samuel Flanders, who lit the new lens for the first time on December 1, 1856 and more than a thousand lights afterward, proved to be the ideal steward of it. He was a gracious host to overnight guests and a voluble guide to casual visitors who came overland by cart or landed in small boats at the foot of the cliffs.[23] He was the subject of stories in national magazines like *Harper's* and in mainland papers like the *Boston Courier,* whose correspondent arrived from Edgartown in a party of sixteen, and were accommodated for the night in the keeper's house ("all comfortably") with Flanders, his wife, and their own fourteen children.[24] A gifted storyteller with a penchant for exaggeration, Flanders was fond of telling visitors that the beams from the lighthouse could be seen for seventy or eighty miles, and that the Fresnel lens had been shipped from France without the proper paperwork and "lost" in a New York warehouse for a year.[25]

Flanders and his family were turned out of the keeper's house in 1861 (a Democrat, he lost his position with the election of Abraham Lincoln, a Republican), but the Gay Head Light's popularity continued under later, less theatrical keepers. The 1870 incorporation of Gay Head as a township led to the establishment of a post office and the state-funded improvement of the road to Chilmark. Oak Bluffs blossomed as a summer resort in the late 1860s,[26] and publications that promoted the Island as a tourist destination invariably mentioned Gay Head's cliffs and lighthouse as one of its must-see attractions.[27] The steamboat companies that ferried tourists from the mainland to the Vineyard offered excursions to Gay Head to see the lighthouse from the sea, and then go ashore—initially by rowboat to the beach and later, dry-shod to a wharf built at Pilot's Landing. Local residents opened seasonal hotels catering to visitors who wanted to stay overnight, and operated an open-air pavilion where bands played and tourists could buy refreshments, souvenirs, and rides in ox carts driven by the local Wampanoag.

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23 Railton, "Our First Celebrity," 172-177.

24 Reprinted in the *Gazette* on October 5, 1860, and quoted in Railton, "Our First Celebrity," 178.

25 Railton, "Our First Celebrity," 176-177.

26 Skip Finley, "Captains of Cottage City: The Men Behind the Boom of the Bluffs," *MV Museum Quarterly*; vol. 59, no. 3 (August 2018): 3-20; Henry Beetle Hough, *Martha's Vineyard: Summer Resort* (Rutland, VT: Tuttle Publishing, 1936).

27 Martha's Vineyard Museum, RU 205, Tourism on Martha's Vineyard Collection.



A party of tourists, perhaps brought from one of the down-Island towns by an excursion steamer, poses at the Gay Head Light in the 1890s. The single-story brick keeper's house, erected in 1856 and torn down in 1902 is in the background.

If Oak Bluffs (and, by the late 1890s, Edgartown) were resorts to which visitors came for a week, a month, or an entire season, Gay Head was an attraction that most consumed in a day. Heavily promoted and enthusiastically patronized, it was far enough from the down-island towns for the trip there, whether by carriage or steamer, to feel like an adventure. Once there, visitors could tour the lighthouse, explore the cliffs (cutting chunks of raw clay with pocket knives and taking them home in small paper boxes), and visit what fliers for the steamer excursions called an "Indian village" or "a settlement of genuine Indians."[28] Like a miniature version of the 1893 Columbian Exposition, Gay Head brought the natural and technological sublime, along with the human exotic, together in a convenient package for easy consumption by visitors. The paving of the state road to Gay Head in the 1920s changed the logistics of Gay Head tourism (leading to the proliferation of cars, and the end of steamer excursions), but not its fundamental nature.

The Gay Head Light itself, like the tourist economy of which it became an integral part, changed only modestly as the last third of the nineteenth century gave way to the first third of the twentieth. Over the twenty years following the Civil War, the lamp was converted from sperm-whale oil to lard oil and then to kerosene: a local echo of a nationwide technological and economic shift that spelled the beginning of the end for the New

28 Hough, *Martha's Vineyard: Summer Resort,* 202-203.



The 1856 brick keeper's house, condemned as unfit for human habitation, was replaced in 1902 by the barn-roofed wooden structure shown here.

England whaling industry. The lens itself was fitted with red glass panels over every fourth segment in 1874, giving it a "white-white-white-red" flash pattern intended to distinguish it from the similarly bright lights at Montauk on Long Island and Sankaty Head on Nantucket.[29] With the decline of the "spoils system," lighthouse keepers were freed from the job insecurity created by partisan politics and gradually transformed into a professionalized corps of civil servants. Leonard L. Vanderhoop of Gay

29 Railton, "Wondrous Fresnel," 163-164.

Head joined that corps in 1892, as assistant keeper under Crosby L. Crocker.[30] He was the first citizen of Gay Head, and the first Wampanoag, to be formally employed at the lighthouse.

Crocker had himself been hired as an assistant keeper in October 1890, remained in the position when principal keeper William Atchison resigned due to illness in December, and become principal himself when Atchison's replacement, Edward P. Lowe, died suddenly in February 1891. Five years later, between January 1896 and July 1897, four of Crocker's five children became gravely ill and died.[31] The rash of deaths, followed by that of a fifth Crocker child in early January 1901, led to questions about the safety of the station and the habitability of the 1856 brick keeper's house. A 1901 report to the Lighthouse Board declared it "too damp and unsanitary for safe occupation by human beings," and it was torn down—replaced by a spacious, barn-roofed wooden dwelling the following year.[32] The specific causes of the illnesses and deaths, the lack of any similar health issues at the station prior to 1890, and the reasons why principal keepers and their families fell sick while assistant keepers stayed healthy, remain a mystery.

The Crockers moved (no doubt gratefully) into the new house, but tragedy followed them. Their only surviving child, fifteen-year-old George, died there in May 1907. They stayed on for thirteen more years before retiring to Vineyard Haven, where Eliza Crocker died in 1929 and Crosby himself in 1931. Crocker was succeeded at Gay Head by Charles W. Vanderhoop, whose uncle Leonard had been Crocker's assistant a quarter-century before. Charles Vanderhoop became the tenth principal keeper of the Gay Head Light, and the first Native American in the history of the Lighthouse Service to hold such a position. Supported by assistant keeper Max Attaquin—a fellow Gay Head Wampanoag—Vanderhoop served from 1920 until his own retirement in 1933, earning a reputation for efficiency and (like Samuel Flanders long before) hospitality to the lighthouse's evermore numerous visitors.[33]

Moving the Lens and Moving the Light

The Cape Cod Canal opened in 1914, six years before Vanderhoop became principal keeper, and Vineyard Sound's days as a major maritime thoroughfare were long since over by the time he retired. The light, however, was still an important aid to navigation. All four of the Island's other

30 Leonard L. Vanderhoop (b. 1855) was a member of the second lifeboat crew that pulled survivors from the wreck of the *City of Columbus* in 1884. He was also the uncle (and namesake) of WWI veteran and Wampanoag tribal elder Leonard F. Vanderhoop (1895-1989).

31 Waterway 96-99; Railton, "Wondrous Fresnel," 165-166.

32 Railton, "Wondrous Fresnel," 166-167.

33 Railton, "Wondrous Fresnel," 167-169.

lighthouses had been electrified, and three of them automated, by 1945, but at Gay Head principal keeper Frank Grieder ended each day by climbing inside the Fresnel lens to light a kerosene-vapor lamp that had been state of the art when it was installed in 1912. The lighthouse remained tied to the rituals of the past because, technologically speaking, the future had not yet arrived. A remote, inaccessible town with a population of less than 200, Gay Head would not get electrical service until 1952—the last town in the Commonwealth of Massachusetts to do so.

When electrification came to Gay Head on February 14, 1951,[34] it ended the practical need for the Fresnel lens. Its value had, for nearly a century, lain in its ability to gather, concentrate, and magnify the light from an oil (or, later, kerosene) lamp. It made lighthouses more effective by enabling a lamp of manageable size to be seen at great distances, and made them more efficient to operate by enabling that lamp to run on modest quantities of fuel. Modern electrical beacons could provide a light of sufficient range and brightness effortlessly, and at vastly reduced cost. The current itself had to be paid for, of course, but everywhere else in the process electrification reduced time, effort, and expense. There was no more need to stockpile fuel at the site, to haul it up the spiral stairs a few gallons at a time, or to keep the lamp and the fuel-feed mechanism adjusted. There was no more need to clean and polish the lens's 1008 prisms, to adjust the clockworks that turned it, or to winch the weight back to the top of the tower every few hours. Soon, there was judged to be no more need for a keeper, and the station was automated in 1956.[35] The keeper's house, stood empty for another five years, before being demolished in 1961.

