

MARSH-BILLINGS-ROCKEFELLER CARRIAGE ROADS
Marsh-Billings-Rockefeller National Historical Park
Woodstock
Windsor County
Vermont

HAER No. VT-27

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PHOTOGRAPHS

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HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C St. NW
Washington, DC 20240

ADDENDUM TO:
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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LOCATION: Marsh-Billings-Rockefeller National Historical Park is located in Woodstock, Windsor County, Vermont. The 20-mile carriage road and trail system traverses the entire property and extends beyond the park boundaries.

DATES OF CONSTRUCTION: Main Entrance Drive, c. 1870, alterations: 1869-1870, 1903-1904, c. 1956
Carriage Barn Drive, c. 1870, alterations: 1903-1904, c. 1956, 1978, 1998-1999
Belvedere Drive, 1872, alterations: 1903-1904, c. 1956
Secondary Entrance Drive, 1978, altered 1998-1999
North Street Drive, 1872
Pogue Carriage Road, before 1869
Mansion Drives, 1869
Summit Road, October 1887
Norway Spruce Allée, 1887
Pogue Loop, 1890
Myers Road, 1890
North Ridge Loop, 1891
Maple Grove Loop, 1892
McKenzie Road, 1895

LANDSCAPE ARCHITECT: Robert Morris Copeland, Martha Brookes Brown Hutcheson, Bryan J. Lynch

OWNER: National Park Service, U.S. Department of the Interior

PRESENT USE: Hiking and ski trails

SIGNIFICANCE: The result of Frederick Billings' efforts was a network of carriage roads giving access to the estate for utilitarian purposes, as well as providing a pleasurable encounter with the landscape. Traveling along the roads, riders could see reforestation in progress, picturesque vistas, and the reward of the view from the top of Mount Tom. The good stewardship of

Billings' descendants allowed this model nineteenth century landscape to survive, with minor modifications that reflect changes in land use.

PROJECT
INFORMATION:

The Marsh-Billings-Rockefeller National Historical Park Carriage Road Recording Project was undertaken during the summer of 2001 and brought to completion during the fall and winter of 2003. It is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. HAER is administered by the Historic American Buildings Survey/Historic American Engineering Record (John Burns, Acting Manager) a division of the National Park Service, U.S. Department of the Interior. The project was funded by the U.S. Department of Transportation's Federal Lands Highway Program (Art Hamilton, Administrator) through the NPS Park Roads and Parkways Program, and co-sponsored by Marsh-Billings-Rockefeller National Historical Park (Rolf Diamant, Superintendent) in cooperation with the Billings Farm & Museum and The Woodstock Foundation, Inc. (David Donath, President; Marian Koetsier, Administrative Officer).

The field work, measured drawings, and historical report were completed under the direction of Christopher Marston, Project Leader. The recording team consisted of Field Supervisor and Landscape Architect Chris Gray (Texas A&M University); Landscape Architect Aaron Feldman-Grosse (Penn State University); Botanical Illustrator Amy Mark (Southern Oregon State College); and Historian Katie Wollan (UC, Santa Barbara), who provided descriptive paragraphs of the carriage roads. Justine Christianson, HAER Historian, produced the historical report. David Haas completed the large format photography.

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Introduction

The Marsh-Billings-Rockefeller National Historical Park is a monument to the evolution of conservation thought in the United States. The history of the site can be divided into four periods: the Marsh era (1787-1869); the Billings era (1869-1914) followed by the French-Billings era (1914-1954); the Rockefeller era (1954-1992); and the National Park Service era (1992 to date).

Charles Marsh Sr. (1765-1849), who purchased the property in 1789, was a Dartmouth-educated lawyer who farmed, maintained a law practice, served as federal district attorney and in the U.S. Congress 1814-1816, and engaged in philanthropic activities to benefit the town of Woodstock. During his period of ownership, pioneer land clearance and overgrazing laid bare the previously forested landscape of Vermont. While Charles Marsh's contemporaries had little concern for how their actions impacted the environment, his son George Perkins Marsh (1801-1882) was at the forefront of developing conservation thought. George used his firsthand experience of landscape change in Vermont to frame his arguments in his 1864 book *Man and Nature*. Central to his thesis was the observation that all of man's activities impacted nature, and any negative effects degraded both the landscape and society as a whole. *Man and Nature* was an early indicator of burgeoning concern about the environment and educated the public about the environmental impact of their actions.

Frederick Billings (1823-1890), the second owner of the property, personified the gentleman farmer of the late nineteenth century. After making a fortune in the California Gold Rush, Billings returned to Woodstock, the village that had been his childhood home. In 1869 he purchased the Marsh property, allowing him to practice the conservation advocated by George Perkins Marsh. In addition to creating a model landscape at Woodstock that featured reforested land and implementing the latest scientific agricultural practices on the farm, Billings maintained his residence in New York City, traveled widely, and increased his fortune as a director and president of the Northern Pacific Railroad. The carriage roads were primarily developed during Billings' ownership. They gave easy access to the estate's hillside lands, making possible good oversight of the restoration efforts, and demonstrating progressive forestry and farming to the community. The roads also provided pleasurable recreation, opening routes to enjoy the picturesque landscape and views.

After Frederick Billings' death in 1890, his wife and daughters inherited the property, maintaining and augmenting it in the same conservationist spirit. One of his granddaughters, Mary French (1910-1997), married Laurance Spelman Rockefeller (1910-2004), ushering in a new era of conservation. While the Rockefellers continued to maintain the property in accordance with conservationist thought of the mid to late twentieth century, they focused more on tourism than already-established land use patterns. The Rockefellers decided to make the property a public monument to American conservation by donating it to the federal government

in 1992, and the property became a national park. The park opened to the public in 1998.

Conservation principles influenced the development of the estate, including the carriage roads on which this report focuses. The carriage road network traverses the 555-acre park, giving access to the formal Mansion grounds as well as to the forested Mount Tom and beyond. The carriage roads are a dominant feature of the landscape, and a characteristic amenity of a Victorian country estate, providing recreation as well as access to the agricultural and forestry projects upon which Billings embarked.

The landscape has been the focus of an Historic American Landscape Survey (HALS) documentation project, HALS No. VT-1. Additional information on the Mansion grounds and structures on the property as well as general history about the site and its occupants can be found in John E. Auwaerter and George W. Curry, *Cultural Landscape Report for the Mansion Grounds*; Eliot H. Foulds, Katherine Lacy and Lauren Meier, *Land Use History for Marsh-Billings National Historical Park*; and Sarah Wilcke, Leslie Morrissey, Jennifer Treadwell Morrissey, and James Morrissey, *Cultural Landscape Report for the Forest at Marsh-Billings-Rockefeller National Historical Park: Site History and Existing Conditions*. This report will provide a description of the carriage road network and trace its development.

Description¹

The drives approaching the Mansion follow the rolling topography of the grounds rather than being laid out in a geometric pattern, and as a result the drives seem to be an integral part of the landscape. Behind this formal system of drives and manicured grounds, the mature forests rise up, creating a contrast between the somewhat wild, natural state of the forested hills and the more contrived beauty of the Mansion grounds. Mount Tom is covered predominantly with mixed northern hardwoods, like the surrounding hillsides. It also supports white pine and spruce plantations, as well as hemlock and sugar maple/white ash forests. Several fields and pastures scattered across the hillsides provide an open contrast to the forest. Mount Tom's north and south peaks both overlook the village of Woodstock, with long views to the east and west along the river valley and U.S. Route 4. The higher north peak rises 1359', while the south peak reaches only 1250' but provides the better view of the village. The Mount Tom carriage road

¹ A site visit made in November 2003 by the author provides the basis for the description of the carriage roads, as well as John Auwaerter and George W. Curry, *Cultural Landscape Report for the Mansion Grounds*, Vol. 2, "Existing Conditions & Analysis" Draft (Boston, MA, National Park Service, 2002), and descriptive information provided by Katie Wollan, summer field team historian, summer 2001, and Janet Houghton, Museum Curator, Marsh-Billings-Rockefeller National Historical Park.

network provides access around the Mansion and its immediate grounds at the eastern base of the mountain, traverses the mountain from east to west with an outlet at the mountain's western base along Prosper Road, and provides additional scenic byways to the south peak summit, the north ridge, and the pond called the Pogue.

The carriage road network had nearly reached its current form by 1898 with only two major changes occurring in 1902 and 1978. Since 1970, the carriage roads have been augmented by trails for cross-country skiing, so that together the roads and trails constitute 20 miles that cover the entire park. The drives on the Mansion grounds provide access from the public streets, and connect the auxiliary structures scattered across the formal grounds. They also connect with the carriage roads that traverse the forested landscape. The network through the Mount Tom forests and pastures can be divided into several discrete but interconnected segments. One segment can be entered at the secondary entrance to the Mansion grounds, located at the eastern base of Mount Tom. The upper and lower Pogue Carriage Roads ascend the mountain on its north slope from the Mansion grounds and connect with scenic drives: the Pogue Loop, the North Ridge Road, and the Summit Drive. The Maple Grove Road extends as a loop from the North Ridge Road. McKenzie Road constitutes another segment, connecting the North Ridge Road and the carriage road network as a whole to Mount Tom's western limits, and exiting the property at Prosper Road. A series of smaller sections of road interconnect these elements at the top of the mountain.

The system of carriage drives on the Mansion grounds will be examined first, as they make up the formal introduction to the property as a whole. Public roads surround the entire property, and it is to these that the drives connect. Approaching the park from the village of Woodstock to the south, Elm Street (Vermont Route 12) crosses the Ottauquechee River on the iron Elm Street Bridge (for more information see HAER No. VT-3). Elm Street then forks into a Y, with the north fork continuing as Elm Street around the eastern and northern edges of the park. The south fork becomes River Street, which follows a portion of the southern edge of the park before turning away to follow the river. Charles Marsh Senior and Jesse Williams had Elm Street laid out and built in 1797 as part of a project to benefit both the village of Woodstock and themselves. Both men had purchased land north of the village green for their law offices, so an access street was vital. Marsh had the first Elm Street Bridge, a covered wooden bridge, built in 1797 to connect his house with Elm Street, since the Ottauquechee River lay between them. After the completion of the bridge, "a new access road much closer to the house" was constructed, which was chartered as the Royalton and Woodstock Turnpike in 1800. By 1842, the turnpike had become a public road and was designated as Elm Street.² The street physically

² Auerwaerter, Vol. 1, pp. 37, 40; John Auerwaerter, *Cultural Landscape Report for the Mansion Grounds*, Vol. 2, "Existing Conditions & Analysis" Draft (Boston, MA, National Park Service, 2002), pp. 2-3. The turnpike was a toll road that extended north to Pomfret and Royalton. See H. Eliot Foulds, Katherine Lacy, and Lauren Meier, *Land Use History for Marsh-Billings National Historical Park* (Division of Cultural Resources Management, Cultural Landscape Program, Olmsted Center for Landscape Preservation, North Atlantic Region, National Park Service, March 1994), 27.

and visually separates the low intervalle farmland to the east from the higher terrace on the west, on which the Mansion is located and behind which rises the forested Mount Tom.

Since public roads border the estate, a fieldstone perimeter wall and a mature 1905 hemlock hedge serve to create a natural shield along the perimeter of the park. The perimeter wall stands about 3' high and 3' wide, with five openings to the Mansion grounds: "at the Lower Summerhouse, the Main Entrance Drive, the Carriage Barn Drive [Secondary Entrance Drive], at a path opposite River Road, and at a drive near the Village of Woodstock boundary on Route 12."³ The Main Entrance Drive, virtually unchanged since the Billings era, has a Y junction with Elm Street. Each leg of the Y measures 100'.⁴ Filling the space in the fork of the Y is a planting of ferns and three birch trees, introduced in 1997. At the apex of the Y, stone pillars with lanterns flank the drive to mark the formal entry to the grounds. The entrance drive is 12' wide, with hidden steel edging to contain the gravel surface.⁵ The drives on the formal grounds were always graveled, but the Rockefellers replaced all the antique cobblestone gutters with steel edging around 1956. To the north of the Main Entrance Drive is a tennis court (formerly a croquet ground and the site of the original Marsh house) that is somewhat masked by a stand of birch. A vast green lawn with scattered mature trees constitutes the formal front lawn of the Mansion, and the gently rolling topography and the naturalistic plantings create a picturesque approach. This naturalistic landscape is further highlighted by the view from the Mansion, which is of the intervalle and forested hills in the background. The Main Entrance Drive continues up the front lawn, "following a southward-leaning arc for 150 feet" to the Mansion at a 10 percent incline, where it branches off to pass under the porte-cochère.⁶ It then loops around to form a circle, the layout of which dates back to a 1902 redesign by Martha Brookes Brown Hutcheson. The circle measures 80' in diameter, in the center of which is a magnificent Norway spruce and paper birch.⁷ The entrance drive also continues toward the back of the Mansion, where it forks. One fork heads north to the Carriage Barn, and is called the Carriage Barn Drive. The other fork heads southwest behind the Mansion, and uphill toward the Belvedere.

The Belvedere is a white frame structure, built 1872-74, and resplendent with gingerbread ornamentation in the Swiss Chalet style. An indoor bowling alley, dating back to the 1870s, is attached to the rear. The approaching drive was once known as the "road to the Hothouses," because there were large glass greenhouses (now demolished) attached to the Belvedere. It was also called the "Laundry Road," because the Laundry formerly stood on the

³ Auwaerter, Vol. 2, "Mansion Terrace" section, p. 31. The Lower Summerhouse, along with the Upper Summerhouse, flank a "curving walk linking River Street at the Elm Street Bridge with the Mansion" for pedestrian access to the grounds during the Billings period of ownership. See Auwaerter, Vol. 2, "Mansion Terrace" section, p. 9.

