### The Green Mountain Railway:

Bar Harbor's Remarkable Cog Railroad by Peter Dow Bachelder

Cadillac Mountain: A Coastal Landmark

At 1,532 feet above sea level, the summit of Cadillac Mountain is the loftiest spot on Mount Desert Island. Moreover, it holds the distinction of being the second highest point on the immediate western shores of the Atlantic Ocean. Only 2,310-foot Mount Corcovado, at Rio de Janeiro, Brazil, is taller.

For as long as mariners have sailed the Maine coast, Cadillac's broad profile has been a welcome landmark. Long before the first lighted aids to navigation, ships along the transatlantic route crossing the Gulf of Maine guided on its prominent peak, which in clear weather is visible 35 to 45 miles offshore. For centuries, countless coasting vessels have found its presence helpful, if not downright indispensable.

Mention of Mount Desert Island (MDI) occurs early in recorded history. Samuel de Champlain's 1607 map denotes it as "I. des Monts deserts" (island of the barren mountains). Massachusetts Governor John Winthrop's Journal of 1630 contains the first known sketches of the island, made June 8 when he sighted its higher peaks slightly more than 35 miles to the northwest, while sailing between Cape Sable, Nova Scotia, and Salem, Massachusetts.2 During the mideighteenth century, references to MDI began to appear in atlases and sailing directions and on marine charts. The 1706 Mount edition of The English Pilot, The Fourth Book, part of a much-used British sea-atlas published from 1671 to 1803, includes it, as do all succeeding versions.3 In 1765, the Massachusetts General Court had the entire Maine coast surveyed and afterward brought out a map depicting an accurate outline of MDI and the neighboring islands.4 In 1772, engineer and hydrographer Samuel Holland, official British surveyor of the U.S. coast north of the Potomac River, made a series of charts of the Maine and New England coasts, including ones showing MDI.<sup>5</sup> They subsequently appeared in British Army engineer Joseph F.W. Des Barres' monumental Atlantic Neptune, an immense collection of painstakingly detailed navigational charts

embodying much of the east coast of North America.6

Although the name "Mount Desert Island" has deep roots, the earliest records identifying Cadillac Mountain occur much later. In John & James Peters" Survey of the De Gregoire half of the Island, 1807, it appears as "Bauld." New York lawyer Charles Tracy, in the diary of his family's 1855 visit to MDI, called it "Newport" (also a former name for nearby Champlain Mountain). By the 1860s, "Green" had become widely accepted, showing up on Henry Francis Walling's 1860 Topographic Map of Hancock County, as well as in two early, popular guidebooks: Clara Barnes Martin's Mount Desert on the Coast of Maine, originally written in late 1866, and Benjamin F. DeCosta's 1871 Rambles In Mount Desert, During the creation of Lafayette (later Acadia) National Park, of which the mountain is an integral element, "U.S. Board of Geographic Names" in 1918 decided that, in keeping with local historical ties, "Cadillac" was a more appropriate designation and so renamed it. Area residents were slow to accept the change. An early 1931 readers' poll in the weekly Bar Harbor Times revealed that 98 percent of the participants still preferred "Green."7

#### Earliest Visitors to Cadillac's Summit

Native Americans were arguably the first people to visit the top of Cadillac Mountain. The early natives typically arrived at the summit via the gently sloping north and south ridges, rather than the steeper east and west faces. They were not interested in a challenging climb, desiring only to reach their destination without damaging the landscape, which they revered. They likewise preferred to avoid obstacles, rather than harm them, and would go out of their way to do so.

The ancient aboriginal trail along Cadillac's north ridge followed much the same route as the subsequent, mid-nineteenth century buckboard road, which commenced at the Eagle Lake Road, passed just west of the top of Great Pond Hill, then slightly east of The Whitecap, the two most prominent eminences along the sprawling flank. Over the final mile, the primitive path straddled the granite-capped ridgeline as it angles upward roughly 500 feet to the summit.

#### The U.S. Coast Survey

In 1807, President Thomas Jefferson created the Survey of the Coast, a federal agency mandated to-among other scientific responsibilities-chart and map the country's coastline. Renamed the U.S. Coast Survey in 1836, the unit achieved its most notable accomplishments under the leadership of its second superintendent, Alexander Dallas Bache, who assumed control in 1843. Under Bache's direction the necessary field work took place that paved the way for mapping the coast of Maine.

One of the preliminary steps in the Coast Survey's charting process involved selecting sites for primary triangulation stations, where accurate measurements of distance and direction could be determined. One of the requisites for each location was that it have a direct line-of-sight to surrounding stations. Much of the primary triangulation in Maine was carried out at the summits of mountains, which were almost ideally suited for the work and allowed observations across greater distances than were possible elsewhere along the east coast.<sup>8</sup> Cadillac (then Green) Mountain at Bar Harbor was among more than a half-dozen similar spots selected.

During the summer of 1853, Coast Survey specialist Thomas McDonnell led a crew that carved out a primitive road to the summit of Green Mountain, up which a team of horses could haul equipment and materials. Richard Hamor of Bar Harbor was hired to build "in a sheltered place near the top...(a) house 10 x 12 square, & 9 feet high of boards battened with 3 x 1 inch battens on the roof and sides, floored with table & 2 bunks inside, to have one window with 8 lights and a sliding shutter or deadlight outside to secure it." Hamor was paid \$50 for his effort. The rude hut served to shelter Coast Survey workers and provided a place for their gear and provisions.

On August 6, 1853, Charles O. Boutelle, one of Bache's assistants, established a working signal for "station Mount Desert" (as contemporary Coast Survey documents refer to it), set atop a tall, skeletal wooden tripod. Above the crotch of the spruce framework, reinforced by 27- and 30-foot braces, rose a 17.5-foot pole, painted black with a four-foot white band slightly more than halfway up.

At the apex of the slender column, a rotating tin signal reflected sunlight and directed it toward a given distant point. <sup>10</sup> Coast Survey personnel utilized the Green Mountain location on a seasonal basis through 1860, when its established function was no longer necessary. The site continued to be used as late as 1865, principally for secondary triangulation purposes in connection with the creation of hydrographic charts of Frenchman Bay.

#### The Mountain House

In 1866, prominent Hulls Cove lumber baron and shipbuilder Daniel Webster Brewer built a small hotel atop Green Mountain, on property he had acquired from his father, Edward, in 1857. Following a portion of the 1853 government trail, Daniel constructed a passable buckboard road to the summit, where he operated what travel writer Benjamin F. DeCosta's *Rambles in Mount Desert* guidebook describes as:

...a rough-built structure, thrown together on the umbrella principle, with all the framework showing on the inside, being braced up without by light timbers of spruce planted in the rock to enable it to withstand the heavy gales. The little parlor in the center is flanked by the dining-room, and a couple of dormitories, while overhead, in the loft, a double tier of berths is arranged, steamboat fashion...<sup>[1]</sup>

Referred to in early deeds as the "Mountain House," the simple lodging was also variously called the "Green Mountain Hotel," the "Green Mountain House," and the "Tip Top House." D.H. Swan managed the property during the early 1870s and reported that in the summer of 1874, some 3,000 people visited the mountaintop. After Swan decided to run the Hamor House in Bar Harbor, the Mountain House continued to operate, although not always on a regular basis. In 1882, A.M. McQuinn kept the place, registering 1,900 visitors that season.<sup>12</sup>

### The Winds of Change

Over the years, Daniel Brewer's buckboard road deteriorated to the extent that, by the early 1880s, some stretches had become almost impassable. At the same time, summer visitors to Mount Desert Island were swelling the local population many times over, and the

lure of Green Mountain was annually attracting thousands most of them climbers. During the summer of 1882, the Mount Desert Herald, Bar Harbor's pioneer newspaper, periodically mentioned Green Mountain's popularity. On Friday, August 5, one of its local interest items pointed out that on the previous day, more than 100 people had enjoyed time at the summit. Two weeks later, a similar account indicated that 250 had done so on the 11th.13 To those with an interest in the island's burgeoning recreation industry, it was becoming increasingly apparent that the mountain could be the island's premier tourist attraction, if only there were an easier way to reach the top. One of these was a far-sighted Bangor man, whose dreams included making MDI accessible to the world and Green Mountain a must-see spot once they arrived. An unknown to most island residents in 1882, within a year the name Francis Clergue would not only be familiar, but the most talked about-and controversial-in the community.

### Francis Hector Clergue

Francis Hector Clergue was born August 28, 1856, in Brewer, Maine. His father, Joseph Hector Clergue, had emigrated from Lorient, France, around 1851 and settled in the Bangor area, becoming a successful hairdresser and wigmaker. His mother, Frances Clarissa Lombard, came from a family with deep Maine roots; her father was David Sawyer Lombard, a renowned master shipbuilder. Francis was the eldest of eight siblings-three boys and five girls-including a sister who died in infancy.