The fate of the Fresnel lens from Gay Head was another, more complicated, matter.[36] The Sankaty Head light's second-order Fresnel lens was transferred to the Nantucket Historical Society when it was decommissioned in 1950, and the Boston Museum of Science, which had also hoped to acquire it, made overtures to the Coast Guard the same year, asking for the Gay Head lens when *it* was retired. On April 6, 1951, the Dukes County Historical Society (now the Martha's Vineyard Museum) requested that it be the recipient of the lens, continuing the pattern of local stewardship established at Nantucket. Gerald Chittenden, then president of the Society, lobbied the commandant of the Third Coast Guard District and enlisted the support of Massachusetts' congressional delegation. The plan was en-

34 Chris Baer, "That Was Then: Electrifying," *Martha's Vineyard Times,* February 20, 2019. https://www.mvtimes.com/2019/02/20/this-was-then-electrifying/

35 Railton, "Wondrous Fresnel," 170-171.

36 The following narrative is based on materials collected in RU 212 (Lighthouse Collection), Box 3, Folders 3-7 and Vertical File 1111 (Gay Head Light). See also Waterway, *Gay Head Lighthouse,* 125-129.



Rendered unnecessary after the electrification of the light in 1952, the Fresnel lens from the Gay Head Light was turned over to the Dukes County Historical Society, which raised funds for a replica of the lighthouse tower in which to display it.

dorsed by the Aquinnah Club of Gay Head on April 13, and by former keeper Charles Vanderhoop in June. The Museum of Science ended is bid for the lens on June 8, and the Coast Guard approved its transfer to Edgartown "in principle" five days later.

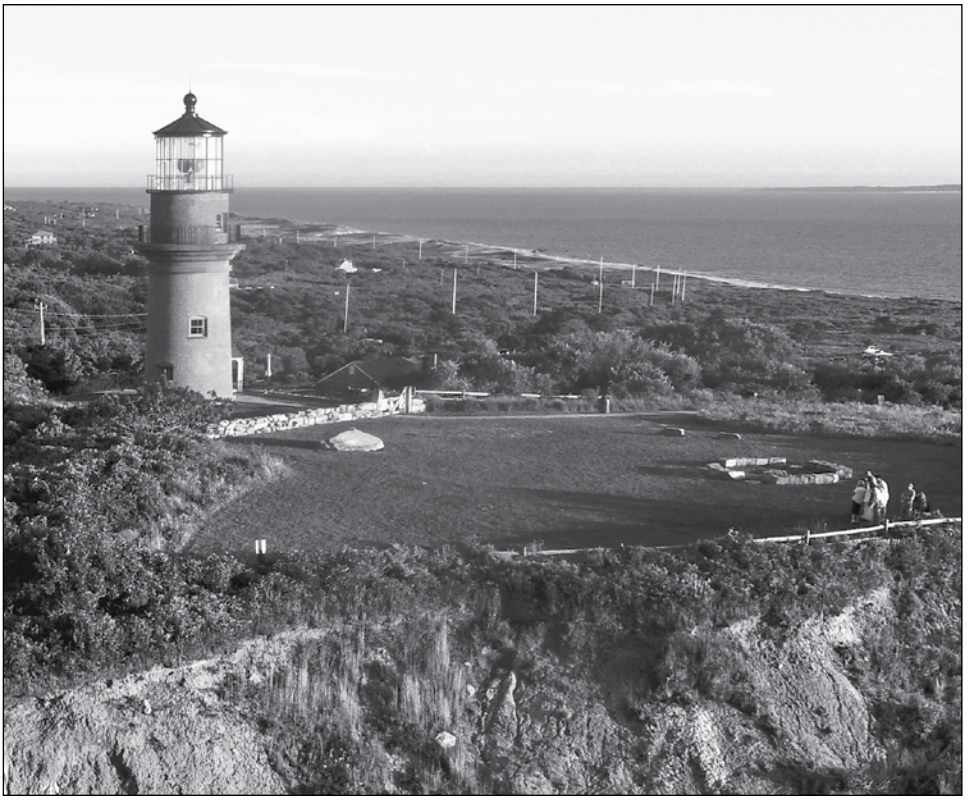
In July 1951, the Society shared its design for a one-story brick tower—mimicking the upper part of the Gay Head Light—to house the lens on its Edgartown campus. A fundraising campaign, intended to raise money to build the tower and maintain the lens, began around the same time. Five months later, in late December 1951, a letter appeared in the *Vineyard Gazette* arguing that the lens should remain in Gay Head. Gerald Chittenden responded in the following week's issue (January 4, 1952), restating the Society's case for bringing the lens to Edgartown, and emphasizing the need for ongoing maintenance and stewardship—both of which, he argued, the Society could provide. A flurry of letters, on both sides of the issue, appeared in the *Gazette* in January and February 1952; the Society held multiple meetings with Gay Head residents; and the Aquinnah Club attempted to "clarify" its earlier, unequivocal support for displaying the lens in Edgartown.

Coast Guard policy stipulated that the decommissioned lens had to be transferred to a "responsible organization," and on March 7 the Gay Head Improvement Association, moribund for decades, was formally revived in an effort to create one. The Association announced ambitious plans for a museum in Gay Head, of which the Fresnel lens would be the centerpiece, but time was not on its side. The lighthouse was scheduled to be electrified, and the lens removed, in June, and on April 15 the Coast Guard formally notified the Dukes County Historical Society of its intent to transfer the lens to them at that time. The Coast Guard's announcement rendered the Gay Head campaign moot. The lens was installed in the Society's newly completed brick tower in the summer of 1952, and fitted with an electric light so that it could be illuminated on summer evenings. It was lit for the first time in its new home by Charles Vanderhoop, the guest-of-honor at the dedication ceremony.

Three years after its move to Edgartown, the Fresnel lens quietly turned 100 years old. A cutting-edge technological marvel when it was first installed, it had become a quaint—though still impressive—relic of a bygone age. The lighthouse at Gay Head was closed to the public around the same time, in anticipation of its impending automation, and remained closed for the next thirty-five years. In the 1980s, it was one of three Island lighthouses slated by the federal government for closure, demolition, and replacement (with a low-maintenance steel tower) as a cost-saving measure. The nonprofit Vineyard Environmental Research Institute (VERI), with the support of Representative Gerry Studds and Senator Edward Kennedy, successfully lobbied for the three lighthouses and their associated structures and ground to be placed under local control instead., and in 1987 was granted a forty-year license to act as steward of all three.

The VERI reopened the Gay Head Light to the public in the summer of 1990, a tradition continued by the Dukes County Historical Society after it assumed stewardship duties from the Institute in 1994, and then by the Town of Aquinnah, which took over from the Martha's Vineyard Museum in 2018.[37] The latter transfer was the culmination of a larger process, which began when the Coast Guard declared the Gay Head Light "excess to needs" in 2013. The announcement came with a deadline: If no "eligible entity"—a federal, state, or local agency; nonprofit corporation; or cultural organization—applied to take no-cost ownership within sixty days, the lighthouse would be sold. The Town of Aquinnah applied for, and was granted, ownership of the Gay

37 Gay Head had voted in 1997 to change the name of the town to Aquinnah. The Dukes County Historical Society had changed its name to the Martha's Vineyard Historical Society in 1996 and then to the Martha's Vineyard Museum in 2006.



Its stone foundation settled on a new concrete base after its 2015 move inland, the Gay Head Light is expected to be safe from erosion for 150 years. The circle of stones at right marks its pre-move position at the edge of the cliff. —Photograph by, and courtesy of, Denys Wortman.