⁴ Auwaerter, Vol. 2, "Mansion Terrace" section, p. 4.

⁵ The drive was originally 10' wide but probably expanded to the current 12' with the 1956 removal of the cobblestone gutters. Auwaerter, Vol. 2, "Mansion Terrace" section, p. 4.

⁶ Auwaerter, Vol. 2, "Mansion Terrace" section, p. 4.

⁷ Auwaerter, Vol. 2, "Mansion Terrace" section, p. 4.

site of the current Mansion parking lot. The Belvedere Drive, constructed in 1872, passes behind the Mansion and between the formal gardens to the left and a looming stand of Norway spruce to the right. It then passes along the north side of the Belvedere and “terminates in a circle at the west side of the Garden Workshop.” The drive measures 10' wide with a length of 600' and is constructed of gravel with steel edging, like the rest of the drives.⁸ Since the land rises rather steeply behind the Mansion and the Belvedere, a fieldstone retaining wall, 160' long and 1' to 8' tall, contains the slope.⁹ The Wood Drive and Upper Meadow Road diverge behind the Belvedere and extend into the forested regions of the estate. The North Street Drive, also constructed in 1872, descends from the Garden Workshop circle to North Street. Constructed to give access to the hothouses, it now connects the Belvedere area with North Street. The graveled drive is about 8' wide and extends only about 400' before crossing the western park boundary, marked by posts.¹⁰ The landscape along both the North Street Drive and Belvedere Drive consists of rocky outcroppings with mature trees, including Norway spruce and white pine.

A Secondary Entrance Drive to the Mansion grounds lies directly across from the visitor center for the Billings Farm & Museum. This more informal drive opens up to Elm Street with no announcement except a break in the fieldstone wall that surrounds the Mansion grounds. The Secondary Entrance Drive measures 12' wide, except for its three-branch intersection not far inside the wall, where it is 18' wide. It extends 360' on a 10 percent slope, and is surfaced with gravel and contained with steel edging.¹¹ The Secondary Entrance Drive separates into three branches just below a grassy swale that descends behind the tennis court. The north branch is the Pogue Carriage Road, built before 1869, which enters the forest and leads to Mount Tom. The west branch, called the Carriage Barn Drive, was built about 1870. It ascends past the Double Cottage, a house that serves as a private residence for park staff, and the Generator Garage, a park maintenance building. The Carriage Barn Drive then turns sharply south to pass behind the Carriage Barn, which was rehabilitated in 1998-99 for use as the visitor center and administrative offices for the park. The Carriage Barn Drive terminates where it joins the Main Entrance Drive. This junction was altered in 1903-1904 with the Martha Brookes Brown Hutcheson plan, in which “the Y intersection” that had existed at the connection with the Main Entrance Drive was redesigned into a T.¹²

The final branch is the Secondary Entrance Drive, newly built in 1978. It was built to bypass “the narrow area at the back of the Carriage Barn,” because that narrow passage (and the equally narrow passage behind the Belvedere) had become too cramped for fuel delivery trucks and other modern maintenance vehicles to safely enter the Mansion grounds. The Carriage Barn Drive and the Secondary Entrance Drive meet in a V south of the Carriage Barn visitor center.

⁸ Auwaerter, Vol. 2, “Mansion Terrace” section, p. 6.

⁹ Auwaerter, Vol. 2, “Mansion Terrace” section, p. 32.

¹⁰ Auwaerter, Vol. 2, “Mansion Terrace” section, pp. 6-7. The drive also provided a way for the Head Gardener who lived on North Street to reach the Mansion grounds.

¹¹ Auwaerter, Vol. 2, “Mansion Terrace” section, p. 7.

¹² Auwaerter, Vol. 2, “Mansion Terrace” section, p. 5.

When the Carriage Barn became the park visitor center, a “section of the drive leading to the front (south) entrance of the Carriage Barn” was renovated into a walkway and apron surfaced with flagstones, and a short path for approaching pedestrians was introduced, leading from the Secondary Entrance Drive up new stone steps onto the flagstone apron.¹³ This part of the estate, therefore, has seen the most alteration to the carriage roads as the uses of the estate have shifted from private home to public space.

The Pogue Carriage Road, also historically known as the Mountain Road, begins as a branch extending north from the Secondary Entrance Drive. It is a crowned, graded and mostly graveled road, measuring about 10' to 12' wide. It gently ascends a slope before curving to the west. A wooden double swing gate that restricts vehicular access to the road network marks the departure from the Mansion grounds area. The principal structure encountered on the road is the Woodshed, a large frame storage shed built in 1876, and situated at the edge of a clearing along the north side of the road. The Woodshed loft, with its distinctive triangular gable end and sliding entry doors, opens directly onto the Pogue Carriage Road. An infrequently used road called the Lower Woodshed Road diverges from the Pogue Carriage Road in a Y intersection at the east end of the clearing. This road, built in 1876, extends into the woods north of the Woodshed “where it consists of two tracks that continue in a westerly direction beyond the Mansion grounds.” A branch from the Lower Woodshed Road connects with Vermont Route 12 450' northwest of the Woodshed, where it is “identifiable by a break in the perimeter stone wall.”¹⁴ The road was probably used for transporting wood until about 1960, then fell into disuse.¹⁵ Smaller drives, like the Lower Woodshed Road, are found throughout the property, merging with and diverging from the main carriage drives.

The Pogue Carriage Road has an upper section running almost parallel to it, higher up the wooded slope to the south. The two parallel roads are joined by a short descending connector road that meets the lower Pogue Carriage Road in a Y intersection. This junction vividly illustrates the Billings' approach to landscape. A stream runs through a channel of laid fieldstone. After trickling over rocks that have created a gully, the stream passes under the Pogue Carriage Road through a metal pipe that has been disguised with cut fieldstone. The impact on the natural environment has been minimized by containing and channeling the water in unobtrusive engineered structures that utilize natural materials and blend in with the surrounding landscape. The upper and lower Pogue Carriage Roads eventually converge farther west, where a wooded median narrows to a V at the intersection.

After the upper and lower roads converge, the Pogue Carriage Road, crowned, graveled and guttered, continues to ascend the north slope of the mountain in a nearly straight line west toward the Pogue. Evidence of erosion along the slope is visible in the gullies lined with riprap

¹³ Auwaerter, Vol. 2, “Mansion Terrace” section, p. 5.

¹⁴ Auwaerter, Vol. 2, “Hill” section, p. 8.

¹⁵ Auwaerter, Vol. 2, “Landscape Features, Hill” section.

on either side of the road. The Pogue stream has necessitated retaining walls and culverts at the junction of the upper and lower roads. A cut fieldstone wall along the stream edges constricts the water flow to a narrower course, and a similar wall also retains the road, which is at a higher grade. The stream passes under the road by a culvert faced with fieldstone before cutting its way, snakelike, to the junction of the Pogue Carriage Road and the Summer Pasture Loop. The stream continues downhill until it reaches Barnard Brook, which courses along the north side of Vermont Route 12. The Pogue Carriage Road enters a thick hemlock forest, crests and enters a Y intersection. A stone watering trough (one of two in the park) is located at this junction. The trough is a single large fieldstone in the shape of an inverted triangle, with two bowls carved into the upper surface, both fed by a pipeline from the Pogue.

The northwest branch of the Y intersection, called the Summer Pasture Loop, follows the northern edge of the pasture toward the Spring Lot and the North Ridge Loop. The Summer Pasture Loop provides travelers with a distinctive landscape experience. Along the Pogue Carriage Road, mature trees form a thick canopy, and moss-covered stone retaining walls and culverts create a lush, shady environment. The open, light-filled Summer Pasture offers a great contrast. The Summer Pasture Loop has a trail branching off to the north, which was probably originally a carriage road, judging from its width and connection with the extant road. The trail has fallen into disuse. At the completion of the loop, an hourglass intersection connects this network of carriage roads with those that traverse the northwestern portion of the property: the North Ridge Road and the McKenzie Road.

The North Ridge Road features an overlook, a framed vista with a tall understory obscuring the view of the opposite hills. McKenzie Road, a portion of the North Ridge Road network, descends to Prosper Road, an unpaved town road that connects the villages of West Woodstock and Prosper, and forms the western boundary of the park. McKenzie Road descends westward along the northern slope of the mountain to the overgrown and abandoned site of the former McKenzie Farm, passing through red and white pine plantations and mixed northern hardwood stands. These plantations, with their clearly visible rows and uniform spacing, set the landscape of this road apart from the rest of the road network.

Returning to the Pogue Carriage Road at its crest, the southwest branch of the Y intersection is a continuation of the road, ascending toward the Pogue and the Summit Drive. The crowned and graveled road, ferns lining its edges, hugs the curves of the Pogue stream and passes through a hemlock forest. Midway along this ascent, a granite marker carved with the words "Rogers Tract" stands slightly askew at the side of the road, to mark the southeastern edge of one of the pioneer land claims that make up the property.¹⁶ As the road passes the end of the

¹⁶ The Rogers tract is named for an original grantee of the land patent that encompassed this area. During the Marsh period of ownership, this tract became part of the property. See Foulds, p. 25.

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Summer Pasture, it turns west towards the hourglass “four corners” intersection where it plateaus. There the Pogue Carriage Road continues west to the Pogue. The north “corner” is the completion of the Summer Pasture Loop, while the south “corner” is the Summit Road.

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The Summit Road, crowned and graveled, immediately crosses a small stone culvert over the Pogue stream. Bending to the right, the road quickly emerges from the dark cover of the woods to traverse a bright expanse of meadows, called the Elm Lot and the Maple Lot. A dense but narrow line of trees edges the road on the east, shielding the Maple Lot from view. The crowned and graveled road surface ceases at the meadows and becomes a simple double wheel track in the meadow grass. From this vantage point, a large red pine plantation is visible on the southern edge of the Elm Lot. Beyond the Elm Lot the road turns east briefly, passing under the dark canopy of the trees, where an unmaintained spur road heads south to the Norway Spruce Allée, planted in 1887. This visually dramatic allée, a sunken and disused roadbed confined between rows of tall spruces, is located above the former Hilltop Farm (developed by Frederick Billings, and now rebuilt and in private ownership). The allée is a short, isolated remnant of a road that once descended to the Hilltop Farm yard, now outside the park boundary.

After passing the spur, the Summit Road emerges from the woods to reveal the vista across the meadow called the French Lot. On a clear day the vista, framed by the Norway Spruce plantation on the west and the European Larch plantation of 1887 on the east, offers a view of the open meadow in the foreground, the verdant hillsides of the Ottauquechee River valley in the background, and Mount Ascutney on the distant horizon, against a vast sky.

As the Summit Road leaves the National Park Service property and enters the Town of Woodstock's Billings Park, the roadway changes to a flat graveled surface, exhibiting the discontinuity caused by varying maintenance schedules and procedures over many years of separate ownership. (The 155-acre Billings Park was originally a part of the historic Mount Tom forest lands of Frederick Billings, and was donated to the town by his heirs in 1953.) The road is poorly graveled and covered with natural detritus. Without gutters, narrow gullies have formed across the roadbed in places. The road bends right, returning to the forest, but reveals briefly, across the French Lot, a clear view of the Norway Spruce plantation. The road then winds its way through the forest until it reaches the south face of the North Peak.

Only a steep and narrow footpath ascends to the higher North Peak. The Summit Road continues to Mount Tom's South Peak, hugging the south face of the mountainside on the way. A stone wall supports the road on the downhill slope, as it curves with the changes in terrain. As the road reaches the end of the North Peak's face, a 20' tall, cut stone causeway carries the road across a deep ravine to the back side of the South Peak. Mature trees obscure any vistas that may once have been intended from the causeway. Leaving the causeway, the road ascends to the South Peak summit and overlook, and terminates in a loop. The loop is retained and supported by a low stone wall at its outside edge, a feature characteristic of the entire road. Grass has grown over much of the road surface; trees and other vegetation fill in the center of the loop. Two cast iron hitching posts stand on the inside edge of the loop, allowing carriage drivers to tie up long enough to enjoy the view. The "Precipice Trail" and the "Faulkner Park Trail" are steep footpaths that descend in switchbacks across the rocky face of the peak, allowing pedestrians to descend directly to the village.

Returning to the four corners intersection, the Pogue Carriage Road ascends through the woods to the Pogue's southeast corner.¹⁷ The Pogue (also called "Pogue Hole"), a small body of water, was described in 1910 as a "fearsome" place because it was formerly "a quaking bog and swamp hole of untold depth which swallowed everything that came within its reach without remorse, and gave never a hope of rescue." With Billings' improvements, however, "its outlet has been dammed and it is now a miniature lake in the bosom of the hills, B the central point in a region of rare beauty."¹⁸ The effort to turn such a "fearsome" place into an attractive pond reveals that Billings wanted the Pogue to be a picturesque destination point for the carriage road network, as well as a useful source of clean-flowing water and wholesome ice for winter harvest and storage. The view from the Pogue Carriage Road across the Pogue reveals calm water and open space, in contrast with the close, intimate scale of the forests through which travelers have moved up to that point. The road that encircles the pond, called the Pogue Loop, was built in 1890. It is elevated above the water on banks at the southeastern corner, where the pond has its outlet at a grass-covered dam. A spur connects the Pogue Loop with the North Ridge Road. Soon after that junction, the Pogue Loop curves to the north with the contour of the shore; the woods filter the view of the water. In the southwest corner of the loop, the road leaves the shore and meets the northern edge of the Elm Lot. Here the graveled road surface gives way to a two-wheeled track in the edge of the meadow. The loop then rejoins the shore, regains its graveled surface, and returns to its beginning point at the dam.