After graduating from Bangor High School in 1875, Frank (as he was typically called during his adult years) enrolled at Maine State College (today's University of Maine) in Orono, but dropped out after a year and a half. In 1877, he wrote to Maine Senator Hannibal Hamlin, imploring the powerful politician to give him a position as private secretary in the latter's Washington office. The letter went unanswered. Undaunted, Clergue became a clerk in the law office of Frederick M. Laughton in Bangor, where practical experience and self-education helped him get admitted to the Penobscot County bar in 1878 and led to his becoming a partner in Laughton's firm. In 1882, he was named Bangor's City Solicitor.

Despite the early accomplishments, Frank Clergue became disenchanted with legal work, finding it interesting and challenging, but far too mundane. A resourceful person, Clergue was highly energetic; one family member described him as "a dynamo." He was also a man of great insight and vision and would eventually champion a long string of speculative ventures that were his real consuming passion.

Clergue was able to succeed as he did because he demonstrated more than just creativity and foresightedness. He likewise possessed undeniable charisma and powers of persuasion, enabling him to repeatedly convince others less perceptive than he to invest in one grand proposal after another. Before the close of the nineteenth century, Clergue would become involved in more than a dozen spectacular schemes, albeit nearly all were financial failures. Although some might call him a romantic-and a reckless one, at that -it is apparent he was as eager to see his plans developed and put into practice as to merely visualize them. It was simply that the fiscal implications of his actions mattered less to him than their actual achievement.

One of Frank Clergue's early fascinations was the generation and transmission of electric power, most notably with methods of harnessing it for industrial and commercial use. One application that particularly intrigued him was urban transportation - more specifically, an electric railroad. Clergue was apparently drawn to early experiments in this field by the prolific inventor Thomas A. Edison, best known for the development, in 1879, of the first commercially practical incandescent lamp. While not the electric railroad's creator, Edison made several functional refinements to the basic concept between 1880 and 1882, before stopping further work for lack of support. It would be Connecticut-born Frank J. Sprague who created the prototype that soon made the entire idea functional. Sprague, a short-term Edison employee, ultimately developed a successful system of electric traction that led to the first citywide, electric street railway system in the United States, at Richmond, Virginia, in the spring of 1888.

Although his role in the project has largely been overlooked, Frank

Clergue was the first to advocate the idea of an electric street railway in Bangor, as well as the need for a hydroelectric plant to generate sufficient power for its widespread use. He was instrumental in persuading his law partner (and 1875 Bangor mayor) Frederick Laughton, with a circle of Laughton's influential business associates, to pursue the organization, in 1885, of the Bangor Electric Power & Light Company, followed, in 1890, by the establishment of the Veazie Hydro Station, on the Penobscot River, just above Bangor. He Before the inception of any of these pioneering endeavors, however, Clergue had formulated and laid the groundwork for an even more sensational undertaking-the creation of an electric railway on Mount Desert Island, spearheaded by the construction of a cog railroad up the rugged granite slopes of Green Mountain.

#### Clergue's Plan Unfolds

Customarily, entrepreneurs with bold new plans announce them with the greatest possible fanfare and gusto. The strategy is to draw all possible attention to the venture and gain the public's immediate, ongoing interest and approval. Such was not the case with the beginnings of Frank Clergue's MDI railroad project, the unveiling of which was at least a partial-and not an especially welcomesurprise for most area residents. When word did come, the earliest particulars were scanty, and additional details appeared only sporadically, at least until proposals for actual work on the cog railroad appeared in the local newspaper. The December 7, 1882, issue of the *Mount Desert Herald* carried the following tidbit in its "News of Bar Harbor..." column: "It is said that a party of capitalists have taken the preliminary steps for building a railroad from Bar Harbor to Green Mountain, and also contemplate the erection of a large hotel at the summit. Wonder who they are."

The paper's suppositions were true, as more specific news a month later confirmed. In early January 1883, the *Herald* carried word that "two gentlemen from Bangor...are surveying Green Mountain for a projected railroad." The piece concluded with the editorial comment: "...we sincerely regret that our own people should let chances like these slip them and pass into the hands of outsiders."

At this point, the *Herald* had not yet fully grasped most islanders'

(and non-resident property holders') real sentiments on the matter. Their chief concern was not that intruding "outsiders" would seize the opportunity to capitalize on such a bold undertaking; they were simply opposed to its very existence in the first place. And they would ultimately make these feelings altogether evident.

Local reaction aside, as additional information regarding Frank Clergue's railroad project emerged, it soon became quite obvious the plan was well conceived, had received strong financial backing, and was already well on the way to becoming a reality. Clergue formed the Green Mountain Railway Company (GMR) and had it incorporated on November 23, 1882, with capital totaling \$90,000. The major investors, mostly Bangor businessmen, included: Payson Tucker, president of the (Eastern and) Maine Central Railroad; C.F. Bragg; F.W. Goodwin; Sumner Laughton; Charles V. Lord, president of the Veazie National Bank; and Gen. Mumford, of New York. William B. Hayford of Bangor was named company president, with Frank Clergue appointed secretary, treasurer, and superintendent. The board of directors, all from Bangor, were: Charles Lord; Frederick Laughton, later to become president of the Bangor Electric Light & Power Company and the Bangor Street Railway; Frank W. Cram, superintendent of the European and North American Railway; and Thomas N. Egery, co-owner of the Hinckley & Egery Iron Works.15

# A New Hampshire Inspiration

To some, the concept of a mountain-climbing locomotive might have seemed preposterous, except for the fact that the mechanics of it were already a reality and being successfully employed in New Hampshire, thanks to Granite State native and entrepreneur Sylvester Marsh. One of eleven children growing up in Campton, in the central portion of the state, Marsh left home at the age of 19 and walked to Boston, where he worked at various jobs in the packaging trades. Going on to Chicago in 1833, he amassed a fortune in the meat-packing business and gained further acclaim after discovering a way to keep grain-particularly corn-from spoiling while in long-term storage.

Determined to slow the hectic pace of his busy life and enjoy more

time with his wife and four children, Marsh retired to New England in 1855 and settled in Massachusetts. In August 1857, he spent time hiking with a friend in New Hampshire's White Mountains. On the upper slopes of Mount Washington, the pair encountered a sudden, savage storm that almost cost them their lives. Freezing rain, hurricane-force winds, and early darkness nearly kept the two climbers from reaching the welcome shelter of the summit's 1853 Tip Top House. Badly shaken by the experience, Marsh resolved to find "some easier and safer method of ascension" to the pinnacle of New England's mightiest mountain. His solution would be revolutionary-a mountain-climbing locomotive!

Sylvester Marsh knew that smooth, round locomotive wheels could not grip conventional rails well enough to drive an engine up anything more than a slight grade. Adapting a concept originally developed in 1812 by Englishman John Blenkinsop, Marsh received, in 1861, a patent for a locomotive fitted with a central cogwheel that turned in a toothed, central rail. A ratchet attached to the cog kept it from rotating backward during the locomotive's ascent, while a gripper beneath the central rail prevented the cog from disengaging. Three years later, he obtained an additional patent for an air brake, necessary to slow the train during its descent. Following further refinements to the cog rail and repeated tests with a working model, Marsh felt ready to put his remarkable invention into practical use.

Beginning in April 1866, Sylvester Marsh supervised crews in constructing a 2.8-mile rail line up Mount Washington's western slopes. Consisting of a wooden trestle supporting the central and outer rails, the railway averaged a 25 percent grade while climbing the 3,625 vertical feet from the Marshfield base station to the 6,288-foot summit. The first train to reach the top arrived July 3, 1869, and the pioneering Mount Washington Cog Railway (MWR) was born. 16

## Determining the Railroad's Route

Aware of MWR's immediate popular appeal, Frank Clergue was determined to establish a similar venture at Bar Harbor and make it -with Green Mountain-the area's premier tourist attraction. He was

fully aware of Bar Harbor's recent meteoric rise as a travel destination, as well as the fact that during the previous five years, several thousand people had annually trekked to Green Mountain's summit. He reasoned the numbers would increase dramatically once his railroad was in business.

On January 22, 1883, Clergue negotiated a 20-year lease with Daniel Brewer, Perry Brewer, and Orient W. Carpenter for 200 acres atop Green Mountain, plus a perpetual right-of-way for a 96-foot-wide strip, from the base to the top, at a location of his choosing. As part of the deal, Clergue also acquired: (1) a 40-foot-wide right-of-way for horses, carriages, foot passengers, and railway - from the Eagle Lake Road to the base of the railroad (along the east shore of Eagle Lake); (2) the unrestricted use (for a steamboat landing) of any wharves or piers built on the shores of Eagle Lake; and (3) the right to construct and use a wharf not over 50 feet wide on the shore side of the right-of-way. In return, Clergue agreed to pay the trio \$100 one year from that date, then on every January 22 thereafter, five cents for each person visiting the summit during the previous twelve months. The full particulars are spelled out in a lease recorded June 6, 1883, at the Hancock County Registry of Deeds.