Head Light, formally assuming control in 2014.[38] Over the next year it worked with the Save the Gay Head Light Committee and donors from across the Island to orchestrate the $3.5 million relocation of the lighthouse to a new location 129 feet inland from where it was first built in 1856.[39]

The move, a deft integration of brute force and precision engineering, was completed in June 2015. The painstaking process of preparing the tower to be lifted off its foundation, inched across a specially prepared roadbed by a system of steel rails and hydraulic rams, and settled onto its new foundation revealed previously unnoticed damage done by weather

38 Sara Brown, "Aquinnah Approved for Gay Head Light Ownership," *Vineyard Gazette,* September 18, 2014. https://vineyardgazette.com/news/2014/09/18/aquinnah-approved-gay-head-light-ownership

39 Documented in *Operation Lighthouse Rescue* (2016), aired on the PBS series *Nova* in January 2016. Transcript at: https://www.pbs.org/wgbh/nova/video/operation-lighthouse-rescue

and the passage of time. The Town of Aquinnah and the Gay Head Lighthouse Committee have continued to raise funds for necessary repairs and ongoing maintenance. The Fresnel lens—disassembled, cleaned, and restored by retired Coast Guard "lampist" Jim Woodward in preparation for the Martha's Vineyard Museum's 2018 move from Edgartown to Vineyard Haven—was reinstalled in its new home early in 2019.[40] Like the tower itself, now located a comfortable 180 feet from the eroding cliff edge, its future is now secure for a century or more.

40 Jack Shea, "Through a Lens Brightly," *Martha's Vineyard Times,* October 4, 2016, https://www.mvtimes.com/2016/10/04/through-a-lens-brightly/; Skidmore, "Have You Seen the Light"

West Chop Light (1817)

It is a scant five miles from Woods Hole to West Chop, the place where the Vineyard lies closest to the mainland. For eastbound vessels, it is a welcome signal that the channel will soon begin to broaden as the land on either side recedes. For westbound vessels, it is a reminder to recheck the course and keep a sharp eye for the hazards that lie ahead: Devil's Bridge to port and Sow & Pigs, the submerged rocky "tail" of Cuttyhunk, to starboard. Recreational fishermen and small-boat sailors who ply the waters around West Chop absorb, from those older and wiser, the mostly unwritten "local knowledge" that annotates the tersely symbolic government charts. Mind that the current runs a knot faster inside the Middle Ground than outside it, and don't try to cross the shoal at low tide. Watch out when the wind blows hard against the tide, and churns the sea into a confusion of waves that seem to hit you from everywhere at once. Give the tip of the chop a wide berth—there are rocks everywhere—and don't cut in tight if you're bound up the harbor, because if you do the biggest boulder of all will lie just ahead.

West Chop Light—the third on the Island, after Gay Head and Cape Poge—was built to warn mariners of those hazards: a turning point for those bound into Holmes Hole (now Vineyard Haven) Harbor and a waypoint for those bound elsewhere. It is an anomaly among the Island's five remaining lighthouses: the last to be automated (in 1974), the last with a (fourth-order) Fresnel lens, the last to retain its keeper's and assistant keeper's dwellings. Thousands of visitors and residents drive by it each year on the scenic one-way loop road that skirts the tip of West Chop, and many thousands more glimpse it from the decks of passing ferries, but it is the only lighthouse on the Island not currently open to the general public. The most-seen of all the Vineyard lights, it is also (apart from the short-lived, long-vanished Holmes Hole Light at the head of the harbor) the least-known.

The First Stone Tower

Vineyard Sound was already a busy maritime highway when Thomas Dunham, Captain Seth Daggett, and other citizens of Holmes Hole—the easternmost village in the town of Tisbury—petitioned Congress to appropriate funds for a lighthouse at West Chop. Tisbury, which then encompassed the entire center of the Island, was an agricultural town, but Holmes Hole—like the village of Eastville, an outpost of Edgartown on the far side of the harbor—looked to the sea for its livelihood. The men of Holmes Hole went to sea on fishing and whaling vessels, coastal packets and oceangoing merchant vessels. Many, like Captain Seth Daggett, hired themselves out as pilots, drawing on their years of experience to guide passing ships through the treacherous, poorly charted waters between the Cape and the Islands.[1] Those on shore catered to the needs of ships and sailors that paused in the harbor for rest, repairs, and resupply. A lighthouse at West Chop, they argued, would enhance the safety of all—Americans and foreigners—who plied the waters of Vineyard and Nantucket Sounds.

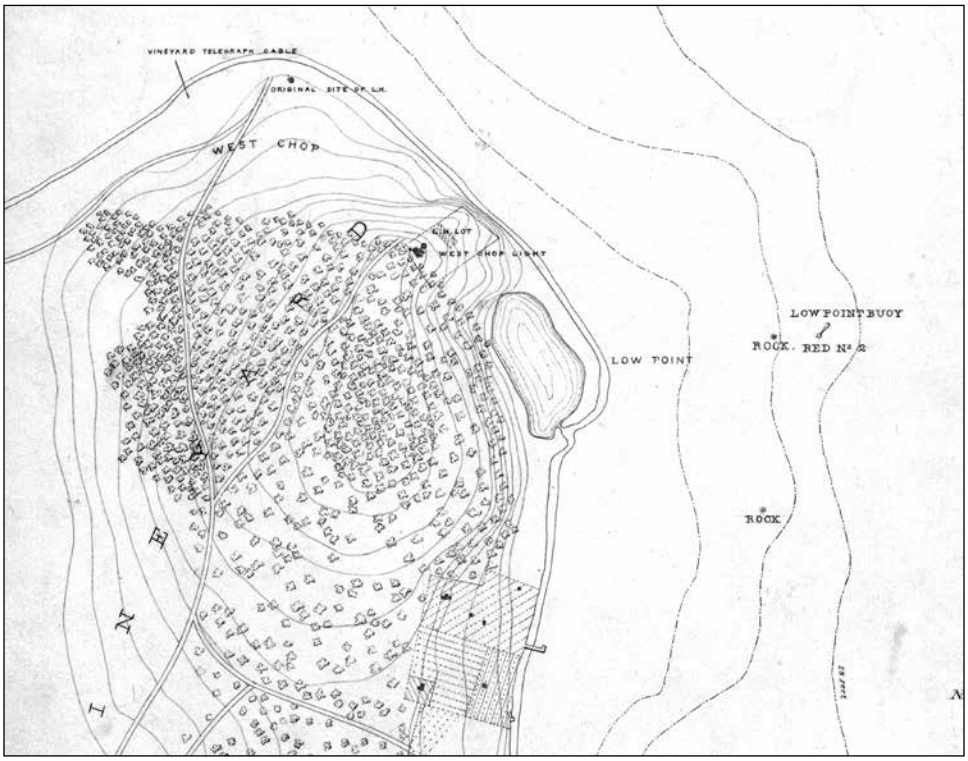
Congress saw the matter differently. A privately-owned lighthouse had been in operation at Tarpaulin Cove, on the shore of Naushon Island, since 1759, and in 1807 Congress had approved a federally funded one to take its place. The new Tarpaulin Cove light was still on the drawing board—delayed by a fight between the government and James Bowdoin III, one of the owners of the island[2]—when Dunham and others petitioned for a light at West Chop in late 1815. The response they received from Rep. James Reed on January 15, 1816 evidently explained that the Tarpaulin Cove Light would serve Holmes Hole's needs just as well. Responding to Reed on February 7, Dunham begged to differ. It was not, he explained, that he and his fellow petitioners sought repeal of the earlier act of Congress, or that "a light-house at Tarpaulin Cove would be any disadvantage" to them. It was simply that the proposed beacon was in the wrong place. Appealing to "the principle of economy" and noting their desire to avoid "misappropriation of public money," they expressed their confidence that "the public will be better served by having the light on the West Chop of H. Hole." Congress, he concluded would "see the necessity of erecting a light sooner or later on the West Chop."[3] Why not now?

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1 See Janet P. Bosworth, "Seth Daggett: Master Pilot," *Dukes County Intelligencer,* vol. 22, no. 1 (August 1980): 22-28; and RU 488 (Seth Daggett Papers).

2 Bowdoin, who would serve as governor of Massachusetts from 1785-1787, apparently wanted the government to pay him a stipend to continue operating the existing, private light.

3 Wayne Wheeler, "West Chop Light: A History," *Dukes County Intelligencer,* vol. 54, no. 2 (Summer 2013): 3-22, on p. 4.



A close-up of a US Coast and Geodetic Survey map of Vineyard Haven Harbor, showing the first (1817) site of the West Chop light at the tip of the headland, and the second (1845) site where the stone tower was rebuilt and the current brick tower still stands. Point Pond and Low Point, which lured unwary mariners too close to shore until a red sector was added to the light to warn them away, were erased by erosion in the early 1900s. —Courtesy of the National Archives.