While the upper and lower Pogue Carriage Roads, Summit Road, Pogue Loop and others cover the eastern part of the property, there are also roads in the western part adjacent to the Mansion grounds. Immediately behind the Belvedere, the Upper Meadow Road ascends from the Belvedere Drive. The Upper Meadow Road, which has not been substantially altered since its construction around 1872 and 1878, ascends steeply before curving around the Upper Meadow, a clearing with a Horse Shed at the southern edge. The Upper Meadow was once the site of the kitchen garden that Billings established, in accordance with Robert Morris Copeland's plan, around 1874. The Horse Shed was preceded by the Stone Shed (demolished), where Billings' workmen dressed fieldstone to use in structural foundations, garden features and road construction on the estate. A "stone dump" 50' along the road beyond the Horse Shed contains flawed or discarded stone steps and other cut stone abandoned by the workers.

Passing across the middle of the meadow from south to north is a track called the Upper Meadow through-road, measuring 380' long. The track probably follows the approximate path of a Billings-era road bisecting the kitchen garden, but it is not graveled, crowned, or provided with a substrate.

¹⁷ The Pogue was originally a bog with a dam erected in 1890 and rebuilt in 1991. See Foulds, p. 110.

¹⁸ Joseph L. Dana, *A Few Notes, Historical and Other, Concerning the Town and Village* (Woodstock, VT: The Elm Tree Press, 1910), 16-17.

The Upper Meadow Road meets the upper Pogue Carriage Road at the southwestern corner of the meadow, by the Horse Shed. A wooden double swing gate just beyond the Horse Shed marks the start of the Mount Tom forest road network. Just south of the Horse Shed a spur divides into two branches. The short southeastern branch curves downhill to the Garden Workshop circle. The southwestern branch leads to the River Street Cemetery, outside the park boundary. This road is fairly well-defined and still crowned, although it is not graveled anymore. The topography is hilly, dropping off steeply to the east. To the west, the slope rises up gently with an abundance of rock outcroppings. The lack of formality of this section of drive is apparent in the absence of culverts to channel the streams that currently flow unchecked across the roadbed. A wooden double swing gate marks the park boundary, and the road continues down to the cemetery and then to River Street.¹⁹

The carriage road network does not adhere to a geometric layout, but instead is dictated by the land. The few engineered structures, like culverts and retaining walls, are constructed of laid fieldstone so that they are unobtrusive elements in the natural landscape. The result is a picturesque network of drives through mature forests punctuated by rocky outcroppings, with scenic features like streams, open pastures, high vistas, overlooks, and the view from the causeway on Mount Tom enhancing the landscape experience.

Charles Marsh and the Deteriorating Vermont Landscape

The first owner of the property that would become the Marsh-Billings-Rockefeller National Historical Park was James Cady, a wheelwright, who sold the 50-acre farm to Charles Marsh Sr. on January 5, 1789. Originally, the land covered part of the present Mansion grounds and part of the intervalle, but Marsh added additional land to the property in 1800 and 1803. He oversaw farming operations on his property while also practicing law and engaging in civic improvements, like the construction of Elm Street and the first Elm Street Bridge. The civic improvements were probably motivated by his reported ambition to see Woodstock named the county seat. His colleague James Barrett stated: “he told me that one object he had in making his house in Woodstock was to do...the utmost that he could to establish the county seat in that place, and to build up a village that would be eligible and pleasant to reside in as a home.”²⁰ In 1807 Marsh constructed a dignified brick house that matched his grand visions of the village. His new house was the successor to an inferior older frame structure nearby. It was sited on a terrace above the road, and gave the Marsh family a commanding presence in town, commensurate with Marsh’s stature not only as a lawyer, but also as a federal district attorney and U.S. Congressman. The house provided “expansive views east over the Ottauquechee River

¹⁹ See Auwaerter, Vol. 2, “Hill” section, pp. 4-7; see p. 6 for Upper Meadow Road, pp. 6-7 for Upper Meadow Through Road.

²⁰ James Barrett, LL.D., “Memorial Address on the Life and Character of the Hon. Charles Marsh, LL.D.,” read before the Vermont Historical Society, October 11, 1870 (Montpelier: Journal Steam Printing Establishment, 1871), 17.

intervale” as well as a “commanding view south over Woodstock village” and became “the focal point of the vista looking north along Elm Street.”²¹ The house reflected Marsh’s elite status, with its high quality craftsmanship and design. Marsh was also renowned in the village for his “princely hospitality” to all visitors.²²

The estate had a dual purpose during Marsh’s ownership, serving as both a working farm and a country estate. The farmland was “some of the best agricultural land in the region” on the intervale of the Ottauquechee River. Elsewhere in Vermont farmers struggled with a short growing season, rough terrain, poor soil, and limited access to markets. In response to ever-worsening crop yields, Vermont farmers turned to sheep raising as their economic salvation in the first half of the nineteenth century. Most of the hillsides, including the east side of Mount Tom, were cleared for grazing and for timber sales.²³ The dramatic change in the landscape was of little concern to Vermont’s early settlers and farmers, however, who had been taught that the land was solely for man’s use and full of abundant resources. Clearing the land heralded moral victory, as it represented man’s control of the evil wilderness. Shifts in thought about the landscape would result in changing ideas about its use, as seen in the Billings era.

Marsh’s success in forging his place in the rural wilderness required a country estate that could be easily approached by a network of lanes. A Marsh period plan of the property shows a north lane terminating in a Y with the Royalton and Woodstock turnpike (now Elm Street). This lane may have been for farm work since it was 50’ across, wider than the parallel south lane. The south lane served as the formal entrance drive to the Marsh house; access to this lane was also from the turnpike. The north and south drives met to form a box around the house. To the rear of the house was a road that appears to have extended part way up the hill to what is now called the Upper Meadow.²⁴ This road would have given access to the utilitarian farm structures tucked away behind the formal house and entrance. This configuration of space reveals the duality of Marsh’s role as farmer and professional, with the workspaces hidden behind the façade of formality and grandeur necessary for a public figure to exhibit. The formal and orthogonal layout of the drives differs from the natural, picturesque aesthetic that would later dominate the landscape layout during the Billings era of ownership.

In 1848, Charles Marsh left the property to his youngest son, Charles Marsh Jr. (1821-1873) who owned the property for twenty years and made few improvements. Charles Jr. had no heirs, and in 1869 he probably decided to sell the property to Frederick Billings, the railroad magnate, because of ill health and accumulating financial problems.

In a memorial speech at the time of his death in 1849, Charles Marsh Sr. was eulogized as a “controlling influence in giving form and character to the social organization and

²¹ Auwaerter, Vol. 1, 43.

²² Henry Swan Dana, *History of Woodstock, Vermont* (Cambridge: The Riverside Press, 1889), 193.

²³ Auwaerter, Vol. 1, 35.

²⁴ Foulds, Figure 9, “Marsh Period” map, 1789-1869, shown c. 1869; Auwaerter, Vol. 1, pp. 44-45.

development” of Woodstock, as well as making his “baronial family home” open to both “the leading families of New England and New York, as well as the poor and lowly of his own neighborhood.”²⁵ While Charles Marsh may have created a “baronial family home,” he is now remembered as the father of George Perkins Marsh, who is recognized as the founder of the American conservation movement.

George Perkins Marsh and the Beginnings of American Conservation

Living on the family property exposed George Perkins Marsh to man’s impact on the environment, as Vermont cleared its forests for tillage, fuel, timber, and potash needed by New England textile mills. Grain cultivation stripped the already poor soil of nutrients, and the clearing of land for grazing by sheep and cattle caused not only degradation of the landscape, but also runoff that choked and polluted the waterways.²⁶ Marsh left Woodstock at the age of fifteen to attend Dartmouth College, where he studied law like his father and brothers. After graduation he did not return to Woodstock, but instead embarked upon a varied career: he was admitted to the bar in 1825; he served in both the Vermont legislature and the U.S. Congress; he became an expert in Scandinavian and English language and literature; and he was U.S. Minister to Turkey, and to Italy from 1861 until his death in 1882. His concern for Vermont’s land remained throughout his life, however, and in 1864 he wrote *Man and Nature*, which has been described as the “fountainhead of the American conservation movement.”²⁷ The ideological climate of the time also impacted his thinking about the environment. The Romantic conception of wilderness as picturesque and sublime rather than a degenerative force, which had colored his father’s generation’s ideas about landscape, allowed Marsh to argue that the wilderness was something to be protected. Furthermore, *Man and Nature* also reflected “the nineteenth century view of progress” with its “pragmatic optimism” as well as its “belief in the efficacy of reform.”²⁸ Unlike the later conservationist John Muir, who can be seen as the embodiment of Romanticism, Marsh held a more pragmatic view that borrowed only parts of Romantic thought. While Muir advocated leaving the wilderness untouched, Marsh was more interested in the needs of man and hence a wise use of resources, perhaps in part the result of growing up on a working farm.²⁹

In *Man and Nature*, Marsh delineated how “virtually all human changes led to disequilibrium and destruction” of the environment, which markedly differed from the earlier

²⁵ James Barrett, “Memorial Address,” “controlling influence” on p. 49, other quotes on p. 47.

²⁶ David Lowenthal, *George Perkins Marsh: Prophet of Conservation* (Seattle: University of Washington Press, 2000), 4.

²⁷ Foulds, p. 9. See also David Lowenthal, *George Perkins Marsh: Prophet of Conservation* for more biographical information.

²⁸ Foulds, p. 9.

²⁹ Roderick Nash, *Wilderness and the American Mind* rev. ed. (Clinton, MA: The Colonial Press, Inc., 1974), 129.

view that taming the wilderness was beneficial.³⁰ The central thesis of Marsh's work was that "man was destroying the balance of nature, but that with foresight, knowledge, and technical skill he could still reverse the destructive process."³¹ To illustrate his concern about American environmental degradation, he drew parallels between the United States and the Mediterranean, which had been left arid due to overgrazing and poor agricultural practices. Environmentalists like Muir viewed the wilderness and civilization as diametrically opposite; Marsh saw the two as mutually beneficial. The environment served man's needs but had to be protected and used carefully.³² Therefore, he advocated the advancement of the newly developing fields of scientific management and agricultural education so as to manage natural resources and mitigate human actions on the landscape. This was a marked contrast with contemporary attitudes that viewed natural resources as replenishable.³³ The key to Marsh's approach, ultimately, was its emphasis on responsible use of the land and its resources. These ideas resonated with Frederick Billings, the next owner of the property. In this way, despite the fact that George Perkins Marsh did not reside at the estate as an adult, he indirectly influenced the conservation of the landscape of his childhood home.

Frederick Billings, Practitioner of Conservation

Frederick Billings' acquisition of the Marsh property in 1869 ultimately resulted in a profound transformation of the landscape, and deeply influenced all later development. Billings' efforts were informed by early scientific agricultural practices, reforestation techniques, and conservation thought. It is important to point out that despite his creation of a model farm and his undertaking of a reforestation project on the property, "Frederick Billings was a conservation practitioner rather than a shaper of American conservationist thought."³⁴ The estate reflected "a progressive 19th-century conservation philosophy that he drew in large part from his experiences in the West, national design styles, and the writings of George Perkins Marsh."³⁵ This effectively places Billings' work on the estate within a larger context of American conservation thought.

Frederick Billings was born September 27, 1823 to Sophia Wetherbee Billings and Oel Billings in Royalton, Windsor County, Vermont. His family had to move to Woodstock to be closer to the sheriff when Frederick was a young child due to a debt Oel owed his father-in-law. Despite their financial troubles, the family managed to send Frederick to Kimball Union

³⁰ Mark Madison, *Landscapes of Stewardship* (January 1999), 15, available at Marsh-Billings-Rockefeller National Historic Park library [hereafter MABI].

³¹ Foulds, p. 8.

³² Nash, p. 104. See also Jan Albers, *Hands on the Land: A History of the Vermont Landscape* (Cambridge, MA: The MIT Press, 2000), Chapter 4.

³³ Lowenthal, 274. See also Auwaerter, vol. 1, pp. 31-34.

³⁴ Foulds, p. 13.

³⁵ Auwaerter, Vol. 1, p. 64.

Academy in Meriden, New Hampshire. In 1840, he went to the University of Vermont, which became the “center of his life.” After his brother Edward died in a drowning accident, Frederick seems to have felt compelled to emulate him so as to prove he was “at least as worthy of his parents’ regard as Edward had been.” This thought process undoubtedly influenced his decision to study law and enter politics, a path that Edward had successfully taken. As with most decisions not based on personal interest, Frederick soon became bored with his chosen career and set his sights on creating a new life for himself in California. The impetus for this move probably came from his sister Laura, with whom he had a very close relationship. Laura’s husband, a sea captain, had given up whaling and wanted to try his fortunes in California; in order to be near her husband, Laura decided to go as well. After surviving the long and difficult journey, Laura died from “Chagres fever,” malaria or yellow fever commonly acquired on the Panama crossing. Devastated, Frederick nevertheless decided to pursue his fortunes in San Francisco.³⁶

Billings had a varied professional career while in California. He became the state’s first attorney general, with “his most important action” being “to enforce the federal government’s claims to land assigned to it, thus establishing the precedent that in time would protect the Presidio and, today, Golden Gate National Recreational Area.”³⁷ His experience amid the California environment and contacts with environmental advocates like Horace Bushnell, Frederick Law Olmsted, and John and Jesse Frémont, encouraged his conservationist tendencies. While his motives were “largely emotional and romantic, rooted in patriotism and a delight in the unknown and picturesque,” they were tempered by the knowledge that such sites had “commercial potential...as destinations for tourists.”³⁸ In 1850 Billings and several associates created the law firm of Halleck, Peachy & Billings, specializing in land claims, which became the “most thriving legal house in San Francisco throughout most of its business life” until its demise in 1861.³⁹ With his earnings, Billings was not averse to investment in various schemes, as evidenced by his purchase with his partner Peachy of Borax Lake in 1858. The lake provided the nation’s supply of borax until the 1873 discovery of deposits in Nevada and California. Billings also held part ownership in the Montgomery Block, “San Francisco’s largest, most expensive and most desirable office property,” and engaged in various philanthropic endeavors such as the San Francisco Bible Society and California’s first Agricultural Society.⁴⁰ In 1861, Billings returned to the East to purchase supplies for the Union Army and met Julia Parmly in New York City. On March 31, 1862, the couple married. Not only had Billings become a “minor social lion, a figure to be reckoned with” in San Francisco, but he was also now connected with New York society.⁴¹ By 1863 Frederick decided to leave California and return to

³⁶ See Robin W. Winks, *Frederick Billings: A Life* (Berkeley, CA: University of California Press, 1998) for more biographical information. Quote about Frederick proving his worthiness from p. 22.