One of Clergue's first tasks was to determine the exact path the proposed railroad would follow. In December 1882, he hired two Bangor men, Alden F. Hilton and F.W. Goodwin, to explore Green Mountain's granite-ribbed slopes and select the most advantageous course for laying the track. In 1871, Hilton had engineered construction of the broad-gauge European & North American Railway, which ran between Bangor and St. John, New Brunswick.

Goodwin was one of GMR's stockholders. Clergue also tapped Hilton to oversee the job of building the Green Mountain Railway, and Hilton did draw up a general plan. But before any meaningful work on it could begin, Hilton withdrew to manage a larger project - construction of the Megantic Railway, connecting Montreal and Portland. Clergue then placed Frank W. Cram in charge of the overall construction. He also named Orrington's Warren Nickerson the chief engineer and George Jones, superintendent of laying the track.<sup>17</sup>

During December 1882 and early January 1883, Hilton and Goodwin explored the ice-and snow-covered sides of Green Mountain, enduring several days of sub-zero conditions in the process. The pair ultimately chose a route beginning at the east shore of Eagle Lake and stretching 6,300 feet (1.2 miles) up the mountain's heavily wooded west slope. The course was nearly straight, incorporating just two minor, right-hand curves, each about three degrees. Because the surface of Eagle Lake is 274 feet above sea level and Green Mountain's summit elevation is 1,532 feet, the total vertical ascent amounted to 1,258 feet. The average rise of the railbed would be one foot for every 4.5 feet traveled (roughly 22 degrees), while the steepest grade would gain nearly one foot in three (about 30 degrees).

### Getting State Approval

Before Frank Clergue could formally establish the Green Mountain Railway, he needed official approval. In January 1883, he asked the Maine legislature for a charter "to build a railroad from the village of Bar Harbor to some point on Eagle Lake." Interestingly, however, no hard evidence exists that lawmakers in Augusta approved the request-i.e., Maine public laws do not include any such statute. Nonetheless, GMR did fully comply with the requirements set forth in the state's 1876 act authorizing the formation of railroad corporations: raising sufficient capital stock; naming appropriate company directors; creating valid, subscribed articles of association, etc. The notarized document detailing the articles of association was signed by GMR officials on November 9, 1882, approved six days later by the Maine Board of Railroad Commissioners, and recorded in the Secretary of State's office on November 23.18

Clergue also sought-and received-legislative approval to change the railroad's gauge (the distance between the two rails), so it would match the slightly narrower tracks on Mount Washington. The latter measured four feet, seven and one-half inches, one inch less than the standard mandated by Congress in 1873. On February 3, 1883, lawmakers passed a public and special law authorizing the Green Mountain Railway to adopt any gauge "not less than two feet nor

more than six feet." The ruling would allow Clergue to have a locomotive built utilizing the same specifications as recent ones at Mount Washington-and save time and money in the process. One account even claims the locomotive Clergue purchased that spring was originally intended to run on the MWR line.<sup>19</sup>

Among other conditions, Maine's 1876 railroad law required Clergue to present "a petition for approval of location" at a public hearing before the state's Board of Railroad Commissioners and publish advance notice of the meeting. The announcement appeared in the *Mount Desert Herald* on January 11, 1883, and the hearing took place February 3 in Bangor.

The board's three commissioners approved the petition as presented and later in the month accompanied Clergue and GMR's directors to Bar Harbor for a first-hand inspection of the proposed route.<sup>20</sup> With the go-ahead from the commissioners in hand, Clergue was free to make his railroad a reality. He wasted no time. Initial work commenced Monday, February 19, 1883.

#### Railway Construction Begins

Confident his plan would get the necessary approval, Frank Clergue placed the following notice in the *Mount Desert Herald's* "Wanted" section for January 18, 1883:

GREEN MOUNTAIN RAILWAY. Proposals solicited. For the whole or any part of the following: Construction of circular stone wall of a house on the summit of Green Mountain, Mount Desert Island, containing about 8000 feet of masonry; carpenter's and painter's work on same. 80 cubic yards of culvert masonry, 6000 cubic yards of earth excavation; 1275 cubic yards of ledge excavation; 700 cubic yards loose rock; drilling of 2000 holes, 6 inches deep. 1 1/2 inches in diameter. 100,000 spruce timber and plank; 2800 railroad ties; clearing and grubbing 6000 feet of track; 6000 feet (superficial) 3-inch plank walk; construction of a wharf on Eagle Lake, about 1000 feet, superficial area.

For transportation of passengers and freight between Bar Harbor and Eagle Lake, in connection with Railway; for transportation of 100 tons railroad material from Bar Harbor to head of Eagle Lake. For lease of hotel on summit of Green The call for men, materials, and related services was clear and detailed, and several area businesspeople responded. Richard Hamor & Sons, proprietors of Bar Harbor's Grand Central House, gained the bid to clear the proposed route-removing obstructing rocks, roots, and stumps, and smoothing the terrain where practical. The Hamors also supervised transportation of the building materials and the rolling stock from Bar Harbor to the mountain. Off-island crews also participated in the overall work. Carpenters and masons from Bangor erected a spacious stone-and-wood hotel on the highest crest of the mountain. Railroad contractor David D. Smith and civil engineer Fred H. Coombs, both from Bangor, furnished the woodwork for the road. Once activity commenced, the engineers and the contractors made their headquarters at the St. Sauveur Hotel in Bar Harbor.

#### The Railbed

By mid-February, enough snow had melted from the mountainside to permit the work of clearing and grubbing to commence. On Monday, February 19, crews began hacking out a nearly 100-footwide strip through the forest and the dense undergrowth. They worked 12-hour shifts and received \$1.50 per day, living in a temporary boarding house operated by Samuel E. Head at the foot of the railway. During mid-April, 15 laborers struck for higher wages, demanding \$1.75 a day. Frank Clergue dismissed the request, and the work continued without further incident.

The chosen route mostly spanned stretches where either the ground could be cleared to the underlying rock, or granite ledge was already exposed. Along the way, the surface contour was uniform enough that very little blasting was necessary. This eliminated the need to construct trestlework to ensure a relatively steady grade. In a few spots, granite crib work carried the track over slight depressions or shallow ravines. In fact, the well-preserved, but overgrown remains of one such stone support are still visible less than halfway up the mountain.

Due to lingering snow and ice, the task of preparing the roadbed did not begin in earnest until well into April. Where necessary, workers smoothed the bare granite's uneven face to produce a more consistent incline. While the rock cutting progressed, as many as 15 yoke of oxen began hauling fresh-cut lumber from the forest near the summit, to use as the foundation for the track.

As soon as the ledge was ready, stone workers drilled laterally parallel rows of holes six inches into the granite and inserted a one-inch iron bolt into each, leaving the exposed ends protruding eight to 12 inches. In series of three, the projecting rods formed permanent supports for the foundation logs snugged against them at right angles to the road. Across the logs, crews positioned stringers, parallel with the track, and solidly fastened them to both the underlying timbers and the ledge. Next came six-inch-square crossties, each secured by two bolts, seven-eighths of an inch in diameter, as well as four spikes and two lagscrews. At sections where a taller foundation was necessary to retain the required grade, crews placed additional alternating tiers of cross-timbers and stringers before anchoring the crossties. A Portland newspaper reporter who visited the railway in June remarked that "the entire structure is as solid as if it were a part of the ledge."<sup>21</sup>

The track itself consisted of two conventional T-rails and a central cog rail. On April 2, 90 tons of T-rails, ordered from New York in early February, reached Bar Harbor aboard the 99-foot coasting schooner *Watchman*.<sup>22</sup> The cog rails were assembled at the Atlantic Works in East Boston, where those for the Mount Washington road had been manufactured more than 15 years before.

Rail laying began the first of May and progressed up the mountain as quickly as the foundation structure was in place. During the ensuing seven weeks, workers eventually numbering 140 to 175 pushed the work rapidly. A locomotive and two work cars facilitated moving the heavy rails and other cumbersome construction materials uphill to the current work site. A.S. Randall, who had been an engineer on the Mount Washington Railway the previous 11 years, was hired to run the locomotive and teach others to operate it in time for GMR's inaugural run.