Congress—perhaps because of Dunham's plea or perhaps for other reasons, now lost to history—ultimately decided that two lighthouses would be better than one. It appropriated $5,000 for a light at West Chop on March 3, 1817, while going forward with its decade-old plans for one at Tarpaulin Cove. A contract for the West Chop Light and keeper's house was awarded to the firm of Beall & Thaxter, based in Hingham, on May 1817, and the state legislature voted in June to cede to the federal government the land, "not to exceed four acres," on which they would be built. Henry A. S. Dearborn, superintendent of Massachusetts lighthouses, recommended the appointment of William Daggett of Holmes Hole as keeper in June, but by July "a reprobation" from an unnamed third party had changed his mind. The accusations, whatever they were, were in Dearborn's opinion "sufficient to prevent [Daggett] from being appointed to any office under the government." The position went, instead, to James West, who executed it with skill and dedication for many years.

The lighthouses at West Chop and Tarpaulin Cove, both lit for the first

time in October 1817, were virtual twins: a 25-foot conical tower adjoined by 34 x 20-foot single-story dwelling for the keeper, a well, and a privy. The walls of the towers and houses were rubblestone masonry: rough, medium-sized stones set in mortar, with wooden framing around the windows and doors. The contract laid out the specifications for both house and tower in meticulous detail, enumerating everything down to the nature of the well bucket and the style of the locks and hinges. Thomas Cooke, Jr., then Collector of Customs in Edgartown and thus the federal government's representative on the Island, inspected the newly completed West Chop structures on October 4, 1817, and found it good.[4] Even with its meticulous attention to detail, however, the government hadn't thought of everything. Four months into his tenure as keeper, on February 17, 1818, West petitioned Dearborn for a boat and a small pier. Three vessels had been wrecked on the Middle Ground over the previous winter, he noted, and with a boat at the station "assistance might be afforded much sooner and with more certainty than from any other quarter." The pier would act as a convenient landing-place for the boat, but also for the oil, wicks, lamp chimneys, and other supplies that were delivered by sea several times each year.

The response from the U.S. Lighthouse Board was quick and decisive. They said no.[5]

Officials proved more willing to spend money on the lighthouse's optics. Ten years after the West Chop Light was first lit, Dearborn received a petition from a dozen mariners, asking that its existing system of lamps and reflectors be upgraded, in order to make its signal brighter and thus more visible. It had originally been fitted with oil-burning Lewis lamps backed by nine-inch reflectors, arranged in a single tier, but new lighthouses were being fitted with ten lamps in two tiers, each with a fourteen-inch reflector. The importance of the West Chop station, the petitioners argued, made an upgrade to "modern" standards well worth the estimated $20 cost. Dearborn, in full agreement, endorsed the request and forwarded it to Washington. They, too agreed, and the new optics were installed in 1833. Lieutenant Edward P. Carpenter, on an inspection tour of Atlantic coast lighthouses in 1838, found them more than adequate to the task, and "in admirable order: reflectors bright, glass perfectly clean, lamps carefully trimmed, and everything justifying the high reputation it enjoys along the coast."[6] The only note of concern in his report involved the tower's position. Noting that the bluff on which it stood was eroding rapidly, Carpenter anticipated that both tower and keeper's house might need to be moved, and recommended a site just over 300 yards to the southeast,

4 Wheeler, "West Chop Light," 5-7.
5 Wheeler, "West Chop Light," 8.
6 Wheeler, "West Chop Light," 8-9.

"much approved by the pilots" because it would provide better warning of an inshore shoal where 127 vessels had gone aground in the preceding twenty years.[7]

The light itself may have been "in admirable order" in 1838, but after only twenty years of service the tower and keeper's house were deteriorating badly. On October 3, 1842—twenty-five years after he took responsibility for the then-new beacon—West filed a scathing report on its condition. Both the house and the tower leaked copiously, he wrote. Rot was present in virtually all the woodwork, and the house was damp and cold. The inside of the tower was coated with ice each winter, and the buildup on the deck around the lantern was so thick that it had to be cut away with an axe. The weatherproofing of the lantern was poor, causing it to "sweat" continually and the glass to become obscured with frost and ice in the winter. The reflectors "stand too far apart to give as good light as ought to be here," and the erosion problem had become critical. The base of the tower stood, in the fall of 1842, only thirty-seven feet from the edge of the bluff. Having lived there a quarter-century, West knew that a single winter storm could carve away thirty feet at a stroke, and that the tower was one bad night away from falling into the sea. "I consider the buildings unsafe in their present position," he concluded bluntly.[8]

A year later, West-Point-trained engineer I. W. P. Lewis corroborated West's assessment in an inspection report. "Tower built of rubble masonry laid up in bad lime mortar," he wrote, "walls cracked and leaking, [tower] roof soapstone, loose and leaky, woodwork rotten, whole structure out of repair."[9] Noting the rapid retreat of the bluff toward the tower, he joined Carpenter and West in recommending that the lighthouse be moved. The wheels of bureaucracy turned slowly, but they turned, and in the summer of 1846, Joseph Thaxter Pease began the preparations required to turn recommendation into reality.

The Second Stone Tower

Pease, like Thomas Cooke, Jr. before him, held the federally appointed post of Collector of Customs in Edgartown. With the office came responsibility for overseeing the Island's lighthouses and, in a more nebulous sense, of being the federal government's man-on-the-spot when one was required. Pease placed notices in three successive July issues of the *Vineyard Gazette* (which had begun publishing only two months before) calling for bids on the job of moving the tower and keeper's house a thousand feet to the southeast. He also purchased, on behalf of the federal govern-

7 Keeper West, it should be noted, still did not have a boat.
8 Wheeler, "West Chop Light," 9-10.
9 Wheeler, "West Chop Light," 11-12.

ment, a four-acre parcel of land that would be the buildings' new home: the site that Carpenter had recommended eight years earlier.[10]

The land was part of the so-called "Point Lot" that encompassed most of the tip of West Chop. It had once belonged to Abijah and Mary Luce, who had sold the federal government four acres of it—the original, now untenable, lighthouse site—for $200 in July 1817. The Luces sold the remaining thirty acres to Timothy and Elizabeth Bourne of Falmouth, who in turn sold it to James West on January 28, 1842.[11] West had been keeper of the West Chop Light for twenty-five years, but he had been buying and selling land in Holmes Hole for over forty years, and he knew a promising deal when he saw one. The lighthouse, as he knew better than anyone, had to be moved eventually, and every viable location for it to move *to* lay within the boundaries of the Point Lot. He paid the Bournes $400 for the lot and, a few days short of a year later (January 23, 1843), sold it at cost to his sons: Captains Abner West and David Porter West. It was from the West Brothers (James exercising David's power of attorney while he was away at sea) that Joseph Thaxter Pease bought the government's four acres in October 1846.[12]

The contract for the move, signed by Marshall Lincoln of Hingham on August 20, was as meticulously detailed as the 1817 original. The specification, all 1,000 words of it, detailed every dimension, every type of material to be used, and an eight-week timetable for completion. One clause gave the builder "the liberty to use all the suitable stone which may come out of the walls of the present tower in building the new one," and another made the same stipulation for the house.[13] Lincoln, in other words, had been hired to reduce the existing structure to a pile of un-mortared stones and then construct new ones, a thousand feet to the southeast, with the old stones, new wood, and new mortar. Whether the 1846 West Chop Light was thus a new structure or merely an old one, relocated—and whether there have been three lighthouses, or only two, at West Chop—is a complex problem: one perhaps better left to philosophers than historians.[14]

The fate of the 1817 keeper's house is also unclear. On one hand, Pease's

10 Wheeler, "West Chop Light," 10; the 1830 move referenced in a 1970s *Gazette* article never took place.

11 Chris Baer, "Descendants of Captain Jeruel West of Tisbury, MA," 1996. http://history.vineyard.net /jeruel2.htm

12 On May 3, 1848, the government paid David $225 for an additional two acres (probably land between the old and new lighthouse sites), plus "road privileges." The brother thus emerged from the string of deals with 12 acres of West Chop land apiece at no net cost, with David pocketing an extra $25 in cash. See Baer, "Descendants of Captain Jeruel West."