³⁷ Winks, p. 41.

³⁸ Foulds, p. 11.

³⁹ Winks, p. 48.

⁴⁰ Winks, p. 59.

⁴¹ Winks, p. 65.

the East Coast. While the decision may have been led by his wife's desire to move, "it is clear that the state of Frederick's health, his attitude toward his work, and his sense of home" were the motivating factors.⁴² Changes in land law may also have made maintaining his law practice difficult. Whatever the reasons, in 1863 Frederick reestablished himself and his family in New York and Vermont.

Billings' next career was in the burgeoning railroad industry, which he saw as a benefit to the country. As historian Robin Winks points out, while Billings "realized that many towns had fallen into decline when they were bypassed by the railroads," he did not see this as detrimental. Rather than seeing the railroad and attendant industrialization as destroying small town life, "he thought urban life was, on the whole, good" and "believed railroads had helped to slow northern New England's decline, not contribute to it," so that overall "life was better."⁴³ In keeping with this view of the railroad's benefits, Billings helped raise money for the construction of a railroad from White River Junction, Vermont to Woodstock, which was completed in 1875. He also became investor and chairman of the land committee for the Northern Pacific Railroad (NP), described as "the single greatest American corporate undertaking of the nineteenth century."⁴⁴ By 1873, he had become its president. Passing through Wisconsin, Minnesota, the Dakotas, Montana, Washington and Oregon, the NP was the "only railroad planned from the outset to be managed as one enterprise."⁴⁵ Winks describes the NP as "something of a reflection of its president [Frederick Billings]. Then and later, it was a no-nonsense line: it had no nickname ... it appears to have evoked no ballads or folk songs; it created no heroic legends. To Billings, the railroad meant energy, new horizons, power, the pressure to perform, the sense of time and orderly movement a railway schedule brought."⁴⁶ While the railroad caused environmental devastation, Billings engaged in ameliorating those effects. Thus was established the overarching dichotomy of Billings' life: he would facilitate destruction of virgin land while at the same time undertaking conservation measures. The "Bonanza Farms" of the Great Plains were one such enterprise in which Billings was active. The railroad made vast amounts of land, known as "Bonanza Farms," available to farmers, who would then use the railroad to ship their crops to market. Billings also encouraged tree planting in the Great Plains, promoted national parks like Yellowstone, and supported the Timber Culture Act of 1873.⁴⁷ Billings' conservationist tendencies were equally motivated by concern for the environment and interest in developing commerce, which he believed could be unified.⁴⁸ The railroad, for example, could take people to the landscape, resulting in greater appreciation of the natural environment. In June 1881, Frederick was forced out of the presidency of the NP by a corporate rival, Henry Villard. Although he remained active in the NP's senior management, Billings turned his

⁴² Winks, p. 161.

⁴³ Winks, p. 180.

⁴⁴ Winks, p. 187.

⁴⁵ Winks, p. 187.

⁴⁶ Winks, p. 224.

⁴⁷ See Madison, *Landscapes of Stewardship*.

⁴⁸ Winks, p. 283.

attention to his Woodstock home.

There are several possible explanations for Billings' purchase of the Marsh property from Charles Marsh Jr. in 1869. One influence often cited is George Perkins Marsh's *Man and Nature*, which inspired Billings to purchase his hero's childhood home. Historian Daniel Nadenicek disagrees with this interpretation, citing a lack of evidence.⁴⁹ Billings may have seen his purchase of the Marsh property as a "permanent return from the West to his spiritual home" of Woodstock where his parents, siblings and schoolmates still made their homes, and where he could "transform 'The Hill'...into a fashionable country place that served as the family home, a retreat from business affairs in New York City, and a place to manifest ideals about the land."⁵⁰ Billings took the opportunity to manifest George Perkins Marsh's brand of conservation in a public way, creating a model agricultural farm and engaging in reforestation, setting examples for local farmers while also profiting from an efficient estate that utilized conservation practices. This satisfied Billings' conservationist impulses, as well as his capitalist ones, as he struggled between a "belief in the innate goodness of mankind, which would...use God's handiwork well" and "a premonition that nothing could stop the engine of progress."⁵¹

The purchase of a country estate by a wealthy, self-made businessman was a common phenomenon in the nineteenth century. Men like Billings purchased farms and estates in the country, where they and their families could spend part of the year, as described in Andrew Jackson Downing's *Country Residences*, and escape the known and suspected hazards of industrialization and the urban environment.⁵² The "Country Place Era," as it is called, dated from circa 1870 to 1930, and found expression both in architecture, which reflected an increasing interest in the organic and natural, and landscape design, which created a "pastoral," "romantic," and "naturalistic" setting.⁵³ Nature was seen as part of the country's national character, as it "embodied a sense of identity that was, in theory at least, democratic (that is, non-class specific), morally and culturally redemptive."⁵⁴ The perceived moral influence of nature can also be seen in the era's interest in landscape painting. According to historian Angela Miller, landscape art "was motivated by a complex set of associations identifying images of nature with virtue, purity and uncomplicated harmony, as well as with national unity, pride of place, and a unique identity distinct from that of Europe."⁵⁵ The most representative landscape depicted a balance between wilderness and land that had been handled by man. Billings' creation of a country estate that would be open to the public exemplifies Americans' increasing

⁴⁹ Daniel Nadenicek, *Frederick Billings: The Intellectual and Practical Influences of Forest Planting, 1823-1890*. Draft, October 8, 2003, p. 76, available at MABI.

⁵⁰ Auwaerter, Vol. 1, p. 61.

⁵¹ Winks, 292.

⁵² Hans Huth, *Nature and the American: Three Centuries of Changing Attitudes* (Berkeley and Los Angeles: University of California Press, 1957).

⁵³ Auwaerter, Vol. 1, p. 67, 68.

⁵⁴ Angela Miller, *The Empire of the Eye: Landscape Representation and American Cultural Politics 1827-1875* (Ithaca: Cornell University Press, 1993), p. 16.

⁵⁵ Miller, p. 12.

appreciation of landscape.

In order to guide the development of the Mansion and its grounds, Billings had Robert Morris Copeland (1830-1874) design a plan for the landscape in 1869. That plan “covered about 50 acres of ground extending from Elm Street...west across the hill at the foot of Mount Tom to the rear of the house.”⁵⁶ By 1869 Copeland had a well-established practice in Boston, and had designed hundreds of landscapes, ranging from estates to cemeteries. He was well known for his 1859 book *Country Life: A Handbook of Agriculture, Horticulture and Landscape Gardening*, which detailed the development of each component of a hypothetical 60 acre estate, 20 acres of which would be used for farming. The components of this model estate included: flower and kitchen gardens, orchards, barns, stables, greenhouse, grapehouse, hot beds, nurseries, house, lawn, woods, ponds, and roads. Billings had most of those elements on his property. Copeland asserted that the development of country estates was important to restoring the rural landscape: “Every year we see men of wealth leaving the cities in summer to buy houses in the country: however wrapt in money making, they are not insensible to rural beauty. Country towns properly improved will become exceedingly attractive, their lands and byways through woods and along water courses will make drives of uncommon beauty.”⁵⁷

The quest to create a beautiful rural landscape informed Copeland’s plan for Billings. Copeland created an “overall naturalistic landscape in keeping with the prevalent style of mid-19th century landscape gardening” that maintained natural features and emphasized a “flowing and irregular spatial organization” rather than a rigidly geometric and formal one.⁵⁸ This can be seen in the layout of the drives. The Copeland redesign of the original Marsh entrance lanes “transformed the basic character of the area around the Billings Mansion from that of a simple New England farmhouse yard and partitioned outlying fields, to that of a stylish country seat laid out in the English landscape gardening tradition.”⁵⁹ The south lane and service area created by Marsh were eliminated, while the north lane became the formal introduction to the house, passing under the porte-cochere and looping back to the drive. The current main entrance drive layout has not drastically changed since its initial construction in 1870. The width of the roads conformed to Copeland’s recommendation that “if the place is large enough, I should always make this path at least 12 feet wide, and 15 is better, to allow the passage of a large carriage.” The roads do not circulate in rigid patterns or straight lines, but move according to the topography of the land. As Copeland specified in *Country Life*, “a road or path [should be laid out], which may carry one naturally and easily about the whole place in such a way as to display its beauty and open that of the surrounding country.” Copeland also had specific suggestions

⁵⁶ Auwaerter, Vol. 1, pp. 78-79.

⁵⁷ Robert Morris Copeland, *Country Life: A Handbook of Agriculture, Horticulture and Landscape Gardening* (NY: Orange Judd and Co., 1867), p. 774.

⁵⁸ Auwaerter, Vol. 1, pp. 78-79. For biographical information on Robert Morris Copeland, see Charles A. Birnbaum and Robin Karson, eds, *Pioneers of American Landscape Design* (New York: McGraw-Hill, 2000), pp. 68-69.

⁵⁹ Foulds, p. 38.

about the design of a road: “*Never curve or distort it merely to gain length, never curve it where it would be better straight, and never make it straight where a curve would have more beauty, or would display the surface to better advantage.*”⁶⁰

To connect the service areas in Copeland’s plan, a drive “branched off Elm Street at the north end of the Mansion grounds and led to the Stable and Coachman’s Cottage,” which is roughly in the location of the current Secondary Entrance Drive. At the west end of the teardrop shaped loop was a “complex arrangement of drives and circles leading to the proposed service buildings and greenhouses” located behind the Belvedere.⁶¹ A comparison of the Copeland plan of the drives and surveys of the property by Hosea Doton from 1887 to 1888 reveal that the plan and the execution were very similar.

The first of many building projects Billings undertook on the Marsh property was the renovation and enlargement of the house. On June 3, 1869, the *Vermont Standard* reported, “little else than the bare walls remains of the old Charles Marsh Mansion. Mr. Billings has a large force of men transforming the place into something to his taste.”⁶² By June 30, 1870, the Mansion renovations had been completed. (A second complete renovation and enlargement of the Mansion would follow in 1885-86.) Billings also engaged in other improvement projects, including modernizing and enlarging the water and sewer service, introducing gas lines, constructing service buildings, hothouses, and landscaping the Mansion grounds.

Despite the fact that he was increasingly involved with the management of the Northern Pacific Railroad at this time, and living in New York City, Billings remained involved in all aspects of the improvements on the estate, which centered on three areas: the Mansion and the surrounding landscape, the farm on the intervale, and the Mount Tom hillsides. The property ultimately came to represent Billings’ aspirations, as well as the social and cultural ideas of his day. Billings was part of a progressive movement to educate farmers on scientific agriculture and effective farm management. As Daniel Nadenicek notes, it was not uncommon that “individuals who contributed experiments and ideas” to the conservation movement “were simultaneously despoilers and champions of the environment.”⁶³ Driving this movement was the idea that improvements in one’s environment corresponded with moral and personal improvements.⁶⁴

In July 1870, Billings embarked on what he came to consider one of his greatest achievements: construction of the carriage road network. The first phase of road construction lasted from 1869 to 1884 and included the “avenues,” “old” mountain road, “new” mountain

⁶⁰ Copeland, 647, italics in original text.

⁶¹ Auwaerter, Vol. 1, p. 80.

⁶² *Vermont Standard*, June 3, 1869, available at the Woodstock Historical Society, Woodstock, Vermont [hereafter WHS].

⁶³ Nadenicek, p. 76.

⁶⁴ Nadenicek, pp. 59-60.

road, and possibly part of the Summit Road. There were some roads existing on the Marsh property at the time of Billings' purchase, as the Doton surveys from the 1880s indicate. These utilitarian roads would have facilitated land management and farming. The old mountain road extended behind the Mansion where the laundry stood, past the hothouses, and up the slope to the garden, where it bisected the garden and eventually joined the new mountain road. The section of new mountain road extended from what is now the Secondary Entrance Drive and eventually intersected with the old road. The "new" and "old" mountain roads generally correspond with the Lower and Upper Pogue Carriage Roads. Construction details are few, but it is clear that unlike the more formal drives near the Mansion, these mountain roads were not surfaced and did not have gutters.⁶⁵ By the end of 1884, a substantial network of roads was in place, but the west portion of the property still lacked access.