By May 10, crews had laid 1,200 feet of track. Three weeks later, work had progressed halfway up the mountain, prompting

supervisors to predict they would have a train at the top by June 23, the day GMR officials had envisioned as the most suitable for a grand opening. The prediction proved accurate; construction reached the one-mile mark by mid-month, and on June 22, workers hammered the final rail into place.<sup>23</sup>

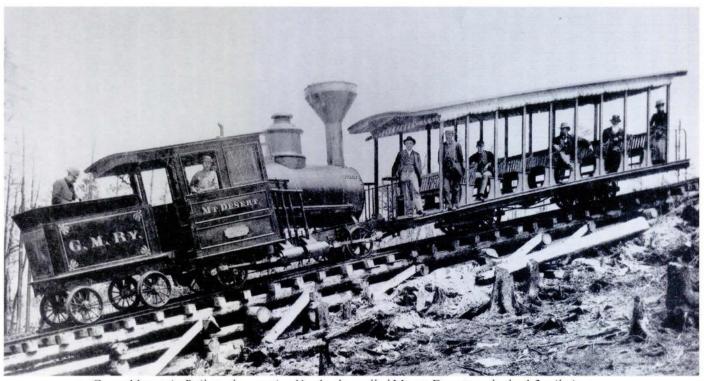
### The Rolling Stock

As work up Green Mountain\(\delta\)s western slope progressed, Frank Clergue simultaneously moved the multi-faceted railroad project ahead on several other fronts. He purchased a 10-ton locomotive from the Manchester (NH) Locomotive Works, the same firm that had turned out earlier ones for the Mount Washington Railway. He also ordered a passenger car and two work cars from the Hinckley & Egery Iron Works in Bangor.

Getting the locomotive from Manchester to Eagle Lake proved a real challenge. On April 12, it arrived in Portland and was offloaded for transfer to the Maine Central Railroad steamship *City of Richmond*. But the burly engine was too large for *Richmond's* gangway, so the schooner *Stella Lee* was hired to carry it, reaching Hamor's Wharf in Bar Harbor on Wednesday, April 18. At the dock, a moving crew hitched a team of 14 horses to the weighty cargo and skidded it up West Street, then south along Bar (now Bridge) Street. Before turning onto Cottage Street, the movers decided to substitute wheels for runners, to reduce resistance, and added two yoke of oxen for greater pulling power.

Averaging slightly less than one mile a day, the industrious gang of men and animals carefully maneuvered the weighty locomotive to the north shore of Eagle Lake, arriving on Saturday, April 21. The 2.5-mile journey involved cresting a nearly 350-foot rise in elevation, through the gap between Great Pond Hill, the northernmost extent of Green Mountain, and the south side of Great Hill. A large scow purchased by Hamor & Sons made the trip, as well, to carry workers' tools and equipment and ferry other freight and building materials to the foot of the railway.

The final leg of the trip, from the north end of Eagle Lake to the railway terminal at the base of the mountain, had to be delayed until enough lake ice could be cut and removed to permit the barge and



Green Mountain Railway locomotive No. 1, also called Mount Desert made the 1.2 mile journey between Eagle Lake and Green Mountains's central summit in slightly less than 30 minutes - an average speed of between two and three miles per hour.

enough lake ice could be cut and removed to permit the barge and its unusual cargo to navigate unhindered. On May 3, the *Mount Desert Herald* reported that both the locomotive and a construction car had been landed at the base station, placed on temporary rails, and rolled a few hundred feet to a spot opposite the new depot, where workers were putting them in running order. By May 7, both units had been placed on the first section of cog rail.

Like its early Mount Washington counterparts, the Green Mountain locomotive, dubbed Mount Desert, burned wood and could generate approximately 150 pounds (per square inch) of steam. From its horizontal boiler, the pressurized vapor was channeled into four independent, double steam cylinders, each pair connected to a separate drive axle. Here the process of converting steam into mechanical energy (and linear motion into rotary motion) occurred, causing the drive axles to turn. As they did, they set in motion a pinion gear and an interlocking axle shaft with its associated spur, ratchet, and cog gears. One tooth after another, the slowly revolving cog gear meshed with the rack, set equidistant between the underlying T-rails, and moved the locomotive forward. (The locomotive's traditional wheels simply turned on their axles, instead of being driven.) During the ascent, a hinged, pivoting device known as a "pawl" dropped into each successive notch of the revolving ratchet, preventing any backward motion.<sup>24</sup>

The idea of equipping *Mount Desert* with two separate cog wheels was a safety precaution. Should a malfunction occur in any part of the mechanics of one, the likelihood of a disaster would be averted by having the second system continue to operate independently.

Hinckley & Egery workers constructed the passenger car and two work cars in sections, and these were assembled in a workshop within the depot at the foot of the mountain. Unlike the closed coaches at Mount Washington, the Green Mountain passenger car had open sides, providing riders easier access and greater visibility. It held eight wooden benches, each spanning the width of the carriage. One bench could accommodate six people, giving the car a total carrying capacity of 48. The seats, with slatted backs, were positioned at an angle similar to the average grade of the track, so

downhill, affording riders broadly sweeping views of the surrounding landscape. Roll-up canvas curtains along the sides and ends of the coach could be dropped to shield travelers from unexpected rain, cold, or strong winds. The passenger car was fitted with brakes independent of the locomotive. During the ascent and descent, it remained on the uphill side of the engine and was not coupled to it. If anything unforeseen should happen to the locomotive, the car's brake could quickly be screwed down to safely stop and hold the carriage at any point along the route.

The 1.2 miles over which the little train would operate was just short enough that the locomotive could run the entire distance without stopping for water, which was not the case at Mount Washington. There, a holding tank stood alongside the track, slightly more than a mile from the base station, and passing locomotives routinely stopped to refill their boilers.<sup>25</sup>

#### WAUWINET

Because Bar Harbor is situated beneath the northeast face of Green Mountain, providing railroad patrons a way to connect with a train running up the remote west side required a bit of creativity-a trait Frank Clergue possessed in abundance. In fact, he had already decided how this would happen. Passengers would take a 20-minute (2.5-mile) carriage ride from Bar Harbor village to the north end of Eagle Lake, then a 20-minute (1.5-mile) boat cruise down the lake, to a landing near the train depot. The stage and boat schedules would be coordinated to permit riders convenient access to any of four daily rail departures to the summit. In early April, Clergue purchased the excursion steamer Wauwinet, then docked at Newburyport, Massachusetts. Meanwhile, at the base of the railway, workers had begun clearing an area 100 by 300 feet adjoining the lakefront, where they would construct a passenger depot, car and engine houses, and a small shed for storing ice. At the shore, others had begun erecting a long wharf where Wauwinet would tie up.

Prior to its arrival in Bar Harbor, *Wauwinet* served in various capacities in Massachusetts, including as a tug in Boston Harbor. Built c.1876 in New Bedford, the vessel was taken to Newburyport in 1880, where it underwent a thorough rebuilding, including the

installation of a new engine and boiler. In July 1881, the flat-bottomed stern-wheeler was sold to the local Pentucket Navigation Company. During 1882, *Wauwinet* made daily trips along the Merrimac River, from Lawrence to Haverhill, Newburyport, and the ocean.<sup>26</sup>

Wauwinet steamed up to Hamor's Wharf the afternoon of April 17, 1883, one day before the GMR locomotive arrived. It lay there until early May, when Elihu Hamor tackled the task of moving the 11.5-ton vessel over the same forested route he had cajoled the hefty, ironand-steel locomotive. As it turned out, Wauwinet's journey would be even more laborious.

The start of the trip, over relatively flat ground, went reasonably well. By May 9, Hamor's team had hauled the steamer a mile from the starting point, and the *Mount Desert Herald* declared "the movers are making good progress." But the headway slowed as the vessel reached the difficult uphill portion. During the next week, forward movement averaged only a few hundred feet a day. On May 24, *Wauwinet*, a bit worse for the wear, arrived at the north shore of Eagle Lake. Workers gave the craft a thorough overhaul before launching it into the chilly lake waters. During the next few weeks, the vessel made numerous trips carrying supplies to the base of the railway.<sup>27</sup>

In June, John D. Hopkins, Collector of Customs for the Frenchman Bay District, contacted the U.S. Treasury Department in Washington, informing the agency that Frank Clergue had brought *Wauwinet* to Eagle Lake. Noting that the lake was "entirely disconnected with the ocean or any navigable waters tributary to the ocean," Hopkins wondered whether the steamer should be "registered, enrolled, or licensed." Federal officials replied that since *Wauwinet* was not employed on what were considered "navigable waters of the United States," it would not need to be provided with marine documents. Hopkins was further informed that as long as the vessel remained undocumented, it legally had no home port, although if it should "get its papers," the home port would be the one nearest the company\$\dispse\$s established place of business (Bar Harbor), or where the steamer's agent had his business residence (Bangor). *Wauwinet* remained undocumented.28

#### The Green Mountain House

Atop Green Mountain, Frank Clergue planned to erect a substantial hotel and dining room for the enjoyment of his customers, anticipating that many would choose to eat and remain overnight, while savoring the breathtaking views and awe-inspiring sunrises and sunsets during their stays.