13 Wheeler, "West Chop Light," 12-13.

14 "The Ship of Theseus," *The Metaphysicist,* http://metaphysicist.com/puzzles/ship_theseus/



The stone tower and keeper's house at West Chop sometime between 1857 and 1863. The tall lantern with its domed roof, probably installed when the tower was moved and reassembled in 1846, was similar to those installed at Gay Head in 1854 and Cape Poge in 1857. The barrel-shaped fourth-order Fresnel lens is clearly visible inside.

1846 advertisement for bids clearly specifies that the job involves moving, and rebuilding, *both* the tower and the dwelling. There is, however, a persistent story that the keeper's house was given to James West's youngest son, Gustavus, who relocated it to Music Street in West Tisbury. There, according to the legend, it became—or became part of—the house owned by Frances A. "Addie" Weeks, then by William J. Block of New York, and later by Noah and Susan Block.[15] Despite its resilience, the legend makes very little sense. The dwelling was, by 1846, a leaky, rotting hovel from which only the stone was salvageable. Why would James West pay first for the stone (which was still government property) and then for the considerable labor of moving it ten miles to West Tisbury, in order to reconstruct a house where the family had been miserable?[16]

Why, for that matter, would Joseph Thaxter Pease agree to sell off a house's worth of building stone conveniently located 1000 feet from where a stone house was scheduled to be built? Pease was nothing if not frugal, as Winslow Lewis discovered to his sorrow.

Lewis, who had been supplying lamps, reflectors, and lanterns to American lighthouses since 1810, provided a new lantern for the tower at a cost of $657.50. He lobbied hard for new illuminating equipment to be installed in it (the old equipment, which he had also supplied, having been in constant use

15 *Gazette,* quoted in Wheeler. The *Gazette* lists the seller as Frances A. Weeks, and the purchaser as William Block of New York. Kraig Anderson, "West Chop Light," Lighthouse Friends, www.lighthousefriends.com /light.asp?ID=626

16 There are also no mid-nineteenth-century houses on Music Street with rubblestone walls.

for nearly twenty-five years), but Pease advised him that the old lamps and reflectors—since they were still usable—would have to do for the moment.[17] Lewis's disappointment may have been mitigated slightly the following year, when Pease wrote to say that several of the individual lamps at West Chop had failed (Lewis also held he maintenance contract for the illuminating equipment he sold). "[F]rom the state they were in when they were put into the new lantern," Lewis replied tartly, "unless some repairs have been made I should suppose not one of the lamps, by this time were fit for use." New equipment *was* installed the following year (1848), but it was well behind the state of the art in European lighthouses, where Fresnel lenses had been in use for a quarter-century. West Chop got its own fourth-order Fresnel in 1857, the same year that similar lenses were installed at Edgartown and Cape Poge. It remains in service to this day.

James West retired in 1847, the year after the move, after 30 years at the West Chop station. He was succeeded by Charles West (no relation), who remained on the job until his death on August 21, 1868. There was no official Assistant Keeper's position at the time, but his son Charles P. West had been serving unofficially in the role in order to lighten the load on his aging father. Appointed as his father's replacement, the younger West held the post for more than 40 years, retiring in 1909 as the second-longest-serving lighthouse keeper in Island history.[18]

By 1863, fifteen years after the elder Charles West took over the newly (re)built tower, it had developed the same leakage issues as its predecessor. West responded by enclosing it in a wooden framework that was then covered with boards and cedar shingles—designed to shed water like the outer skin of a house. The wood sheathing, the Lighthouse Board declared in its annual report for 1864, made the tower "much more comfortable and substantial." It also changed the tower's appearance, giving it an octagonal cross-section rather than a circular one. A new lantern, installed the same year, further altered the tower's appearance. Shorter and squatter than the one it replaced, with a roof shaped like shallow cone rather than a tall dome, it complemented (though probably by accident rather than design) the distinctly angular look that the wooden shroud lent to the tower.

The decade of the 1880s brought further changes to the West Chop station. A fog warning signal, in the form of a steam whistle, was authorized

17 Lewis to Pease, October 15, 1846 (quoted in Wheeler, "West Chop Light," 16). Lewis, the uncle of I. W. P. Lewis, frequently bid on the construction contracts for lighthouse towers and keeper's dwellings. He submitted bids for both the initial construction and the move of the West Chop Light, but lost both times.

18 Only Benjamin Huxford, keeper of the Edgartown Harbor Light from 1870-1919, had a longer career.



West Chop Light in the mid-1880s, after the construction of the large fog signal building in the right foreground, but before the addition of a second keeper's dwelling. The fog signals are the large whistles on either side of the chimney, powered by steam created by a steam plant inside.

in 1881 and installed in 1882. The whistle, in turn, needed a steam engine for power, a new well to feed its water tank, and just under 50 tons of coal a year, along with an engine house to house it all.[19] More significantly, it required the conversion of West Chop into a two-man post, with an assistant keeper to share the significantly expanded workload. A new man meant new living space, and a story-and-a-half wood-frame house was added to the site. The new house—luxurious by comparison to the old—was allocated to the keeper, and the assistant keeper assigned the stone one adjacent to the tower until it was replaced, in 1888, by a second wood-frame dwelling. As the decade closed, red glass panels were added to the harbor-facing side of the lantern, enabling mariners to tell at a glance where they were relative to the lighthouse. The choice of color reflected nautical convention: red markers for the port (left) side of a channel, green ones—like the flash of East Chop Light—for the starboard (right) side.[20]

19 Wheeler, "West Chop Light," 18.

20 Wheeler, "West Chop Light," 19-20. Left and right, that is, from the perspective of a vessel travelling toward the sea. Travelling into a harbor, the sides are reversed, which rookie navigators are taught to remember by using the mnemonic "red right returning."

The Brick Tower

Charles West, Jr. had served twenty years as keeper when the lighthouse was given its "red sector" in 1889. He would go on to serve twenty years more, and in those twenty years West Chop would see more rapid and profound change than it had in the previous century.

The booming tourist economy that had emerged in Oak Bluffs after the Civil War was, by 1889, slowly overtaking the rest of the Island was well. The seeming overnight success of Oak Bluffs encouraged scores of would-be real estate tycoons poured their savings into buying up empty land that—they hoped—they could resell to wealthy visitors eager to build a summer home on the Island. More of these schemes failed than succeeded, but among those that *did* succeed was the transformation of West Chop into a wealthy, close-knit "colony" of summer homes. The three off-Island businessmen behind the West Chop venture bought up the remains of the Point Lot, including the old lighthouse site, in 1889. They laid out streets, drew lot lines, and began drawing up plans for bathhouses, tennis courts, and a deep-water wharf where future residents could board steamers to and from the mainland without making the two-mile trek into Vineyard Haven. The lots sold, and houses of two or even three stories began to appear on them. Communal spaces—a hotel, dining room, and recreation hall—appeared, too, but it was the houses, especially the ones occupying the prime lots at the edge of the bluff, that worried the Lighthouse Board.[21] Twenty-five feet had been tall enough for



The current brick tower of the West Chop Light, after its completion in 1891 and before it was painted white in 1896. The dwelling at its base, the second of the two wood-framed keeper's houses on the site, replaced the original stone house in 1888.

21 Constance Greenough Fuller and William J. Cox, *A West Chop Chronicle, 1889-1989* (Vineyard Haven: West Chop Club, 1990).



The fourth-order Fresnel lens installed at the West Chop Light in 1857 is the only one still in active use on the Island. Photograph by, and courtesy of, Denys Wortman.

a lighthouse tower when West Chop was mostly sheep pasture. Now, the lighthouse was in danger of being obscured by summer "cottages."

The 1891 annual report of the Lighthouse Board noted the problem and described an interim solution. A seventeen-foot-high iron pole would be erected on the deck of the existing lantern, and the light moved to the top of it. The report also outlined a more permanent solution, to be undertaken the following year: dismantle the 1846 stone tower and replace it with a new, taller one. The result—the 45-foot brick tower that stands on West Chop today, the focal plane of its light 84 feet above the sea—was completed in 1892 and first lit on the last day of December. Its brick walls were left their natural color until 1896, when they were painted white in order to make the tower more visible from the sea in daylight.