The road construction chronology is somewhat problematic, particularly in regard to what would be known as the Summit Road on Mount Tom. Billings at first only owned the north and east portions of Mount Tom, and construction of a road on these portions would have been difficult due to the steep topography.⁶⁶ Surviving evidence consisting of undated sketches indicates the presence of a road from the west that reached Mount Tom's peak, but it is unclear whether these plans were ever executed. The *Land Use History* argues that while newspapers reported a carriage road extending to the north peak, there is no physical evidence that it actually existed. One such confusing report from November 27, 1887 reported that "Hon. Frederick Billings has been engaged this fall in opening a drive to the north summit of Mt. Tom, and since his purchase of the Dana farm is extending the carriage way to that place and thus completely encircles the mountain. It will be a charming drive and a great addition to his place, making it, in its entirety, something that cannot be excelled in the country."⁶⁷ While it may have been Billings' intention to have a north peak road, in reality, the Summit Road, completed in 1887, was constructed skirting the north peak and ascending the south peak of Mount Tom.⁶⁸

The second phase of work, made possible by Billings' continued acquisition of property, lasted from 1884 to 1895. This phase of construction encompassed the south section of the Summit Road, North Ridge Road, Pogue Loop, North Ridge Extension, Myers Road, Maple Grove Loop, and McKenzie Road. A road was planned to encircle the base of Mount Tom, but was never built.⁶⁹ On October 25, 1884, Billings purchased 227 acres at the west end of the property from Henry S. Dana, which included the Pogue. This purchase "allowed Billings to build carriage roads connecting to the road at Hilltop (Dana) farm, and then a branch of this road to the summit of Mount Tom, approaching from the gentler western slope."⁷⁰ (This branch would become the Summit Road.) The 1885 entries from the *Billings Farm Memo Diary* state

⁶⁵ Auwaerter, Vol. 1, pp. 88-89.

⁶⁶ Wilcke, et al, p. 58.

⁶⁷ *The Vermont Standard*, November 27, 1884.

⁶⁸ Foulds, p. 60-62.

⁶⁹ Information from Katie Wollan, summer field team historian, summer 2001.

⁷⁰ Wilcke, et al, p. 59; Summit Drive opening from *Vermont Standard*, November 27, 1884, WHS.

that men and teams were “working roads on Hill Top Farm,” which was located at the southeastern corner of the parcel acquired from Dana. The workers were also installing culverts and “drawing gravel.” In 1886, entries indicate that in addition to continuing work on Hill Top, roads were being constructed in the woods.⁷¹ In December 1886, the *Vermont Standard* summarized the work occurring on the property:

During the past year, Hon. Frederick Billings has kept a large force of mechanics and laborers constantly employed in rebuilding his mansion, in erecting a cottage on his Dana farm and near Pogue Hole, and in opening drives in the old forest that extends from the street for about a mile westerly to the limits of his possessions, the whole making a vast improvement, and one which in some respects the public can enjoy equally with himself.... The new road together with the old give Mr. Billings about five miles in length on his own grounds. They are broad, smooth, gravelled, and winding about as they do in the old forest are romantic in the extreme. Still further extensions are in contemplation for next year, including a drive to the summit of Mt. Tom. When these are completed the place will be to Woodstock what Central Park is to New York, or Mount Royal to Montreal; for Mr. Billings has always kept the gates open for the public to enjoy with him these beautiful drives.⁷²

The following year Billings was still in the midst of having the road to Mount Tom’s summit constructed. In August 1887, the *Vermont Standard* reported, “Mr. Billings starts a large force of men and teams on Monday next to build his long projected carriage drive to the southerly summit of Mt. Tom. This will be the climax to his magnificent place.” According to the *Billings Farm Memo Diary* Billings had forty men and nine teams working on the Summit Road. While the road was completed in 1887, it was not opened to use until 1888. It was “in fine condition for driving” due to “Mr. Billings’ teams” who hauled gravel to spread along the roadbed.⁷³

Despite Billings’ poor health in 1890, he authorized the construction of new roads. One planned road ran from the greenhouse “through the Myers pasture along and over the hillside so as to turn down and intersect River Street just above James Haggerty’s house, which was adjacent to the cemetery.”⁷⁴ On May 15, the *Vermont Standard* reported that this road would “continue in a southerly direction, along the side of the mountain, behind the Woodward Mansion and so on round the mountain, till it comes out at the Dana farm.” This would complete a road “entirely round Mount Tom on Mr. Billings’s own lands, and will provide for a

⁷¹ Selectman and road machines noted in June 22, 1881 and July 13, 1881 editions of *Vermont Standard*, WHS; entries from *Billings Farm Memo Diary, August 1870-October 1944*, available at MABI.

⁷² *Vermont Standard*, December 23, 1886, WHS.

⁷³ *Vermont Standard*, August 4, 1887, September 1, 1887, January 12, 1888, WHS; *Billings Farm Memo Diary*, entries for 1886, available at MABI.

⁷⁴ *Vermont Standard*, May 1, 1890, WHS.

summer's afternoon just the most splendid driveway in the world."⁷⁵ Two other major road projects were also undertaken.

Mr. Billings, though so seriously ill as to be confined to his bed almost all the time, has planned two new roads on his estate. One will pass around Pogue Hole, the waters of which he hopes to raise two or three feet by a concrete dam at its outlet. This work is already under way. The other is an extension of the North Ridge road east through the woods and the east end of the Ridge, where there is a beautiful grove of maple trees, a fine spring of water and a most picturesque view. From this point the road will be brought down to join the present road a little above the lily-pond.⁷⁶

In August 1890, road work began around the Pogue and continued through November of that year. Billings' beautification efforts in this part of the estate centered on the Pogue, originally a bog on the Dana farm. It lay "in a deep basin at the foot of George Thomas Hill," and was a "natural pond (enlarged, probably by a beaver dam), covering twelve or fifteen acres, and containing an immense deposit of marl and muck."⁷⁷ A dam was built "at the outlet of what was then called 'Pogue Hole' to the Pogue brook, which runs northeast to its confluence with Barnard Brook," creating the larger body of water that now exists. As with other elements of the Billings' designed landscape, the Pogue served a practical purpose as well as a picturesque one. Not only did the Pogue provide water to the estate through a system of pipes established at the beginning of the twentieth century, but also ice cutting on the Pogue provided essential cold storage for the household. To keep the water clean for consumption, the Pogue was regularly cleared of sediment deposits.⁷⁸ By November, the North Ridge Road had been completed, as well as the Hill Top pasture road and culverts. The North Ridge Road, it was reported, provided vistas of the "Gulf road to Barnard, English Mills, Pomfret meeting house and other points."

Even after Frederick Billings' death in 1890, road construction went forward to complete the planned roads. In December 1891, work was completed on the extension of the North Ridge Road after crews worked on it the majority of the year.⁷⁹ The completion of the carriage road network as envisioned by Billings fulfilled his pronouncement that it was "one of his greatest accomplishments."⁸⁰ A description from 1902 reveals the comprehensiveness of the system as well as how it complemented the renewed Vermont landscape.

Among the changes which have been made in the immediate vicinity of Woodstock Village, the greatest are those which have been wrought by Mr.

⁷⁵ *Vermont Standard*, May 15, 1890, WHS.

⁷⁶ *Vermont Standard*, August 14, 1890, WHS.

⁷⁷ Dana, *History*, p. 552.

⁷⁸ For more information on the Pogue, see Wilecke, et al, p. 55-56.

⁷⁹ *Billings Farm Memo Diary*, entries for 1891, available at MABI.

⁸⁰ Nadenicek, p. 58.

Frederick Billings on the old Marsh homestead. The original farm of two hundred and fifty acres has been enlarged by additions from time to time till the estate now contains about fifteen hundred acres. In this estate is included the whole of Mount Tom, which rises abruptly just west of the village, and from whose top one looks down six hundred feet directly into the village streets. Leading to the key summit of this mountain, through gorges and deeply shaded groves, wind fifteen miles of smooth well-kept carriage roads. Through the kindness of Mr. Billings, these magnificent drives are open to the public at all times except Sundays.⁸¹

While laudatory descriptions of the carriage roads abound, little documentary evidence exists that describes in detail their construction. Observation suggests that the roads did not require any complicated engineering. As the *Cultural Landscape Report for the Forest at Marsh-Billings-Rockefeller National Historical Park*, “Site History and Existing Conditions” describes, “it appears that the roadbeds were leveled as much as possible and reinforced with stone retaining walls. Stone culverts were constructed to channel water beneath the roads. The surfaces of the roads were ultimately covered with gravel.”⁸² These features are all readily apparent even today. At the Pogue stream, for example, the water runs through channels and culverts faced in fieldstone near the junction of the Upper and Lower Pogue Carriage Roads.

The Spirit of the Age, a local newspaper, reported in 1882 on road machinery in use on town roads. On June 22, for example, it noted that “selectmen of this town have received for trial several road machines of different patterns.” On July 13, the selectmen had evidently chosen two machines for use. The machines, it was stated, would “work a complete revolution in road making.” They were made in Abington, Connecticut. The larger “Champion” was for use “on the more important or river roads” while the lighter “Benefactor” worked on “the hill roads.”⁸³ There is also documentary evidence that a “road machine” was utilized on the Billings Estate from 1892 to 1895. A receipt shows that the machine was purchased on November 5, 1891 and that the Billings Farm paid the town of Woodstock \$25.00. George Aitken, the farm manager, reportedly wrote to Laura Billings about his plans to use the machine.⁸⁴

Aitken’s interest in road construction is exemplified in a letter written to “Miss Billings” on March 27, 1893 asking her to “take particular note of the public roads” while visiting France. He went on to tell her that French roads “are claimed to be among [sic] the best in the world, I think they are built on a combination of the MacAdam and Telford plan, but it is the formation and not the composition of the French roads that I would like to know something about - how they are built in reference to getting rid of the surface water especially those that are built in a

⁸¹ “In and About Woodstock Vermont with Pen and Camera,” Woodstock, VT, 1902, pp. 5-6.

⁸² Wilcke, et al, p. 60.

⁸³ *Spirit of the Age*, June 22, 1882 and July 13, 1882, WHS.

⁸⁴ Wilcke, et al, p. 60. For receipt, see Billings Farm, 1887-99, Equipment and Machine Receipts (partial), photocopy from Billings Farm & Museum Library & Archives [hereafter BF&M].

hilly country.” He went on to assure her that “of course I do not expect you to turn yourself into a committee of one to investigate the roads for my benefit but I have often wished to see them and I know that if you pay any attention to them at all you will be able to give me a much better idea of what they are like than I can get in any other way.”⁸⁵ While it is unknown how much foreign and alternate road construction techniques were employed on the estate, Aitken’s inquiries show an awareness and interest in various road types and construction methods.

Once constructed, the roads provided both the Billings family and the public with opportunities to enjoy the beauty of the local landscape. The beauty of the estate and Billings’ munificence were lauded in the local press:

Probably nowhere in the country has private enterprise accomplished anything like these mountain drives, which are not exceeded in extent or picturesqueness by the public drives of Mt. Royal at Montreal. Mr. Billings is pleased to know that his efforts and expenditures in improving and adding to the attractions of Woodstock afford pleasure to the citizens of the valley, and this fact greatly heightens the public enjoyment of the mountain drives.⁸⁶

The drives were obviously a source of pride for the community as evidenced in reports in the *Vermont Standard*:

Woodstock’s great attraction, the Mt. Tom drives, is happily described by the editor of the *Bellow Falls Times*, who was here a few days ago. When the work on the mountain is completed it will be a still more striking ornament to the loveliest town in New England. Mr. Billings has in mind certain extensions of drives and walks that will make of the whole a perfect public park.⁸⁷

A *Vermont Standard* article dated September 11, 1890 described the experience of traveling along the road:

Whoever wishes to take a short and agreeable walk near the village should try Mr. Billings’s new road laid out over the easterly side of Mount Tom. Turning in at Mr. Hagerty’s on River street he will find the ascent up the mountain made smooth and easy by a broad, well-built, gracefully winding highway. At every turn in the ascent a new and beautiful view of the village opens up before him. Round about at no great distance from the path is an occasional oak tree with wide spreading branches, in the shade of which, if the day is pleasant, as were some of the days last week, he can sit and read or meditate, according to his

⁸⁵ George Aitken to Miss Billings, Woodstock, Vermont, March 27, 1893. From Aitken letters, BF&M, photocopies available at MABI.

⁸⁶ *Vermont Standard*, August 2, 1888, WHS.

⁸⁷ *Vermont Standard*, June 21, 1888, WHS.

fancy. The road leads over the hill into Mr. Billings's garden, which at this season of the year is rendered quite attractive by large beds of flowering plants in full bloom, such as the aster, phlox, lily, and others. A slight effort of the imagination suffices to make this garden appear a bit of fairy land to one who recollects back fifty years or more, when it was largely a bog given up to alders and coarse grass.⁸⁸

The entire road network was open to the public throughout Frederick Billings' period of ownership, as a way to fulfill his mission of providing a model of scientific agriculture and forestry to the public, and was widely used by locals and visitors who together formed a "constant throng."⁸⁹ For example, guests of Woodstock resident Payson A. Pierce, from Salem, Massachusetts, were taken to the estate to drive along the carriage roads for amusement.⁹⁰ At times the crowds of visitors could cause problems, as seen in a warning issued in the *Vermont Standard*:

We beg to volunteer a word of good counsel and warning to the people of this and surrounding towns who in summer enjoy their picnics on Mt. Tom. It has been noticed that the refuse of these occasions is thrown upon the ground about the summit, thereby disfiguring the landscape and creating a nuisance. This is done thoughtlessly, of course, but it must be none the less offensive to the generous gentleman who has put within reach of all the unlimited enjoyment of the woods and mountains upon his estate. All should remember that the privilege is to be enjoyed not abused, otherwise there might come a time when the gates would be closed, and that would be a calamity indeed.⁹¹

Billings hoped to extend his mission of conservation through example beyond the village of Woodstock. One way to do this was by contributing funds toward the creation of the Woodstock Railroad. Completed in 1875, the Woodstock Railroad was a short line running from Woodstock to White River Junction, where it connected to other railroads serving Boston and New York. The railroad "played a role in spreading the gospel of conservation through the growth of local tourism" in both summer and winter. This was part of a larger trend in the nineteenth century of travel to areas of natural beauty. Nostalgia for America's past and the frontier was intensified by the depletion of the wilderness. Traveling to rural areas where there were vestiges of wilderness, or echoes of childhood homes, conjured up an "imaginary past."⁹² Conservation could thus be combined with tourism, an appropriate use of wilderness in the

⁸⁸ *Vermont Standard*, September 11, 1890, WHS.