On March 1, 1883, GMR directors voted to have work commence at once on the new summit inn, to be called the Green Mountain House. During the month, teams of horses hauled building materials -lumber, lime, cement, sand, brick, nails, etc.-up the mountain via the old north ridge carriage road. The first construction began March 29. Workers under the supervision of N.J. Bunker of Brewer stayed at the top, boarding in Daniel Brewer's 1866 Mountain House. The simple lodging stood less than 50 feet from the building site and had been renovated to accommodate them. Progress was rapid, and by the middle of May the fashionable wood-frame structure was complete, except for interior finish work. By then, Frank Clergue had announced that Horace W. Chase, who ran the American House in Bangor, had leased the Green Mountain property and would supervise its operation.

The new hotel stood near the apex of Green Mountain's central summit, the highest of three broad peaks roughly 1,000 feet apart. From this spot the surrounding view is the most extensive and takes in the southerly reaches of Mount Desert Island, the Cranberry Isles, Mount Desert Rock, East Penobscot Bay, and a vast sweep of open ocean. The main house was symmetrical, situated on an east-west axis. Three stories high, it rested on a 41 by 50-foot granite block foundation. The east end of the first floor contained two large parlors-one for men; the other for women. A spacious dining room, 30 by 41 feet and able to seat 125, filled the west end. An eight-foot veranda, furnished with chairs and settees, surrounded the hip-roofed structure. Four entrances, two on the north side and two on the south, afforded guests direct, convenient access to the dining room and both parlors. A 26 by 30-foot ell, two and one-half stories high, projected from the west end of the main building. The lower level contained a kitchen, serving room, and pantry.

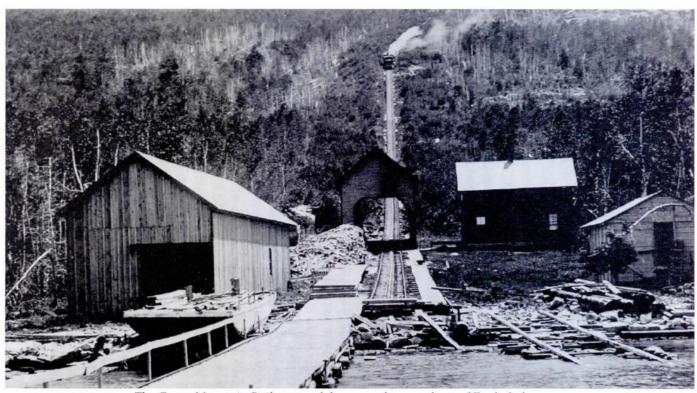
The hotel's principal staircase led upward from the dining area to the second story, designed with 16 sleeping rooms--10 in the main house and six in the ell. The third story contained 10 more. A separate stairway from the third floor continued up to a sliding scuttle, opening onto a truncated roof and a raised, railed platform. In the center of the platform stood a glass-sided observatory, 10 feet square, topped by a pyramidal spire, 22 feet high at the tip. From it, a flagstaff extended the hotel's overall height to 70 feet above the mountaintop.

The original design plans called for additional observation pavilions to be erected on the neighboring eastern and western summits and connected to the hotel by tramways, but with the exception of an observatory built on the eastern peak the following summer, the proposed additional features were never constructed.

### Open For Business

By mid-June, Frank Clergue had definitely decided to celebrate the Green Mountain Railway's grand opening on Saturday, June 23, and had invited several distinguished guests to partake in the first official trip to the summit. Places aboard the freshly painted passenger car were reserved for the three Maine railroad commissioners, who would make a final inspection of the entire road; GMR officers and directors; Bangor area dignitaries, including former Vice President Hannibal Hamlin, then living in Hampden; plus a broad contingent of journalists-editors and reporters from major newspapers across New England and beyond. On Saturday morning, a convoy of buckboards transported the enthusiastic party from Bar Harbor to Eagle Lake, where the steamer Wauwinet was waiting to carry them to the base station. Shortly after nine a.m., 55 invited guests and railway personnel crowded onto the tiny train for the anticipated ascent. Eastern Argus city editor E.S. Osgood described the trip to the top as one made "in perfect smoothness" and "a ride greatly enjoyed by all."29

Regular passage on the Green Mountain Railway began the following Saturday, June 30. Patrons had their choice of four trips a day, with stages leaving Bar Harbor at 8:00 & 10:00 a.m. and 2:00 & 4:30 p.m. One-way passage between Bar Harbor and the summit



The Green Mountain Railway track began at the east shore of Eagle Lake and stretched 6,300 feet up Green Mountain's west slope. The course was nearly straight and gained 1,258 feet in elevation between the lakeshore and the summit.

cost \$1.75; round trips were \$2.50. Intermediate fares were also available for those wanting to experience only certain parts of the route. In July, GMR placed three, 16-passenger "barges" (large, open carriages fitted with lateral seating on both sides) on the Bar Harbor-Eagle Lake run and hired Abner Getchell of Linneus to manage the line. Before leaving town, the spacious rigs, custom manufactured in Cambridge, Massachusetts, made the rounds of the local hotels, picking up passengers at the West End, Rockaway, Newport, Marlborough, Rodick, Grand Central, St. Sauveur, Lynam's, and Belmont.

The excursion timetable was carefully coordinated to provide unhurried, yet efficient transport of passengers. *Wauwinet's* departures from the head of Eagle Lake occurred 45 minutes after barges left Bar Harbor, with trains ascending the mountain 20 minutes following the steamer's sailing. The locomotive required slightly less than 30 minutes to reach the top, which meant those making the trip from downtown Bar Harbor arrived at the summit in about 90 minutes.<sup>30</sup>

GMR business the first season was steady and especially busy on Sundays, when a healthy mix of curious Mainers joined the faithful parade of summer visitors. Many who rode the trains stayed overnight at the top. A published list in the August 9, 1883, edition of the *Mount Desert Herald* discloses the names of 177 individuals who had spent at least one night at the summit the previous week. It includes parties from 15 states and one Canadian province.

Final figures for 1883 show that GMR trains carried 2,697 passengers - a respectable figure, although not necessarily one that met the full expectations of company management and the financial backers.<sup>31</sup> Nevertheless, following a GMR directors' meeting in late October, Frank Clergue painted a bright picture of the corporation's state of affairs, declaring a six percent dividend on the stock of record as of November 1. He also disclosed that the firm had shown a net income of \$3,135.25 and announced he would add a second train to the line at the start of the 1884 season. More than that, Clergue was ready to reveal his next ambitious undertaking, one closely associated with the Green Mountain Railway.

#### The Mount Desert Railway

At the same time Frank Clergue released news of the Green Mountain Railway's profitable first season, he divulged the essence of another plan-to build a narrow-gauge railroad from the GMR terminal at the foot of Green Mountain to Bar Harbor village. The new enterprise would be called the Mount Desert Railway (MDR) and do business under basically the same ownership and management as the Green Mountain Railway. In fact, by the time word of the scheme appeared in the Bangor and Bar Harbor papers (October 31 and November 1, respectively), Clergue had already dispatched Bangor engineer Fred Danforth to survey the proposed route. He had also arranged for a preliminary hearing before the Board of Railroad Commissioners. It would take place Friday evening, November 2, 1883, at the Penobscot Exchange Hotel in Bangor.

Although the eleventh-hour public notice gave the railroad's adversaries extremely short notice, they worked swiftly to organize their opposition and hired Ellsworth attorneys Andrew Peters Wiswell and Hannibal E. Hamlin-the latter, the son of the former Vice President-to represent them. The day before the hearing, the *Mount Desert Herald* provided a measure of editorial support, calling the plan "a project which needs very careful consideration."<sup>32</sup>

At the preliminary hearing, Frank Clergue presented his petition, whereupon Wiswell and Hamlin proceeded to make a vigorous case against it. During the latter's remarks, the railroad commissioners reminded the two counselors this was only an introductory forum, and while they could verbally state their objections, it was neither the time nor the place to present the lengthy, written remonstrance they were prepared to introduce. They would have that chance at a formal hearing, slated for Bar Harbor on November 30.

On the eve of the Bar Harbor gathering, the *Herald* took a strong editorial stand against what it called "That Proposed Railroad," insisting that the island's resident and non-resident property holders and the summer visitors, as well-were all unanimously opposing it. The paper concluded its remarks by strongly urging the commissioners to reject the plan.

The formal hearing was held in Bar Harbor village's district

schoolhouse, where Frank Clergue addressed an overflow crowd almost universally against the proposed Mount Desert Railway. In his extended remarks, Clergue indicated that his company had originally intended to run a track from Eagle Lake to the steamboat wharf, along a route paralleling a lengthy stretch of intown Bar Harbor shorefront. But he had since learned of the strong objections to that idea and had consequently amended the formal petition to have it end the line at "some spot on Eden Street, near James Eddy's store." This would have placed the terminus near today's junction of West and Eden streets. Although the audience listened in polite silence, Clergue's remarks did nothing to change their dissatisfaction with the scheme and, if anything, solidified their resolve to kill its prospects as quickly and as forcefully as possible.