Painting the tower was the last readily visible change to the light for more than a century. Lard oil gave way to kerosene in 1896 (necessitating the construction of a separate oil shed because of the danger of fire),

and electricity in 1949. A compressed-air foghorn, and a diesel engine to power the compressor, replaced the old steam-powered apparatus (and its coal pile) in 1923.[22] The Lighthouse Service was absorbed by the Coast Guard in 1939, and Coast Guardsmen supplemented—then supplanted—civilian keepers. The light was automated in 1974, the last on the Island to make the transition, but the keepers' houses (along with a separate garage added in 1935) remained not only standing but occupied. Used, for a time, as offices for the Vineyard Environmental Research Institute, they are now military housing. The one nearest the tower, built in 1888, is assigned to the commander of Coast Guard Station Menemsha; the more distant one, built in 1882, is available as vacation housing for members of any branch of the military.[23]

The automation of the West Chop Light brought an end to the tours of the station once offered by obliging keepers, but the other changes were all but invisible to the public. The foghorn, once triggered whenever visibility on the sound dropped below a certain level, is now an on-demand signal that passing vessels can trigger by radio. The light is still there, its electric beam shining through the prisms of the Fresnel lens: a lens designed two centuries ago, warning mariners of submerged hazards left behind ten thousand years in the past.

22 *Annual Report of the Commissioner of Light-Houses to the Secretary of Commerce for the Fiscal Year Ended June 30, 1923* (Washington: US Government Printing Office, 1923), 48.

23 Anderson, "West Chop Light."

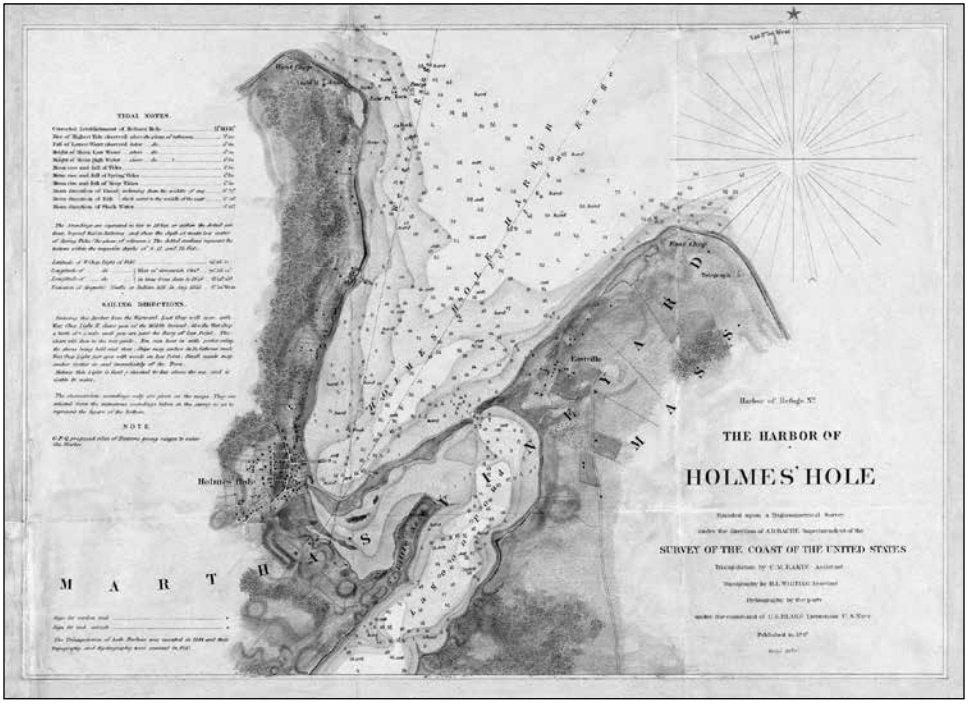
Holmes Hole Light (1855-1860)

It must have seemed like a good idea at the time.

Edgartown, after all, had a lighthouse at the head of *its* harbor. It stood just offshore from Starbuck's Neck, erected on an artificial stone island a quarter-mile from the beach, and its fourth-order Fresnel lens flashed a bright white light out to sea. Mariners travelling through Nantucket Sound and wanting to pause for a night—or longer—in Edgartown used it as a beacon to guide their passage up the ever-narrowing cone of water that formed the outer harbor. Homing in on the light, they could steer a safe course between two potential hazards: Cape Poge and the shallows beyond to the east and, to the west, a broad expanse of shallow water extending equally far north, known to modern-day sailors as "The Flats." The harbor at Holmes Hole, the reasoning must have gone, was similar Edgartown's, and more heavily used. Why shouldn't it, too, have a lighthouse to guide sailors to the anchorage at its southern tip?

Money was duly appropriated by Congress, a site chosen, and land acquired. Plans were drawn, modified, and given form as wood, iron, and glass structures that were, in turn, modified again before being declared "useless" and decommissioned. The entire process ran its course within a single decade: the 1850s . . . a startling display of alacrity for a Lighthouse Board that, for the thirty years that James Shaw West was keeper of the West Chop Light, never acted on his requests for a boat with which he could render aid to mariners shipwrecked below the lighthouse.

The Holmes Hole Light, as it was known during its brief career, was the fifth lighthouse built on Martha's Vineyard, and the only one to be abolished. It was operational for a little more than five years, during which time it was supervised by only two keepers. After it was decommissioned, it stood empty and unused for another two decades before another branch of the federal government—the Marine Hospital Service—took control of it and added an im-



An 1847 Coast and Geodetic Survey chart of Holmes Hole, showing the positions of the proposed range lights: Two on the bluff overlooking the Lagoon and one on the barrier beach separating the Lagoon from the harbor.

probable second act, much longer than the first, to its life. It became the Vineyard's first purpose-built marine hospital: a precursor, then an adjunct, to the majestic 1895 structure that now houses the Martha's Vineyard Museum.

The "Bug Lights," 1855-1857

The Thirty-Second Congress of the United States, in session during the last two years of Millard Filmore's presidency, convened for the first time at the beginning of March, 1851. Its legislative record was unproductive (only 79 bills forwarded to the president in two years) and undistinguished, but one of its first acts, undertaken on its first day in session, was to appropriate $3,500 for the construction of "a lt-ho. [lighthouse] at the head of Holmes' Hole Harbor."[1]

The work of assessing just *where* in the harbor the lighthouse should be located was delegated to Lt. Charles H. McBlair, a naval officer seconded to the U. S. Coast Survey and, in the summer of 1851, serving as commander of the survey steamer *Bibb*. Writing to his civilian boss, Superintendent Alexander Dallas Bache, in a report dated July 13, McBlair recommended building

1 "Lighthouse Board Notes: Holmes Hole Beacons," in Vertical File 1116 ("Holmes Hole Lighthouse")

not a single lighthouse but a set of three range lights—"bug lights," as they were called on the Vineyard and Nantucket—instead. The principal danger to ships entering Holmes Hole Harbor, McBlair explained, came from the rocks and shoals off Low Point, just southeast of West Chop Light. The tree line was set well back from the shore there, he explained, and mariners rounding West Chop in the dark frequently mistook it for the edge of the land and strayed too close to the beach. The lights he proposed "would furnish two well-defined ranges, the object of one of which is to guard against this danger, while the other shows the mid-channel and the best water along the entire harbor." Holmes Hole, he noted, was used as a "port of refuge" by vessels travelling through Vineyard Sound, and "the adoptions of these or similar improvements would add security of life and property."[2]

The lights, McBlair told Bache, houses sheltering the light, he continued, "might be frame structures, similar to those erected for the small lights, called bug lights, of [Nantucket]. Buildings of this description would be most economical, and answer every purpose. They would be placed in such immediate vicinity to the village that a dwelling for the keeper may not be necessary."[3] Nor would the lights themselves need to be particularly bright. Visibility at a range of four miles would be sufficient. Bache forwarded McBlair's letter to W. L. Hodge, the acting Secretary of the Treasury, on July 19, with a cover letter of his own, fully endorsing the substitution of three bug lights for a conventional lighthouse and noting that they "can probably be put up within the appropriation made by the act of Congress."[4] Bache included both letters in the annual report of the Coast Survey for 1852, along with one by a colleague of McBlair—Lt. Samuel Swartwout of the survey steamer *Washington*—dated September 4, 1851. Swartwout, expansive where McBlair was restrained and precise, invoked "the expediency and necessity" of the lights for "the protection of our commerce," and alluded darkly to the "many disasters and shipwrecks which occur annually for the want of them."[5] Congress was swayed—whether by McBlair's precision, Swartwout's melodrama, Bache's eye on the bottom line or a combination—and voted on August 31, 1852, to reallocate the $3,500 to "the erection of three beacons" at Holmes Hole Harbor.[6]

The 1854 annual report of the Lighthouse Board duly noted that sites for the Holmes Hole Beacons (to give them their official name) had been chosen, land acquired, and proposals received, but that no contracts had been let and no monies expended on construction. The following year's

2 McBlair to Bache, July 16, 1851. In Coast Survey 1852, p. 467.
3 McBlair to Bache.
4 Bache to Long, July 19, 1851. In Coast Survey Report, p. 466
5 Swartwout to Bache, Coast Survey 1852, p. 455
6 "Lighthouse Board Notes: Holmes Hole Beacons."