⁸⁹ Article from *Hartland Cor. Windsor Journal* and reprinted in *Vermont Standard*, September 6, 1888, WHS.

⁹⁰ *Vermont Standard*, October 10, 1889, WHS.

⁹¹ *Vermont Standard*, November 21, 1889, WHS.

⁹² Dona Brown, ed., *A Tourist's New England: Travel Fiction, 1820-1920* (Hanover, NH: University Press of New England, 1999), pp. 13, 15.

minds of entrepreneurs like Billings. Woodstock was an accessible rail destination, and the Billings estate was a local landmark, open to public recreation. Visitors used the carriage drives as hiking and snowshoeing trails.⁹³ There was also “sleigh riding and skating on Pogue Hole at the top of Mt. Tom helping to relieve the hard winters.”⁹⁴ The Rockefeller family, with great success, would later expand these recreational amenities.

The road network served practical purposes beyond providing a playground for tourists. It was vital for farming and forestry activities since it provided access to remote areas of the estate and allowed for the easy movement of heavy goods like lumber. In the winter, for example, the carriage roads were used to remove cut wood from the estate.⁹⁵ Nadenicek states that the roads “were constructed for utilitarian purposes (providing access to timber stands and perhaps as fire breaks)” while also giving “direct access and views to natural scenes both on and beyond the site.”⁹⁶ This graphically illustrates Billings’ realization that conservation could include both the practical and the picturesque.

The result of Billings’ improvements was a comprehensively planned but natural estate whose Romantic appearance belied the scientific practices that had produced it. For example, Billings used Norway spruce on the slope behind the Belvedere to control erosion, but in order to promote a picturesque venue the trees were planted in naturalistic rather than regimented rows. Furthermore, the Norway spruce itself was “aesthetically pleasing; the pendulous growth created a striking image in silhouette and conjured evocative images of interest to the artistically inclined in Victorian America.”⁹⁷ Eventually, 20,000 seedlings of various species were planted on the estate, including white pine, Norway spruce, European larch and white ash.⁹⁸ The results of reforestation were extolled in the *Vermont Standard* in 1891:

In the bright and pleasant sunlight of last Friday the venerable Mount Tom put on his gayest robe. He never looked better, never put on such a rich variety of coloring. No mountain is to be found about here or any where else that puts on a dress of autumnal tints equal to Mt. Tom. The hills and mountains everywhere else in Vermont, without much exception, have been largely stripped of their forests. Mount Tom is clothed to the top with a thick growth of trees which is growing denser every year. Ninety years ago it was burned, and in 1845 came near being burned over once more. May the fire never invade it again nor the axe

⁹³ Madison, p. 60.

⁹⁴ Peter S. Jennison, *The History of Woodstock, Vermont, 1890-1983* (Woodstock, VT: The Countryman Press, 1985), 10.

⁹⁵ Madison, p. 44.

⁹⁶ Nadenicek, p. 58.

⁹⁷ Nadenicek, p. 4.

⁹⁸ Winks, p. 298. The reforestation efforts of Billings are beyond the scope of this project. For more information, see Nadenicek.

be suffered ever to strip it of a single green bough.⁹⁹

As *Landscapes of Stewardship* points out, “scientific farming in late nineteenth-century New England often involved the uneasy juxtaposition of Victorian virtues with new advances in the agricultural sciences.”¹⁰⁰ It would be a mistake to think that Billings was the only New Englander engaging in landscape management. There were many other gentleman farmers like Billings, such as William Seward Webb, another railroad tycoon who developed a showplace farm and country estate near Burlington, Vermont. Agricultural societies like the Windsor County Agricultural Society, which held fairs on a meadow formerly owned by Charles Marsh near the intervalle, also became common, as did schools like the Vermont Agricultural College, founded in 1864.¹⁰¹

George Aitken, Farm Manager

While Fredrick Billings maintained an active role in managing the estate, he employed a succession of farm managers for daily operations. George Aitken (1852-1910), manager from 1884 to 1910, was undoubtedly the most influential. He was hired for his expertise in livestock, but his influence on the property was immeasurable, as his “technical, experimental and outreach work was to transform the farm from one man’s vision to a locally important resource for the latest in good farming and forestry practices.”¹⁰² His greatest contribution was that he “gradually transformed” the estate from “a rich industrialist’s showplace to a working experimental farm B a private experiment station for the surrounding community.”¹⁰³ His accomplishments included expanding the farm’s field agriculture as well as the livestock program, reforesting the property, and promoting forestry through his involvement in various state and regional organizations. Aitken expanded the farm’s activities in various ways. On the 40-acre Big Meadow in the intervalle, corn and oats were grown, while in the greenhouses Aitken worked with the Head Gardener planting bananas and peaches. A new grapery was established. Aitken introduced new breeds of livestock, notably Berkshire hogs and Southdown sheep imported directly from England. He also established a prize-winning herd of Jersey cattle. The herd became well known as a distinguished bloodline, and six Billings Farm Jerseys won awards at the Columbian Exposition (1893-1894) in Chicago.¹⁰⁴ During Aitken’s tenure, Billings allowed breeding of his cattle with neighbors’ livestock in order to improve local bloodlines.¹⁰⁵

Aitken’s forest work involved developing many new tree plantations after 1890, thinning

⁹⁹ *Vermont Standard*, October 15, 1891, WHS.

¹⁰⁰ Madison, p. 27.

¹⁰¹ Madison, pp. 27-28. For more information on William Seward Webb, see pp. 29-30.

¹⁰² Madison, p. 51.

¹⁰³ Madison, p. 54.

¹⁰⁴ Jennison, pp. 24-25.

¹⁰⁵ Madison, p. 35.

out the dead and diseased trees and using the resulting lumber for the estate and also for sale to town residents. Work on the farm was constant and various, and included sugaring, planting, haying, harvesting, chopping wood, clearing snow, reforestation, clearing river debris yearly from the intervale, removing muck from the Pogue (which was then used as fertilizer), and hauling logs and stone.¹⁰⁶ The crop diversification reflected a statewide movement to increase crops and the variety of functions on the farm, also reflected in the shift to dairy cattle from sheep and the increase in maple sugaring activities. After George Aitken died, his cousin James Aitken took over as farm manager from 1910 to 1914. John and Newell Wickham succeeded James Aitken in 1914, and three years later Arthur Snyder began his long tenure as manager, working on the property from 1917 to 1933.

The Billings Women: Maintaining the Conservation Legacy

Frederick Billings' efforts to beautify his home and the community of Woodstock did not go unnoticed. His obituary stated:

And so were laid to their final rest the mortal remains of one of Vermont's most distinguished and loyal sons, amid surroundings that his own generous and loving hands have made attractive and memorable. The sons and daughters of Woodstock who enjoy what he has fully provided, in itself the noblest of monuments, will keep his memory green for the generations to come.¹⁰⁷

His widow Julia and their three daughters -- Laura, Mary Montagu, and Elizabeth -- would continue Billings' work, ensuring that the property would remain "green for the generations to come." They managed the estate until 1914 with George Aitken continuing as farm manager until 1910.¹⁰⁸ The Billings family kept the grounds as Frederick had hoped: "as a model of rural improvement, to continue conservation practices that would perpetuate his vision of stewardship."¹⁰⁹ They did not maintain the estate as a static landscape, however, but "would update the Mansion grounds according to the most progressive trends in landscape design" while at the same time ensuring that the "overall character of the landscape" was kept, including some outdated features that probably reflected their interest in "perpetuating Frederick's memory."¹¹⁰ Seasonal farm activity continued, with summer crops, the fall harvest, forestry in winter and early spring, spring sugaring, and tree planting in April and May.

The Billings women's active role in maintaining the landscape reflects the increasing role

¹⁰⁶ Jennison, pp. 24-25.

¹⁰⁷ Billings obituary, *Vermont Standard*, October 9, 1890, WHS.

¹⁰⁸ Management was shared between Julia, Mary Montagu and Elizabeth after 1901, since Laura's involvement ceased after her marriage to Frederic Schiller Lee in that year.

¹⁰⁹ Auwaerter, Vol. 1, p. 133.

¹¹⁰ Auwaerter, Vol. 1, p. 149.

of women in gardening and landscape architecture at the turn of the twentieth century.¹¹¹ Their landscaping activities focused primarily on the Mansion grounds, with Elizabeth and Laura taking the most interest. Elizabeth's contributions included laying out hillside paths on the slope behind the Mansion, where she planted gardens of rare ferns and mushrooms. This reflected her lifelong interest in the landscape and the natural world. She began taking botany classes in 1894 at Barnard College, was a member of the Vermont Botanical and Bird Clubs and the Hartland Nature Club, initiated reforestation of 20 acres of Mount Peg, and was a life-long member of the American Forestry Association.¹¹² Assisted by Elsie Kittredge of the New York Botanical Garden, Elizabeth collected and dried botanical specimens, many of which were supplemented with watercolor detail drawings and hand-colored photographs.¹¹³ The improvements by the Billings women, however, did not alter the overall character of the established landscape, and "in subsequent decades, the landscape would no longer witness such stylish improvements. The family's continued commitment to stewardship of the land would, however, remain a persistent force in the landscape and a major reason for its preservation."¹¹⁴

In 1914 Julia Parmly Billings died, and ownership and management of the Mansion grounds and Mount Tom passed to Elizabeth Billings and Mary Montagu Billings French. Due to "financial constraints, the family's changing needs and preferences, decline of country place society, and the larger ramifications of world wars and economic depression," the focus of the new era was necessarily on maintenance and not improvement, which in the long run proved beneficial to maintaining Frederick Billings' conception of the landscape. Elizabeth died in 1944, but Mary Montagu's extended family continued to use the estate. The family may have found its rusticity appealing in "an era when Modernism--with its clean lines, efficiency and technology--was gaining a stronghold in American society, the Mansion grounds provided an escape."¹¹⁵

There were alterations to the roads and drives during Mary Montagu's ownership. The main changes were to the Mansion drives and seem to have been born of necessity. Mary Montagu purchased an automobile -- a two-passenger electric Knox Car -- in 1901. By 1902 the decision had been made to update the Mansion drives, "perhaps in part to reflect the new use of the automobile, but probably more to provide a stylistically up-to-date approach to the Mansion, in keeping...with other recent improvements."¹¹⁶ Mary Montagu hired Martha Brookes (Brown) Hutcheson (1871-1959) to design the new drive, the plan for which would be one of Hutcheson's earliest projects. Hutcheson was a pioneering woman in the field of landscape architecture. She

¹¹¹ See Auwaerter, Vol. 1, Chapter 4 for more information on women and gardening and landscape architecture.

¹¹² See Auwaerter, Vol. 1, pp. 180-186 for more information on Elizabeth.

¹¹³ Sarah B. Laughlin & Nancy L. Martin, "Preserving Vermont: The Billings Kittredge Herbarium," *Woodstock Common* (Summer 1985), 14.

¹¹⁴ Auwaerter, Vol. 1, p. 186.

¹¹⁵ Auwaerter, Vol. 1, p. 214.

¹¹⁶ Auwaerter, Vol. 1, p. 168.

was one of the first women enrolled in the Massachusetts Institute of Technology's landscape architecture program. She began her practice in Boston in 1902 and worked mostly on residential projects before moving to New York in 1906. Her work was strongly influenced by her European travels, especially in Italy. Hutcheson's work exemplifies the Country Place era, which was a reversion to symmetrical and formal landscape design, with Beaux Arts influences.¹¹⁷ Her ideas that the house and surrounding gardens should have "organic unity" and that the "space in the immediate area of the house should be organized formally" are reflected in her additions to the Billings Mansion landscape.¹¹⁸ She replaced Copeland's teardrop-shaped loop under the porte-cochere with a more formal circle. She also simplified the system of drives at the rear of the Mansion.¹¹⁹ The rest of the drives were unchanged, although maintenance continued.

In August 1895, workers began constructing the final road on the property. Built on land to the west of the estate purchased from the McKenzie farm on January 4, 1894, the road extended "in an easterly direction toward North Ridge Road and the Pogue."¹²⁰ Work continued through December, when it seems to have been completed, although there is a later entry in the *Billings Farm Memo Diary* for August 1900 stating "building roads to Joseph McKenzie's farm through the woods."¹²¹ Later work on the road network was purely maintenance. In the early twentieth century, from 1901 to 1920, the *Billings Farm Memo Diary* contains entries indicating that road work primarily consisted of graveling, grading, and making repairs. Records also reveal that roads were "being raked fairly regularly" in order to "level the gravel surface and to clear the road of leaves and other debris."¹²² Trees also had to be regularly trimmed. In the winter months, such as in January 1910, the *Diary* noted that workers were "breaking out the winter roads." While in February 1920 it "snowed every week," workers still kept the roads passable so that there was "good sleighing all month." The other engineered features of the landscape, like the culverts, were kept up as well. In addition to regular maintenance, there were occasional emergency repairs. On December 30, 1895, for example, Aitken wrote to Laura Billings:

We had the heaviest rain storm of the season the night of the 22nd, and the frost being nearly all out of the ground left the roads in bad condition to withstand heavy rain, so that in some places, notably those points on the road that were defective, the water washed them out worse than I have ever known it do, we have been very busy ever since repairing the damage and getting all the roads in shape so they will be able to withstand any weather we may have before spring,

¹¹⁷ Foulds, p. 56; for more on the High Country Place Era, see Auwaerter, Vol. 1, pp. 135-145.