As soon as Clergue had finished speaking, he left the meeting, and a trio of area residents rose in turn to express contrary points of view. Fountain Rodick, one of the family operating the cavernous, sixstory Rodick House on Main Street, was the first to speak. He began by saying that the Green Mountain Railway had been "forced upon the people of the island" before they had the chance to voice their opinions of it and cautioned that the Mount Desert Railway would have appeared in the same fashion if it weren't for the fact that a few alert individuals had seen the public notice shortly before the initial hearing. He went on to remind everyone that Clergue's MDR petition also included other provisions, including the right to operate steamships on the navigable waters of the State of Maine and erect hotels and restaurants in connection with them. He maintained that approval of the proposed project would open the door to creating a monopoly of the area's places of interest for the benefit of single individuals or corporations. Rodick concluded by saving that visitors came to the island "for relief from the hurry and bustle of the busy world," and the buckboard and carriage were swift enough modes of transportation for them.

After the discussion concluded, the railroad commissioners scheduled a follow-up meeting for Wednesday, January 16, 1884, when they intended to decide the railroad's fate. During the intervening weeks, the *Herald* continued to publish opinions and viewpoints against the venture. A few appeared as editorials, but most were expressed in

letters from unnamed readers identified only as: "A Summer Resident of Bar Harbor," "A Property Owner and Summer Resident of Mount Desert," "Resident," and similar pseudonyms. Among the remarks, the anonymous writers called the plan "objectionable," an "outrage," and "a serious drawback" to the islanders' comfort and the value of their property. One warned that "a screaming, smoking locomotive, crossing the streets and neighborhood drives, frightening horses with their whistles and burning up the wood-one of the great charms of Mount Desert-from their sparks" would be a serious injustice "to the great majority of the persons who seek their summer rest and recreation" on the island.

Railroad commissioners D.N. Mortland (chairman), John F. Anderson, and A.W. Wildes convened the emotion-charged January gathering shortly before five p.m. in the music room at the St. Sauveur Hotel. Frank Clergue took the floor first, then yielded to MDR superintendent Fred Danforth and company director Frank W. Cram. Attorneys Hamlin and Wiswell led the charge for the remonstrants, cross-examining each of the petitioners before calling on Fountain Rodick to again speak for the townspeople and the summer visitors.

At 11:00 p.m., the spirited session was still in progress, prompting the commissioners to adjourn for the night and resume the following morning, when each side would be given one hour for closing arguments. Shortly before noontime on the 17th, Chairman Mortland announced that the matter required additional consideration and the commission would not render a decision that day. In fact, more than two weeks passed before the official word was handed down.

The railroad commissioners' ruling proved a bittersweet victory for both sides. Frank Clergue would be allowed to build his railroad, but only between the base of Green Mountain and the outskirts of Bar Harbor. Those in Bar Harbor village would not have to put up with the noise or distraction of a shorefront railroad, but neither they nor the other objectors could prevent Clergue and his associates from going ahead with the new line.<sup>33</sup>

As it turned out, it would be the anti-railroad coalition which

ultimately won the day. Realizing he would be challenged every step of the way and suffer additional ill will in the process, Frank Clergue postponed building the Mount Desert Railway that year. And although he kept the project legally alive until 1892, it never materialized.

### 1884: Improvements and Setbacks

Preparations for the Green Mountain Railway's 1884 season got underway well before regular summer service was scheduled to begin. Frank Clergue arrived in Bar Harbor in early May, to ensure that last-minute details would be dealt with in plenty of time. The previous winter he had pursued the matter of adding a second train to the line and purchased (from the firms which built the previous ones) another locomotive and an additional passenger car-both identical to their predecessors.

Clergue also authorized and initiated improvements and enhancements to existing facilities. At Eagle Lake, workers enlarged the steamboat wharf, while others repainted and refitted *Wauwinet*. On Green Mountain's eastern summit, carpenters began putting up a 75-foot, octagonal observatory, where visitors could enjoy bird's-eye views of Bar Harbor village, the Porcupine Islands, Frenchman Bay, and the northeastern extent of Mount Desert Island. During early June, the railroad commissioners came to town, inspected the track and all rolling stock, and found the line in "a perfectly safe condition."<sup>34</sup>

The new season kicked off with relatively little fanfare. Beginning June 23, management advertised on-demand trains for parties of 10 or more, then on Monday, July 7, resumed four scheduled daily trips, as had been offered the previous season. Early reports suggested that business was good, and company expectation ran high it would continue that way. Then, in early August, an unforeseen disaster occurred atop Green Mountain.

### Fire Destroys The Green Mountain House

Shortly after sunset, Saturday evening, August 2, 1884, several Bar Harbor townspeople noticed a bright orange glow behind the eastern peak of Green Mountain, prompting some to speculate that a forest

fire had broken out in the woods on the back side of the summit. Others thought perhaps overnight partygoers had kindled a huge bonfire somewhere near the top. A few even speculated that the year-old Green Mountain House was ablaze. Shortly after 8:30 p.m., a phone call to the *Mount Desert Herald* offices settled the issue. A caller from Otter Creek, where the summit buildings were plainly visible, confirmed that the big hotel was not only afire, but already mostly consumed. Furthermore, the nearby Mountain House had ignited and was also fully involved.

The fire had broken out on the roof of the main house, apparently started by sparks flying from the kitchen chimney. An eight-year-old girl, staying with her mother and sister in the hotel, happened to look out a window and noticed what she described as a "sheet of flame." The mother quickly whisked the child outside to a place of safety, then returned to the smoky interior to retrieve their possessions. But the flames were spreading so rapidly that she could neither find nor save but little. With no firefighting equipment or water at their disposal, the token hotel staff were helpless to stop the raging inferno, and both summit structures quickly burned to their foundations, leaving only the shafts of two brick chimneys rising starkly from a mass of gray ash.

A man living on the west side of Eagle Lake also spotted the flames that evening. He rowed across to the railway terminus and awakened one of the engineers, who ran a train to the summit and brought down the few stranded guests and employees.

The Green Mountain House had been leased to Horace W. Chase of Bangor, who estimated his loss at \$4,000. He had insured the business for \$1,500. GMR had spent about \$8,000 to have the hotel built and carried a \$5,500 policy against its loss.

### A Temporary Structure Erected

Undeterred by the calamity, GMR took immediate measures to put up a temporary replacement for the former Green Mountain House. Within 48 hours, management had gotten plans drawn up for a new structure; contracted with Bar Harbor builder John E. Clark to erect it; hired construction workers; ordered the necessary building materials, including 10,000 feet of lumber, in Bar Harbor and

Ellsworth; and had them transported by rail, ferry, and horses to Eagle Lake, where they awaited transport to the mountaintop the next morning.

Work began August 5 on the stopgap building, which company officials had decided should stand on the eastern summit, adjoining the recently constructed observatory. Once the two-story framework was up, carpenters modified the observatory stairway, to allow access between it and the guest house's second floor. The finished structure measured 35 by 45 feet. The lower level included a 21by 34-foot dining room, a 12 by 17-foot parlor, and a 20 by 30-foot



The Green Mountain House was built in 1883. The following summer, sparks from the kitchen chimney (right) ignited a section of the main roof and the entire "structure" burned to the ground.

office; the upper floor was divided into eight bedrooms. By August 15, the swiftly completed structure had opened for business, and innkeeper Chase was serving what the *Mount Desert Herald* termed "most appetizing" meals in a dining area swelled with exuberant and appreciative guests.<sup>35</sup>

GMR's 1884 season concluded on Saturday, September 21. The following day, a single train made a special run for the enjoyment of company officials and their guests. Management had reason to be pleased-and optimistic. Ridership was up significantly from the previous year; more than 5,000 people had paid to take the mountain excursion. Eager to see a full return to normal operations, GMR directors met a week later and voted to replace the former Green Mountain House with an even more splendid facility, located where the temporary one stood.<sup>36</sup>

#### The Summit House

During February 1885, GMR contracted with John E. Clark to erect a new, full-service hotel - to be called the Summit House. Wanting to get an early start on construction, Clark hoped to skid the building materials across the ice on Eagle Lake, to the foot of the railway, where work trains would carry them to the top. But once he learned it would be April before the locomotives could run, he decided to employ several teams of horses to cart equipment and supplies up the broken-down carriage road. Begun in early March, the strenuous undertaking took nearly three weeks.