The Nantucket harbor range lights were known locally as "bug lights" because their relative dimness reminded mariners of lightning bugs. The same term was later applied to the range lights installed at Holmes Hole.

report noted that "the three beacon-lights were completed and lighted on the 4th of December, 1854."[7] No images of the Holmes Hole bug lights have survived—they may have been in existence so briefly that no images were made—but the Brant Point bug lights on Nantucket, mentioned by McBlair in his letter to Bache, give a sense of what Congress got for its $3,500. They are modest buildings, proportioned like short windmill towers with a shuttered alcove at the top of the front wall, in the space usually occupied by the protruding horizontal shaft around which the windmill's vanes (or "sails") rotate. The alcove housed the oil lamp that provided the light, protecting it from rain and wind—and allowing the beacon to shine in bad weather, when it might be most needed. The keeper would open the shutters and light the lamps each night, then reverse the process—dousing the flame and closing the doors—each morning.

Matthew P. Butler—a 44-year-old butcher from Farmington, Maine who had settled in Tisbury and married Martha Allen of Chilmark—was appointed the first keeper of the beacons in 1854, presumably at the same annual salary ($350) that was offered to other Vineyard keepers.[8] Lieutenant McBlair had expressed the belief that the keeper would be able to maintain the lights while living in the village (saving the government the expense

7 "Lighthouse Board Notes: Holmes Hole Beacons."

8 Banks, *History of Martha's Vineyard,* vol. II, Annals of Tisbury, p. 66; 1850 Census of Tisbury

of a dedicated keeper's house), but this evidently proved not to be the case. A note in the 1855 report of the Lighthouse Board noted that the "light-keeper's dwelling-house is nearly finished," and a later note announced its completion on July 20, 1855. A two-story, wood-framed, clapboard building, it was located on a bluff with a commanding view of the western arm of the Lagoon and the harbor beyond. No match, in size or spaciousness, for Captain Richard Luce's fine new home on William Street, or the Colonial-era "Great House" on the waterfront, it would have been larger than the average Holmes Hole residence of its day—a far cry from the damp and drafty stone cottage to which the keeper of the West Chop Light was consigned.

Whether Butler ever lived in the new keeper's house is unclear. He had, by the end of September and perhaps earlier, been replaced by the lights' second (and, as it turned out, final) keeper: Captain Moses T. Cromwell. An Englishman from the village of Northwold, a hundred miles northeast of London, Cromwell came to Tisbury around 1812, aged 27, and married Jedidah Coffin the following year. The 1850 census lists him as a mariner, aged 64, but by then his seafaring days were likely all but behind him. The keeper's job, to which he was appointed at the age of 69, would have been a comfortable sinecure for his old age, coming not only with the new house, but with a salary of $400 as opposed to the more usual $350.[9]

The bug lights at Brant Point appear to be of differing heights, and Lt. McBlair recommended a similar arrangement for Holmes Hole, with the further stipulation that one of them be red rather than white. As eventually built, the three lights were three different colors: a central tower showing a white light flanked by two other towers—one with a red light, one with a green light—that displayed their lamps at heights equal to each other but different than the central white light. A notice to mariners describing the new lights (drawing on the Lighthouse Board's own description, which in turn replicated the wording of McBlair's original report) explained the uses of such an arrangement early in 1855.

> In entering from the westward give the West Chop a berth of about half a mile until you get the white light on with the red, then run for the anchorage. In entering from the eastward give the East Chop a berth of about half a mile, and you may follow it around until the white light is on with the green, but the best anchorage is . . . to the westward of that line.

9 Banks, *History of Martha's Vineyard*, vol. II, Annals of Tisbury, 66; 1850 Census of Tisbury; US Civil Service Commission, *Official Register of the United States for 1855*, 28 [in VREF 1116.001]. Cromwell's son, Benjamin Coffin Cromwell, became famous (and wealthy) as captain of the *Monohansett* and other Island steamers. He married Abbie Bradford Luce, daughter of one of Holmes Hole's most successful whaling captains (Richard G. Luce), and built the mansion—known for its expansive lawn and wrought-iron fence—at 108 William Street.

> The white (or leading) light on with the red (or eastern) light clears the rocks off Low Point.
>
> The white light on with the green (or western) light divides nearly the hard from the soft bottom of the harbor, and leads through the deepest water to the inner harbor.[10]

Mariners reading the notice would have understood "on with" to mean "aligned vertically with." By adjusting their course to the left or right until the proper pair of lights—red and white for those rounding West Chop, green and white for those rounding East Chop—lined up with one another, they could sail safely up the harbor even in the dark.

The Lighthouse, 1857-1860

Three years after they were put in place, the Holmes Hole beacons had become an established aid to navigation, The eighteenth (1857) edition of Edmund Blunt's *American Coast Pilot*—a mariner's reference book that described the "principal harbors, capes and headlands on the coasts of North and South America," and contained detailed descriptions of lighthouses, beacons, rocks, shoals, and currents—dispensed with the elaborate directions given by the Lighthouse Board in favor of a more succinct statement that "red and white lights range for the West entrance; green and white lights range for the East entrance."[11]

Soon after publication—and perhaps even before—Blunt's description was obsolete. The tri-colored beacons, though ingenious in concept, were apparently a disappointment in practice. No assessment of them by the Lighthouse Board or its agents appears to have survived, but the benefit they provided to mariners may have been judged not be worth the extra cost of maintaining and operating four separate structures (the keeper's house and three light towers). The Gay Head, West Chop, and Cape Poge Lights, by contrast, had only a house and a single tower to take care of, and one lamp to attend to. The Edgartown Harbor Light was even simpler: It combined tower and dwelling into a single structure, with the lantern holding its lamp and lens projecting from the roofline of the keeper's house, and reached via a ladder in the attic. The additional maintenance work required by the four structures at the Holmes Hole station, and the need to tend not one but *three* lights, may have accounted for Moses Cromwell's extra $50 of salary.

A lantern was installed in the roof of the keeper's house in 1857, and fitted with a fourth-order Fresnel lens giving off a steady white light—a "substitute," the Lighthouse Board's annual report for that year declared, "for the

10 "Holmes Hole Beacons," *The Geographical and Commercial Gazette,* vol. 1, no. 1 (January 1855): 8.

11 Edmund M. Blunt, *The American Coast Pilot*, 18th Edition (New York: E. and G. W. Blunt, 1857): 269.



Unlike the Edgartown Harbor Light, built a generation earlier, the Holmes Hole Light was originally designed as a conventional house, with the lantern, lamp, and lens added later.

three lights designed for ranges into the harbor." The "bug lights" were no longer lit once the new rooftop beacon was placed in service, and the Board's 1858 report lauded the change for "giving increased efficiency to the light station, and at a considerable saving of annual supplies."[12] Having one light, rather than three, to tend (and that conveniently located in the attic of his own house) doubtless made Cromwell happy as well, though his pleasure may have been mitigated by the resulting reduction in salary. He was paid $350—the same as the Vineyard's other four lighthouse keepers—in 1859."[13]

The Board, however, was not yet done with the Holmes Hole station. A March 3, 1859 act of Congress gave it the power to recommend the "discontinuation" of "such lights as may have become useless by reason of mutations of commerce, changes of channels of harbor, and other causes," and at its meeting on September 18 of that year, the Board exercised that power with respect to the Holmes Hole Light. "It is therefore ordered and directed," the Board's notice to mariners declared, "that the aforesaid light be discontinued on and after the 1st day of December."[14] The notice gave no

12 "Lighthouse Board Notes: Holmes Hole Beacons."