¹¹⁸ See Charles A. Birnbaum and Robin Karson, eds., *Pioneers of American Landscape Design* (New York: McGraw-Hill, 2000), pp. 188-192.

¹¹⁹ For more information on Brown's landscape additions, see Auwaerter, Vol. 1, pp. 170-171.

¹²⁰ Wilcke, et al, p. 103.

¹²¹ *Billings Farm Memo Diary*, available at MABI.

¹²² Wilcke, et al., p. 78.

when we get finished I think they will be better than they have ever been.

On Saturday we started all the teams to draw gravel from the pile at the Mill, and are putting it on roads where they needed it most....¹²³

The continued maintenance of the road network reveals that despite the division of the property into separate portions for individual family members after 1914, the estate still continued to function as a whole. Despite the heirs' best efforts, however, the estate was in decline, mirroring a similar decline in Vermont's agricultural fortunes. After the sisters purchased the farm portion back from their brother Richard to "avoid development of the property that might impact the setting of their father's estate" and because the farm was losing money, they gave up all "grand visions for the farm," and instead focused on keeping it and the estate running.¹²⁴ Their solution to combat the agricultural decline was to abandon diversity and convert the farm to a dairy. After Mary Montagu's death in 1951, the property was divided between her descendants: Mary French, John French Jr., and Elizabeth French Hitchcock.

The Rockefellers: Continuing the Tradition of Conservation

Mary French married Laurance Spelman Rockefeller in August 1934 at the First Congregational Church on Elm Street in Woodstock; the wedding reception was held at the Mansion. Laurance, born in 1910 in New York City to John D. Rockefeller Jr. and Abby Aldrich Rockefeller, grew up in a privileged atmosphere but learned to have a "deep regard for landscape beauty, history, and public parks" as well as "a sense of duty to society, respect for community, interest in nature, and appreciation of art."¹²⁵ He met his future wife Mary French through their brothers, who were roommates at Dartmouth. Throughout his life Laurance "developed an impressive history of service in the field of conservation," including the award of a Congressional Gold Medal in 1991. His approach to conservation was to mix conservation with venture capitalism, while at the same time recognizing conservation as "central to the welfare of the people."¹²⁶ He adopted a "responsible-use conservation philosophy" that saw the potential for man's work to be an improvement on nature. Like Billings, he saw "landscape beauty as a necessity for the individual and a reflection of the health of society and its balance with nature." His "conservation stewardship" ethos emphasized "both balanced responsible use and preservation for the benefit of society."¹²⁷ His conservation efforts were various, including establishing the American Forestry Association and aiding in the creation of the Virgin Islands National Park by donating 5,000 acres. He also served as a conservation advisor to presidents

¹²³ Aitken to Laura Billings, December 30, 1895. Aitken correspondence, BF&M, photocopies available at MABI.

¹²⁴ Auwaerter, Vol. 1, p. 201.

¹²⁵ Auwaerter, Vol. 1, p. 226.

¹²⁶ Auwaerter, Vol. 1, p. 226.

¹²⁷ Auwaerter, Vol. 1, p. 228.

from Eisenhower to Ford, and as chairman in 1958 of the Outdoor Recreation Resources Review Commission (it later inspired the Bureau of Outdoor Recreation, the Land and Water Conservation Fund, the Wilderness Act, and the National System of Scenic Rivers). In the 1960s, he chaired the White House Conference on Natural Beauty and the Citizens' Advisory Committee on Recreation and Natural Beauty with Lady Bird Johnson. In the Nixon and Ford administrations, he chaired the Citizens' Advisory Committee on Environmental Quality. The establishment of resorts near significant landscapes exemplified his approach of mixing capitalism and conservation. He founded a nationwide array of scenic resort hotels that came to be called Rockresorts, such as Caneel Bay Plantation near the Virgin Islands National Park. At Grand Teton National Park, he developed Jackson Hole Preserve, Inc.; and in Woodstock, he purchased the nineteenth century Woodstock Inn and redeveloped it as the Woodstock Inn & Resort to draw tourists to see the town of Woodstock and enjoy the recreational facilities nearby.¹²⁸

Mary and Laurance Rockefeller would eventually become the final private owners of the estate. After the death of Mary Montagu French in 1951, Mary French inherited the Mansion, while John French Jr. inherited the Hilltop Farm and Elizabeth French Hitchcock inherited a historic house called the Octagon Cottage, on the edge of the intervalle adjacent to the farm. The siblings also established a private corporation called Billings Farm Inc. in 1954 to incorporate the remainder of the estate, including the forest on Mount Tom, the farm and service buildings.¹²⁹ Laurance Rockefeller came to share Mary's "attachment to the family estate and Woodstock community" as "a place where they would share their common interest in leading an unostentatious lifestyle and leaving a beneficial, lasting legacy to the community."¹³⁰ The Rockefellers, like Billings' daughters, maintained the landscape as a monument to the early conservationist ideology of Frederick Billings and by extension George Perkins Marsh. They did not dramatically alter the landscape, aiming to "maintain and enhance its natural resources and historic character following the family tradition of stewardship."¹³¹ Rather than concentrate on setting the estate up as a "model of rural improvement," which had been Billings' goal, the Rockefellers instead concentrated on conservation and its tourist potential. The public was still allowed to use the carriage roads, and the Mansion drives were reserved for private family use, as they had always been.

In 1953, Mary Montagu Billings French's daughters donated land encompassing the north and south peaks of Mount Tom to Woodstock for use as a public park.¹³² As the family summered at Woodstock in the following years, Laurance Rockefeller began to extend his ethos of conservation and capitalism to the town of Woodstock. He thought that the area's "natural resources, rural character, and historic architecture" had to be preserved, not only for their

¹²⁸ Auwaerter, Vol. 1, p. 227.

¹²⁹ See Wilcke, et al, p. 85 and Auwaerter, Vol. 1, 225.

¹³⁰ Auwaerter, Vol. 1, p. 226.

¹³¹ Auwaerter, Vol. 1, p. 225.

¹³² Foulds, p. 73; Wilcke, et al, p. 85.

intrinsic value but also to ensure the “future economic survival of the community.”¹³³ To accomplish this, he purchased the Mount Tom and Suicide Six Ski Areas and the Woodstock Country Club in 1960 and 1961. After the June 1967 designation of the Mansion as a National Historic Landmark “for its significance in the history of American conservation as the boyhood home of George Perkins Marsh,” Laurance Rockefeller increased his efforts to unite venture capitalism with conservation. The Woodstock Inn & Resort, which opened in 1969, “would serve as an economic force to sustain and direct the area’s growing tourism and four-season recreation industry.”¹³⁴ The Woodstock Foundation, Inc. was also established in 1968 to aid in the development of Woodstock. Woodstock’s appeal as a tourist destination in the twentieth century was akin to nostalgic ideas about the agrarian landscape from the end of the nineteenth century, in which there was an increasing appreciation of the “virtues of rural simplicity” that had created this “new democratic ideal amidst this rural paradise.”¹³⁵

While the Rockefellers did engage in improvements to the Mansion, the outbuildings, the grounds, and the roads remained unaltered, as was the forest. John Wiggin, the estate forester hired in 1972, stated the “primary goal of forest activity at this time was to provide a superior aesthetic experience for the family and visitors to the forest.”¹³⁶ To improve access to the forest and enhance the public’s experience, the roads were graded, ditches and culverts cleaned, and vegetation cleared when necessary. Cross-country ski trails, placed along existing roads and trails, were also maintained beginning in 1977.¹³⁷

The only major addition to the road network was undertaken in 1978 in response to safety concerns and growing inefficiency. The narrowness of the existing drives near the Mansion, and the maturity and fragility of the ornamental plantings made it increasingly difficult for modern service vehicles, such as heating oil delivery trucks, to reach the core buildings. Furthermore, the establishment of the Vermont Folklife Project offices in the Carriage Barn in 1977 led to increased access needs, and it was decided to construct a Secondary Entrance Drive in the swale below the Carriage Barn. Designed by landscape architect Bryan J. Lynch, the drive was “a gently curving alignment through the swale between the Carriage Barn and the tennis court, reentering the existing drive to the Carriage Barn just north of the circle in the Main Entrance Drive.”¹³⁸ To fit in with the older drives, it too was surfaced with gravel and had steel edging.

Laurance Rockefeller bought the shares of Billings Farm Inc. from the surviving Billings heirs in 1974, reuniting the core property for the first time since Frederick Billings’ period of ownership. With the unification, the Rockefellers could “implement some of their most valued

¹³³ Auwaerter, Vol. 1, p. 229.

¹³⁴ Auwaerter, Vol. 1, p. 230.

¹³⁵ Albers, p. 242.

¹³⁶ Wilcke, et al, p. 85.

¹³⁷ Wilcke, et al, p. 90.

¹³⁸ Auwaerter, Vol. 1, p. 254.

conservation-stewardship objectives, including open space and historic preservation; expansion of outdoor recreational opportunities; encouragement and practice of the best principles of forest management; development of renewable clean energy; and the creation of related educational programs.”¹³⁹ Their wealth enabled them to act as stewards of Billings’ design, and also to continue a tradition of landscape preservation and stewardship.¹⁴⁰ Although the Rockefellers did make some alterations for better privacy and access, they maintained the grounds with minimal change. In 1992, the Rockefellers followed their vision of the importance of public space and donated the grounds and the 550-acre property to the public as Vermont’s first national park.

National Park Service Ownership

After the donation of the property by the Rockefellers in 1992, “legislation was passed establishing what was initially called Marsh-Billings National Historical Park, which united all three components of the historic Billings Estate--farm (Billings Farm & Museum), Mount Tom forests, and Mansion grounds--in a single park, although the farm would remain under separate ownership and operation.”¹⁴¹ The park became the “first national park to focus on conservation history and the evolving role of land stewardship” in this country.¹⁴² When the park opened to the public in 1998, the management was “a partnership between the National Park Service and the Woodstock Foundation, which operates the Billings Farm & Museum located on private land within the boundaries of the park.” The aim of the park and the partners was to “demonstrate and interpret a conservation philosophy that evokes a strong sense of place, created and sustained by stewardship--a vision that is respectful of natural processes and cultural traditions and relevant to community needs.”¹⁴³

This language reflects a change in thinking about landscape and conservation. Previously, nature and culture had been seen as a dichotomy, but the idea of “landscape” presented a way to integrate the two to create “a strong sense of place.” As the park presents both the cultural heritage of the park -- the Mansion -- and the natural heritage -- the reforestation of the land -- it manages to present a comprehensive landscape. The carriage road network exemplifies this integration. While the road network was the result of cultural forces, it fits within and is surrounded by a natural environment. In fact, even the landscape itself reflects the symbiosis of nature and culture. A shift in thought that now places more attention on “settled landscapes--large areas with a complex of natural and cultural resources where people live and

¹³⁹ Auwaerter, Vol. 1, p. 232.

¹⁴⁰ Auwaerter, Vol. 1, p. 221.

¹⁴¹ Auwaerter, Vol. 1, p. 269.

¹⁴² Marsh-Billings-Rockefeller National Historical Park, “An Introduction to the Grounds and Gardens.”

In-house report prepared for ranger training. Woodstock, VT, May 1999, p. 1.

¹⁴³ Nora J. Mitchell and Rolf Diamant, “Nature, Culture and Conservation: Defining Landscape Stewardship,” *Environments* 26, no. 1 (1998): 45.

work” has made the study of the Marsh-Billings-Rockefeller landscape pertinent.¹⁴⁴ Rather than focusing on individual “cultural” resources, the park’s stewardship extends to the entire landscape as an amalgam of both cultural and natural resources. The carriage road network continues to be maintained and used by both local residents and park visitors, still fulfilling the goals of Billings and remaining a testament to the development of conservation thought in America.

Conclusion

While Frederick Billings wanted the carriage roads to be his greatest achievement, it is now his forestry efforts that are most lauded. Billings was, after all, chair of the first Forestry Commission of Vermont, and his reforestation efforts resulted in one of the first managed forests in the country, earning the American Tree Farm System designation of “Vermont Tree Farm, Number 1.”¹⁴⁵ Billings was “proud of Mount Tom and the network of roads he constructed around it,” and the roads were meant to be a monument.¹⁴⁶ Perhaps ultimately the carriage road network has become Billings’ most outstanding achievement, as it manifests in physical form changes in both conservation thought and ideas about the wilderness.

Fascination with wilderness has permeated American intellectual thought. Western culture and Christianity have traditionally viewed man as superior to the environment since the church taught that man had been created in God’s image. The result of this thinking was a perceived free rein for man to use the environment with complete abandon in the quest to create civilization. Attendant with this view of man as superior was the belief that wilderness was an evil and immoral force that could degenerate men if left unconquered. Progress, therefore, could be measured in physical terms through the disappearance of the natural world and the appearance of a manmade environment. As Roderick Nash points out: wilderness was as “barren to progress, prosperity and power as it was to godliness.”¹⁴⁷ The development of Romanticism from the late eighteenth to mid-nineteenth centuries, with its emphasis on the picturesque and the sublime, allowed for a greater appreciation of the virgin wilderness. Romanticism, along with Transcendentalism, created a more sympathetic view regarding the importance of nature and resulted in increasing agitation for its preservation. Another result of this shift was the rise in popularity of the genre of landscape painting, as seen in the Hudson River School and the painter Thomas Cole, and the travels of the upper classes as they searched for the picturesque. Increasing scientific knowledge regarding nature and the universe as a whole led to a greater appreciation of the natural world as well. At the end of the nineteenth century, wilderness was no longer viewed as a threat, but instead had become a national characteristic that was in danger

¹⁴⁴ Mitchell and Diamant, 43.