Using plans drawn by W.E. Mansur of Bangor, Clark had crews at work on the Summit House in early April. The general design called for an enlargement of the temporary quarters erected the previous summer, which the GMR people thought were too good to be taken down. It added a 35 by 40-foot extension to the north end of the existing building and made the entire structure three stories high, capping it with a slate roof. A veranda surrounded the entire first floor, which had been configured to include an office, parlor, dining hall, private dining space, kitchen, and pantry. The second and third levels each contained 10 sleeping rooms with shared baths. Open fireplaces in the dining hall, parlor, and hallways provided warmth and added to the charm. A basement area gave space for a 30,000-

gallon cement cistern and a series of storerooms. Clark's workers completed the job in mid-June, comfortably ahead of the planned July 1 opening. The entire project cost about \$5,000.<sup>37</sup>

#### Railway Business Declines

Succeeding seasons through the 1880s saw the Green Mountain Railway Company continue efforts to improve the quality of its operation by further enhancing the level of service. To bolster early season business, trains were made available on demand throughout June, rather than simply the latter part of the month. As the 1885 season got underway, management announced additional stage service connecting Bar Harbor with Eagle Lake. Barges would continue making the customary stops at intown hotels and also call at private cottages for parties of five or more. The following year, two more stages were added to the line, making a total of five. During 1889, the cog trains made an additional two trips a day, with the earliest and latest runs reserved for people staying at the Summit House. That season, crews laid numerous replacement crossties and stringers along the roadbed, as added precaution to ensure the safety of the train and its passengers.

The 1886 season proved to be GMR's most successful, when close to 8,000 people rode the trains. During early July, the line benefited greatly from an added influx of summer visitors, as Bar Harbor played host to a conference of the American Institute of Instruction, the oldest educational association in the United States. Between 1,000 and 1,500 faculty and administrators from school systems across the northeast attended the four-day convention, and most took time to ride the railroad.<sup>38</sup>

Despite the company's attempts to further boost business, the number of passengers on its trains declined dramatically after 1886. During 1887, the final (estimated) tally fell to little more than 2,500. In 1888, a poor summer, weather-wise, the number dropped to just 990<sup>39</sup> and was only marginally better - a total of 1,305 - the following season. 40 Several writers have suggested that lean years in the local tourist business, marked by changing attitudes and habits among the summer visitors, were largely the reason for the downturn. While these may have contributed to the overall consequence, the major

factor was the establishment of a new means of travel to the mountaintop - a much improved roadway up Green Mountain's north ridge. The endeavor was the result of a joint effort by local businesspeople calling themselves the Green Mountain Carriage Road Company.

### The Green Mountain Carriage Road Company

Shortly before the Green Mountain Railway's grand opening in 1883, company officials had mildly hinted they would close the existing carriage road by putting up a gate where it crossed their track, just below the 1,300-foot level. The warning was never carried out, as much as anything because the old dirt-and-stone route was in such poor shape. Erosion had all but eradicated some sections, making it nearly impossible for horses and buckboards to navigate without major difficulty. At the more challenging stretches, riders had to get out and walk, so drivers could coax teams and empty rigs along. Aside from the road's failing condition, GMR management was optimistic that once its trains began running, people would flock to them almost exclusively.

For five seasons, GMR provided the only established transportation to the summit of Green Mountain. Then, in late 1887, the prospect of competition suddenly emerged. That December, Bar Harbor merchants Elihu and Ralph Hamor, with dry goods dealer John J. Carr, organized the Green Mountain Carriage Road Company (CRC) and raised \$25,000 to "purchase, lease, and acquire land from the base of Green Mountain to the summit, on which to locate, construct, and operate a toll road."

The plan called for work on the proposed project to begin the following spring, although the start-up was postponed after the task of acquiring a right-of-way up the mountain became more time consuming than the organizers had anticipated. Once it did begin, in early July, Joseph G. Kelly of Bar Harbor oversaw the construction. Under his direction, workers made non-stop progress and completed the job in only three weeks. The lower portion of the route lay slightly to the east of the older road, where it more quickly gained the crown of the mountain's north ridge and provided superior views. The upper section essentially followed the course of the previous approach. The entire way, from the Eagle Lake Road to the

summit, measured slightly more than 2.5 miles and was wide enough for two carriages to easily meet and pass one another.

Completed at a cost of \$8,000, the Green Mountain Carriage Road opened July 26, 1888. Edwin A. Atlee of Philadelphia, President of the Lehigh Valley Railroad, was the first to make the scenic drive to the top.<sup>41</sup> The road stayed open until October 1 and attracted more than 3,000 people.

## Open Hostility

Encouraged by the immediate success of the new venture, Carr and the Hamors hired crews to repair and grade the CRC roadbed the following spring, then reopened it June 17, nearly three weeks before the Green Mountain Railway ran its first scheduled train. That day-July 6, 1889-carriage road travelers encountered an unexpected surprise shortly before they reached the mountaintop. GMR employees had placed a gate across the road where the railroad track crossed it. Claiming the right of possession to the land at and around the summit, GMR had employed an attendant to charge passers-by a dollar per person, plus a dollar per vehicle, to proceed. The ploy was short-lived; the next morning angry CRC people tore down the barrier.

Tensions between GMR and CRC persisted, then resurfaced later in the month. The night of July 23, six anonymous "railroad people" rode the cog train to the top of the mountain, walked part way down the carriage road, dug a hole, planted dynamite, and blew up a portion of the roadway. CRC supporters immediately talked retaliation, threatening a lawsuit and the possibility someone might dynamite the GMR track.<sup>42</sup> Cooler heads eventually prevailed, and the momentary "road war" ended without further disruption or damage to either company's holdings.

The carriage road's revival spawned a new wave of entrepreneur, each eager to provide would-be mountain visitors the opportunity for easier, faster ways to visit Green Mountain's summit. The day the improved carriage road opened, Andrew Stafford began operating excursions to the top via a "very stylish" buckboard, built especially for the demanding ride by Ellsworth carriage maker Henry E. Davis. Leaving at 9:30 a.m. and 2:30 p.m. from his stable

on Spring Street in Bar Harbor, Stafford and his three-horse hitch made the circuit of intown hotels to pick up passengers. He promised that those who made the morning trip would be back in time for lunch, while ones who went in the afternoon would not miss their "early tea". A.S. Getchell, the proprietor of the Green Mountain Livery, offered on-demand service, advertising a variety of carriages and drivers "at short notice".

# Out of Business

Following GMR's woeful 1888 and 1889 seasons, management tried desperately to come up with ways to revive interest in the railroad. In early May 1890, the company announced it had reduced the round-trip train fare from \$2.50 to \$1.00. The idea did bring substantially more business. Nearly every day during August, extra buckboards had to be used to carry passengers to and from Eagle Lake. But the operating season was short, lasting only from mid-July to mid-September, and revenue from the more than 2,300 cheaper fares was not nearly enough to offset expenses. The line lost \$1,400 that season, and the company's already substantial deficit, dating back to 1887, grew to \$14,049.57.43 Seeing no way to reverse the growing financial plight, GMR directors shut down the railroad.

The end came quietly and received little attention in the local papers. A brief mention in the *Bar Harbor Record* for July 30, 1891, pointed out what most people already knew: "Formerly access to the mountain could be obtained by means of the cog railroad, but it was not patronized sufficiently to warrant its continuance, and this year it has been abandoned."

On January 17, 1893, the Hancock County sheriff's department conducted a sale of GMR's property at the law offices of Deasy and Higgins in Bar Harbor. W.A. Milliken purchased the stern-wheeler *Wauwinet*. Daniel and Perry Brewer, together with Orient Carpenter, bought the summit hotel. The furniture and other fixtures went to J. McCarthy, formerly an engineer on the railway.<sup>44</sup> Bar Harbor artist J.C. Manchester obtained one of the passenger cars and converted it into a Main Street studio for his paintings. Liveryman William H. Puffer bought the other, and it became a stall on South Street, where

he kept horses. No one expressed an interest in either of the two locomotives, and they were left undisturbed at the base of the mountain.

#### The GMR Locomotives Live On

A few months after the sale of GMR's assets, the defunct company's two locomotives experienced an unexpected rebirth. On May 23, 1893, a devastating fire swept through many of the buildings at the Mount Washington Railway's base station at Marshfield. Two of the railroad's seven locomotives were so badly damaged they had to be scrapped. Two others were salvageable, but required extensive, time-consuming rebuilding. A pair of passengers cars, a baggage car, and a freight car were also destroyed. The loss placed the railway's owners-since 1889, the Concord & Montreal Railroad Company (C&M)-in an uncomfortable predicament. With the summer season little more than a month away, the firm needed replacement rolling stock in a hurry if it were going to operate on a full schedule.

Word soon reached C&M that the two GMR locomotives were languishing at the foot of Green Mountain. Within ten days, the company had purchased the idle "iron horses" and arranged to have them partially dismantled, to facilitate their shipment via the Maine Central Railroad from neighboring Mount Desert Ferry to Mount Washington.

Although extensively rebuilt over the years, to the extent that few, if any, original parts remain, the two former Green Mountain Railway locomotives are still operating on Mount Washington. No. 1 (*Mount Desert*) was renumbered "4" and now goes under the name *Chocorua*. GMR No. 2 was first designated "5," renumbered "3" in 1934, and in 1995-96 dubbed *Agiocochook*.<sup>46</sup>

# The Aftermath

The Summit House continued to operate for a few more years after the railroad ceased, but never on the scale or with the elegance it had before. By the mid-1890s, the entire operation had become dubious. Persistent rumors of illicit goings-on finally prompted authorities to investigate. On August 21, 1895, a Hancock County sheriff and three Bar Harbor police officers raided the property, seized a large amount of illegal liquor (in violation of Maine's prohibition law of 1846), arrested the proprietor, and closed the place down. It never reopened.