13 US Civil Service Commission, *Official Register of the United States for 1859*, np [in VREF 1116.001].

14 "Holmes Hole Beacon Discontinued" (1859) [in VREF 1116.001]

specific reason, but whatever the reason was, it fell under the elastic heading of "other causes;" neither the tempo of ship traffic through Vineyard Sound nor the contours of Holmes Hole Harbor had changed substantially since the light had been approved. More likely, the light itself had simply turned out to be superfluous—a minor benefit to some mariners, perhaps, but not useful enough to justify the expenditure of $350 for a keeper (and varying additional amounts for supplies and maintenance) each year.

The 1860 annual report of the Lighthouse Board offered a terse epitaph: "The light at Holme's Hole, having been deemed useless, was discontinued on the 1st December last." The Vineyard's shortest-lived light station had been in operation for three days short of five years.

The Marine Hospital, 1879-1952

F. Scott Fitzgerald famously declared that "there are no second acts in American life," but the Holmes Hole Light building enjoyed a second act longer, more productive, and more illustrious than its first. A long intermission—a few weeks short of twenty years—passed between the two acts, and virtually nothing is known about what happened to the building during that time. The one concrete fact comes from a single line of text in the 1872 Lighthouse Board annual report: a statement that "the lantern has been taken off and stored at the Wood's Hole Depot."[15] The fourth-order Fresnel lens, an expensive and nearly new piece of equipment, had presumably been removed soon after the discontinuation of the light, for use elsewhere, but there is no record of it. What happened to Keeper Cromwell (then 75 years old) is also unrecorded, but since he and his wife died within ten days of each other in March 1861, it's possible that they were still living in the former lighthouse and paying a nominal monthly rent to the Board.

The same 1872 notice that describes the removal of the lantern from the roof states that the land, keeper's house, and outbuildings were "disposed of at public sale." Seven years later, however, in the fall of 1879, the building was acquired by the Marine Hospital Service with a speed and ease that suggests an inter-agency transfer of government assets, rather than the repurchase of former government property that had been in private hands for seven years.

Established by an act of Congress in 1798, the Marine Hospital Service was the federal government's first experiment with group health insurance. It maintained a network of facilities in major American ports specifically for the care of sick and injured American sailors,

15 Presumably an equipment depot used by the Board to house such large, bulky objects—a forerunner of the Coast Guard buoy maintenance station that overlooks Little Harbor today—but conceivably a freight shed at the Old Colony Railroad depot, established in 1872.



Converted into a US Marine Hospital in 1879, the former Holmes Hole Light served in that role for fifteen years, more than three times as long as it operated as a lighthouse.

who supported it through small sums deducted from their monthly wages and collected through the network of Customs Offices operated by the Treasury Department. The facilities ranged from large, modern hospitals to structures no bigger than a house, like the one opened at the north end of the Lagoon in 1798. Located in Eastville, now a neighborhood of Oak Bluffs but then part of Edgartown, the first Marine Hospital on the Vineyard closed in the mid-1820s. It was replaced, for more than fifty years, by the "farming-out" system, in which the Marine Hospital Service contracted with a local physician to care for sick and injured sailors in exchange for a per-patient stipend intended to cover not only the doctor's customary fees but also room, board, and nursing care—all of which he was expected to arrange.

Dr. William Leach of Tisbury established a new facility—residence, offices, and patient rooms under one roof—on the Edgartown-Holmes Hole road in 1866. It became known as "Dr. Leach's Marine Hospital," but it was neither built nor directly funded by the MHS. Leach may have built it as a speculative venture, anticipating that it would draw local patients to his practice and encourage the government to award him the Marine Hospital Service contract. If so, his investment paid



After the larger, purpose-built US Marine Hospital that now houses the Museum opened in Vineyard Haven in 1895, the old lighthouse building was moved to the rear of the site, where it served for nearly sixty more years as housing for nurses and other hospital staff.

off: He was granted the contract in 1866, and held it until 1879. Sailors who died at the facility and had no local kin to bury them were interred on the property in an informal "Sailor's Burying Ground" like the one alongside the 1798 facility at the Lagoon.[16]

The end of Leach's contract—and of the farming-out system of treating sick and injured sailors on the Vineyard—coincided with a visit to the Vineyard by John B. Hamilton, newly appointed Surgeon General of the United States, in 1879. Whether he found Leach's facility to be of substandard quality, or simply inadequate for the volume of shipping that passed through Vineyard Haven (and thus the number of patients that came ashore there), Hamilton ordered construction of a federally funded hospital in the port, to be staffed by Marine Hospital Service doctors. The former Holmes Hole Light building—still standing, evidently in good repair, and convenient to the wharves at the head of the harbor—was pressed into service and fitted out as a Marine Hospital, opening in late November of

16 A few gravestones near the Shellfish Hatchery still mark the burying ground of the 1798 hospital, but the wooden markers that marked the graves near Dr. Leach's hospital were lost, and the locations of the graves themselves unknown until 40 of them, arrayed in neat rows, were unearthed by a West Tisbury contractor in 1995 (Chris Baer, "Skeletons," *Martha's Vineyard Times,* April 25, 2018).

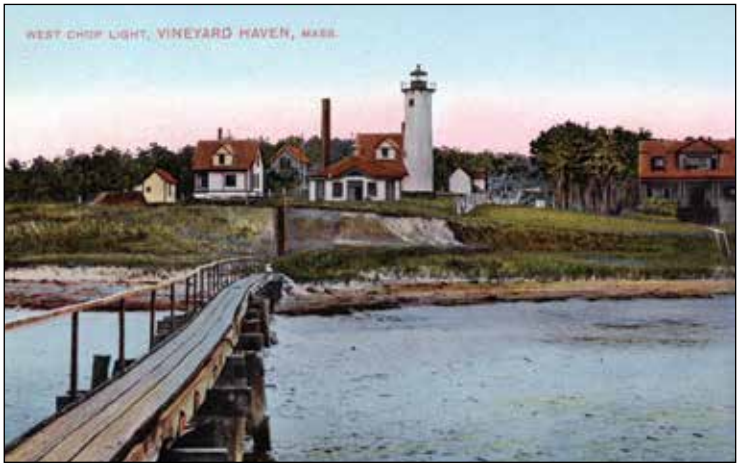
that year.[17] The addition of the so-called "Pavilion Wing" in 1885 nearly doubled its size, and it remained in service in that configuration until replaced by a modern, purpose-built facility—now the Martha's Vineyard Museum—that opened in December 1895.

When the 1895 Marine Hospital opened, the Pavilion Wing was separated from the old lighthouse building and attached to the rear of the new facility as a wing. It housed the kitchen, dining hall, and other service-related functions until 1938, when it was demolished and replaced by a two-story brick-and-concrete addition that was, itself, demolished in 2018. The lighthouse building was moved to the rear of the property, and repurposed as a dormitory for the hospital's (then all-male) nursing staff. After the closure of the hospital in 1952, it gradually fell into disrepair. Former campers at the St. Pierre School of Sport, which operated out of the 1895 Marine Hospital from 1959 to 2007, remember the old building as being strictly off-limits because of its decayed condition.[18] It was demolished in the 1970s, erasing the last trace of a well-intentioned, but ultimately superfluous, aid to navigation.

17 Union Wharf and Norton and Bradley's Marine Railway (now, respectively, the Steamship Authority terminal and the Martha's Vineyard Shipyard) were within easy reach of the site. The wharves on the West Chop shore, though a mile away, were linked to it by Main Street and the similarly distant ones on the East Chop shore by Beach Road and the still-new Lagoon Pond Bridge, completed in 1873.

18 The warnings were not always heeded. Former camper Chris Baer has a permanent scar from a cut sustained on one illicit visit to the building (personal communication, 2019).







The Weisman Postcard Collection, donated to the Museum in 2017, contains hundreds of portraits of Vineyard lighthouses, of which these are a small fraction.

151 Lagoon Pond Road
Vineyard Haven, MA 02568

MVMUSEUM

Martha's Vineyard Lighthouses, Part 1



Before electrification and automation, lighthouses were surrounded by storage sheds, oil houses, outhouses, and other small buildings, as shown in this photograph taken at Gay Head in the late 1890s.