During the summer of 1896, much of the Summit House's onceimposing structure was taken down. The best timbers and boards were saved, leaving only a rickety shell which needed to be burned to be properly disposed of. But several people living in nearby Otter Creek objected to having the surviving framework set afire. They were afraid the surrounding woods might catch and a runaway blaze would threaten their homes and community. The protest prompted the Bar Harbor Fire Department to assure those concerned that conditions would be suitable before they allowed anything on the mountain to be burned. That time arrived the foggy, showery evening of September 19, when winds were essentially calm and the nearby woods wet. The Summit House's scant remains were ignited and quickly went up in smoke.<sup>47</sup>

By the end of 1896, most remaining traces of the GMR track had likewise been removed. That December, the rails and assorted surplus iron were hauled to Nickerson & Spratt's Wharf in Bar Harbor, loaded aboard the schooner *Cambridge*, and taken to the Portland Rolling Mills, in South Portland, where they were recycled. The ties, stringers, and other wooden foundation pieces were left scattered along the roadway to rot.<sup>48</sup>

Over the next several years, mixed vegetation encroached on the former railbed, gradually obliterating its presence. In 1910, a nostalgic feature about the railway appeared in the *Ellsworth American*, in which the writer commented how the route was still evident, but already "rather faint at times." At one point, trailmakers marked the historic way with small, stone cairns, and occasional ones are still evident along the stretch above the park loop road, north of Bubble Pond. Today the entire route is heavily overgrown, except where it crosses open ledges. In some places, bushwhacking is the only way anyone attempting to trace the old line can follow the course. The best clues for identifying the exact location and direction are the surviving iron rods which held the foundation logs

in place. Most were never pulled from the ground, nor extracted from the ledges, and literally hundreds remain embedded where hardy crews first placed them.

The passing of the Green Mountain Railway brought an end to a unique and colorful attempt to capitalize on Maine's budding resort business. Although doomed by a lack of sustainable interest, the curious attraction enabled thousands to marvel at the grandeurs of Mount Desert Island in a fashion most could have otherwise only imagined and brought the region a substantial measure of public awareness that has helped ensure its ongoing growth as a preeminent travel destination.

Peter Dow Bachelder, formerly the Director of Information Services at the Maine Publicity Bureau, lives in Ellsworth, Maine. He is currently working on a book-length history of the Green Mountain Railway. Anyone having information or images regarding any phase of the railroad's (or Green Mountain's) history is encouraged to contact him at: P.O. Box 367, Ellsworth, Maine 04605, or via e-mail at: pdb@acadia.net

#### Notes

<sup>1.</sup> Champlain, Samuel de *The works of Samuel de Champlain*. Vol. 1. Translated and edited by H.H. Langton & W.F. Ganong; French texts collated by J.H. Cameron. Toronto: The Champlain Society, 1922.

<sup>2.</sup> Morison, Samuel Eliot. "The Course of the *Arabella* from Cape Sable to Salem." Publications of The Colonial Society of Massachusetts, Vol. XXVII; Transactions 1927-1930: Boston, 1932, pp. 285-295. Morison◊s study includes a copy of Winthrop's 1630 sketch, as well as a chart showing the Arabella's course across the Gulf of Maine.

<sup>3.</sup> Morison's essay "The Course of the *Arabella...*" (see Note 2) contains a copy of a page from the 1729 edition of *The English Pilot, The Fourth Book*, entitled "The Making of the Land on the Coast of New England," which includes sketches of the "Mount Desart Hills."

<sup>4. &</sup>quot;A Plan of the Islands Eastward laying from Penobscot Bay & of the Granted Townships, with their Distances and Bearings from each Other and from the Continent, Agreable to a Resolve of the Great and General Court for the Province of the Massachusetts Bayoper John Jones & Barnabas Mason, Surveyors, February 13, 1765." Original ms. at the Massachusetts Archives, Boston, Massachusetts.

<sup>5.</sup> Morison, The Story of Mount Desert Island Maine, p. 73. A photostat of Samuel

- Holland's "Chart of the Maine Coast, 1772" is in the William Otis Sawtelle Collections & Research Center, Park Headquarters, Acadia National Park, Bar Harbor, Maine.
- 6. Des Barres, Joseph F.W. Charts of the Coast and Harbors of New England..., Vol. 3, Atlantic Neptune. London, 1780. An original is in the Osher Collection, Osher Map Library and Smith Center for Cartographic Education, University of Southern Maine, Portland, Maine. Original Samuel Holland copper engravings entitled "Penobscot Bay and Frenchmano's Bay" (1776) and "The Coast of New England" (1781), both of which depict/identify Mount Desert Island, are at the Deer Isle Granite Museum, Stonington, Maine. A four-volume facsimile edition: The Atlantic Neptune (Barre, Massachusetts: Barre Publishing Co., 1966-1969) is part of the Special Collections at the Fogler Library, University of Maine, Orono, Maine.
- 7. Bar Harbor Times, January 28, 1931, p. 4.
- 8. "The Field Work" (unpublished, undated e-document from the National Oceanic and Atmospherics Administration's Central Library, Washington, D.C.) retrieved at: http://www.lib.noaa.gov/edocs/BACHE4.htm#NEWENGLAND
- 9 Hale, Jr., Richard Walden. *The Story of Bar Harbor*. Ives Washburn, Inc.: New York, 1949, p. 128-129.
- 10 Report of the Superintendent of the United States Coast Survey, showing the Progress of the Survey during the Year 1853, Sen. Exec. Doc. No. 14, 33rd Cong., 1st Sess, p. 192.
- 11. DeCosta, B.F. Rambles in Mount Desert: with Sketches of Travel on the New-England Coast from Isles of Shoals to Grand Menan. New York: A.D.F. Randolph & Co.; Boston: A. Williams & Co., 1871, pp. 85-86.
- 12. Mount Desert Herald, January 17, 1883.
- 13. Mount Desert Herald, August 19, 1882.
- 14. Unpublished, undated biographical sketch of Francis H. Clergue in the collections of the Sault Ste. Marie Public Library, Sault Ste. Marie, Ontario.
- 15. Green Mountain Railway Certificate of Corporation, November 23, 1882, Records of the Maine Secretary of State, reposited at the Maine State Archives, Augusta, Maine.
- 16. Joslin, Richard S., *Sylvester Marsh and the Cog Railway*, (Privately published, 2000), pp. 1-15, 27.
- 17. Eastern Argus, June 26, 1883.
- 18. Green Mountain Railway Articles of Association, Records of the Secretary of State: 1883, Vol. 5, p. 397, reposited at the Maine State Archives, Augusta, Maine.
- 19. Eastern Argus, June 26, 1883.
- 20. Bangor Commercial, February 21, 1883.
- 21. Mount Desert Herald, May 10, 1883.
- 22. Ellsworth American, April 5, 1883.
- 23. Eastern Argus, June 26, 1883.
- 24. Bangor Daily Whig & Courier, May 12, 1883.

- 25. Joslin, p. 25.
- 26. Bradlee, Francis B.C. Some Account of Steam Navigation in New England. Salem, Massachusetts: The Essex Institute, 1920, p. 30.
- 27. Bangor Daily Whig & Courier, May 31, 1883.
- 28. Bangor Daily Whig & Courier, June 20, 1883.
- 29. Eastern Argus, June 26, 1883.
- 30. Mount Desert Herald, July 12, 1883.
- 31. 1884 Annual Report of the Maine Board of Railroad Commissioners, unpaged tabular appendix.
- 32. Mount Desert Herald, November 1, 1883.
- 33. Mount Desert Herald, February 7, 1884.
- 34. 1884 Annual Report of the Maine Board of Railroad Commissioners, p. 17.
- 35. Mount Desert Herald, August 8, 1884.
- 36. Mount Desert Herald, October 3, 1884.
- 37. Mount Desert Herald, May 22, 1885.
- 38. The Daily Herald, July 13, 1886.
- 39. 1888 Annual Report of the Maine Board of Railroad Commissioners, p. 66.
- 40. 1889 Annual Report of the Maine Board of Railroad Commissioners, p. 32, 83.
- 41. Bar Harbor Record, August 2, 1888.
- 42. Bar Harbor Record, July 25, 1889.
- 43. 1890 Annual Report of the Maine Board of Railroad Commissioners, p. 81.
- 44. Eastern Argus, February 2, 1893.
- 45. Among The Clouds, July 13, 1895.
- 46. "Current Roster of Locomotives" available at: www.cograilway.com/alltime.html; INTERNET.
- 47. Bar Harbor Record, September 23, 1895.
- 48. Bar Harbor Record, December 30, 1896.