¹⁴⁵ “An Introduction to the Grounds and Gardens,” 2.

¹⁴⁶ Albers, p. 7.

¹⁴⁷ Roderick Nash, *Wilderness and the American Mind* rev. ed. (Clinton, MA: The Colonial Press, Inc., 1974), (New Haven: Yale University Press, 1967, 1973), p. 40.

of being lost. By the 1890s, “this sense of discontent with civilization, which was no less uncomfortable because of its vagueness, in *fin-de-siecle* America was ripe for the widespread appeal of the uncivilized.”¹⁴⁸ Perhaps the greatest indication of this reversal in the thought was the “return to nature” movement among “overcivilized” upper class men and women. Exemplified by Theodore Roosevelt, they made contact with the primitive and the wilderness through outdoor activities like hiking, camping, and fishing. Billings’ thinking was informed by conceptions of Romanticism and the search for the vestigial wilderness.

The good stewardship of Billings’ descendants and the Rockefellers has allowed this example of a model nineteenth century landscape to survive, with additions that reflect changes in land use. In some ways, though, this landscape remnant raises questions about the efficacy of personal conservation, for despite hopes that a model landscape’s influence would ripple out by educating the larger community, the Marsh-Billings-Rockefeller landscape remains more of an example of conservation thought impacting the landscape rather than initiating substantial changes in thought.

¹⁴⁸ Nash, p. 144.

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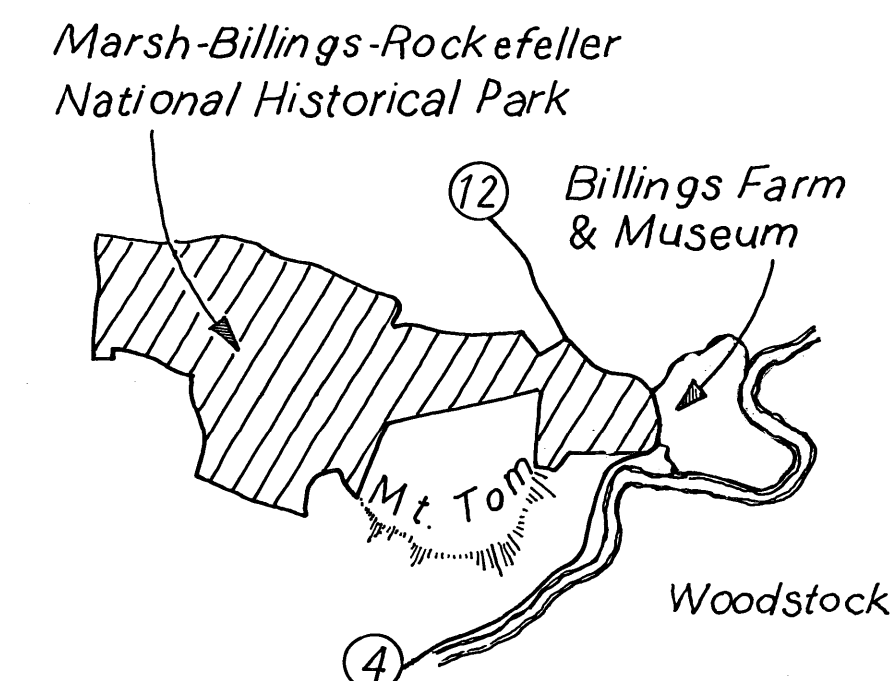
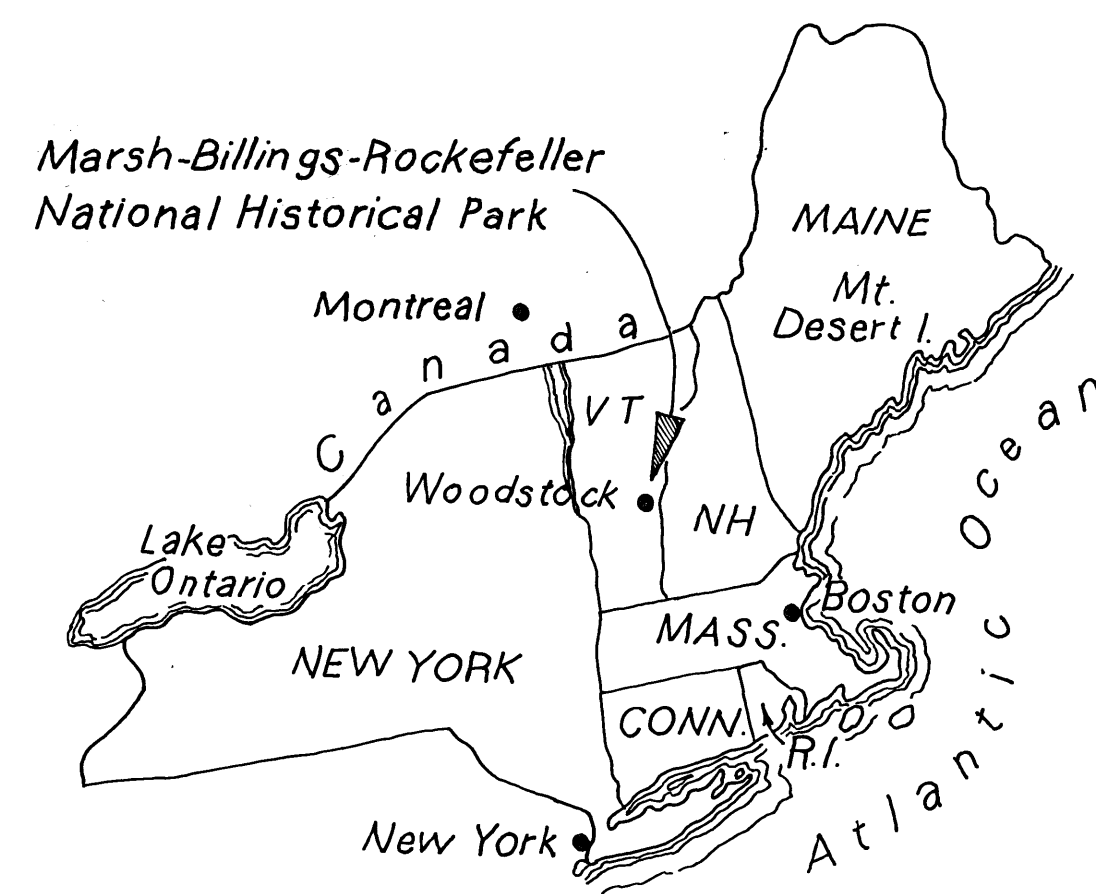
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MARSH BILLINGS ROCKEFELLER NATIONAL HISTORICAL PARK



The Marsh-Billings-Rockefeller National Historical Park is a 550-acre site encompassing most of Mount Tom, a small peak rising 1359 feet above the village of Woodstock, Vermont. The park is named for the property's three most prominent former residents: pioneering environmentalist George Perkins Marsh, businessman and scientific forestry supporter Frederick Billings, and conservationist Laurance Rockefeller. The carriage road system consists of approximately 10 miles of dirt and gravel roadways that provide access to various portions of the park and lead to the summit of Mount Tom, which lies just beyond the park boundary. The majority of the carriage roads were constructed at Billings' behest between 1880 and 1895.

The Mount Tom carriage roads exemplify the marriage of form and function. When Frederick Billings purchased the boyhood home of George Perkins Marsh in 1869, he set about creating a carriage road system that would be as useful as it was attractive. Having made a fortune in mining and railroads in the American West, Billings was determined to show that profitable land management could coincide with environmental stewardship and aesthetic improvement. His model farm and forestry operations were intended to demonstrate how Vermonters could improve their land to restore its appearance, environmental stability, and profitability. The carriage road system was an essential component of this effort. Billings hoped that visitors attracted by the roadways' scenic views would be influenced by his carefully planned forest improvement projects, which were among the earliest scientific forestry efforts in the nation.

Soon after Billings purchased the Marsh property, he began expanding the existing collection of utilitarian farm roads to create a comprehensive transportation network that would accommodate day-to-day management activities while serving as pleasure routes for excursionists on foot or in carriages. Billings had engaged one of America's most prominent landscape gardeners, Robert Morris Copeland, to embellish the mansion grounds, but there is no record that Copeland made specific suggestions for the broader carriage drive system.



Carriage Roads

The Marsh-Billings-Rockefeller National Historical Park Carriage Road Recording Project was undertaken during the summer of 2001 and is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. HAER (Eric DeLony, Chief) is administered by the Historic American Buildings Survey/Historic American Engineering Record (E. Blaine Cliver, Chief), a division of the National Park Service, U.S. Department of the Interior. The project was funded by the U.S. Department of Transportation's Federal Lands Highway Program (Art Hamilton, Administrator) through the NPS Park Roads and Parkways Program (Todd A. Croteau, Manager) and co-sponsored by Marsh-Billings-Rockefeller National Historical Park

(Rolf Diamant, Superintendent) in cooperation with the Billings Farm & Museum and the Woodstock Foundation, Inc. (David Donath, President, Marian Koetsier, Administrative Officer).

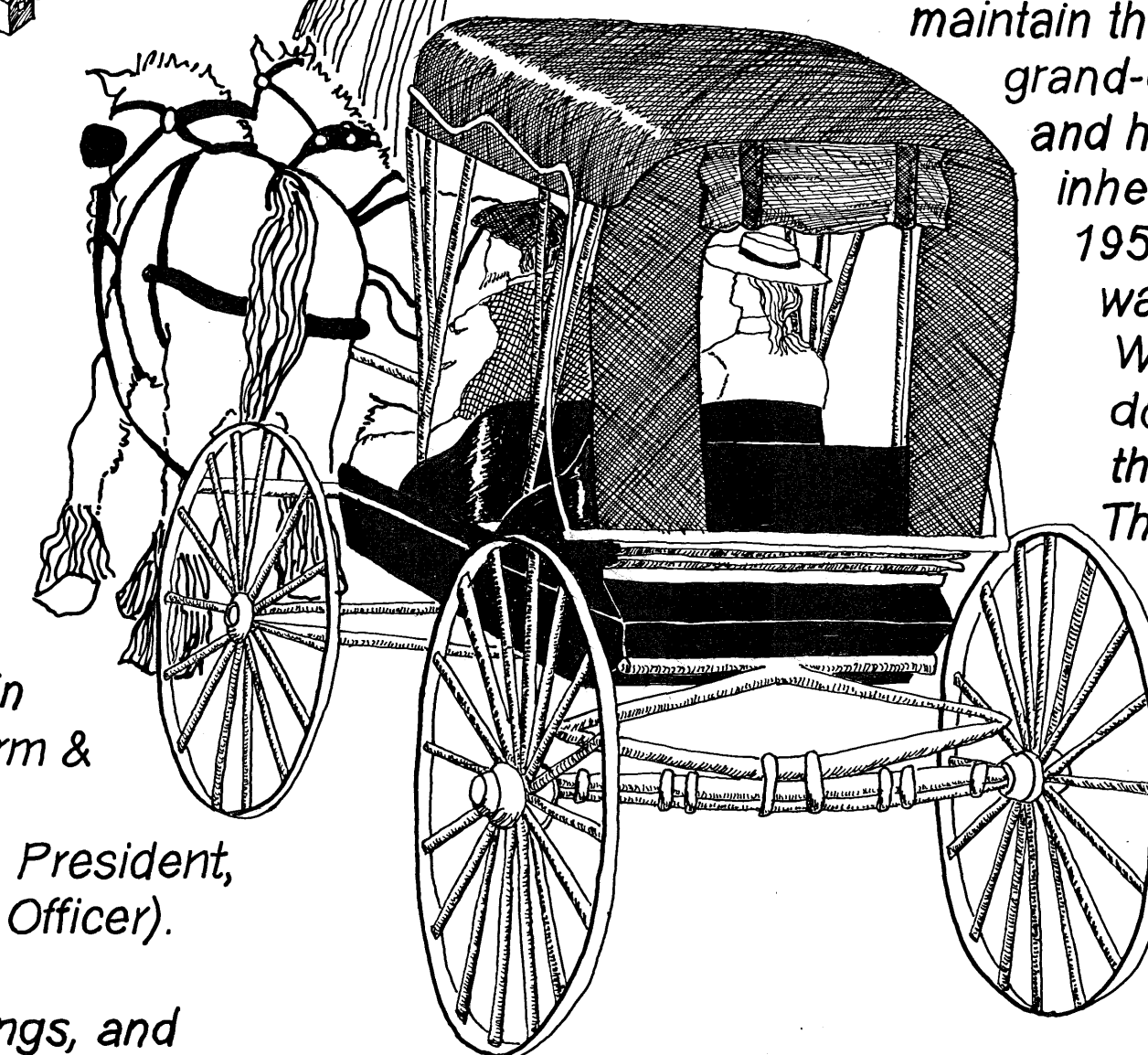
The field work, measured drawings, and historical report were completed under the direction of Christopher Marston, Project Leader and Tim Davis, Program Historian. The recording team consisted of Field Supervisor and Landscape Architect Chris Gray (Texas A & M University); Landscape Architect Aaron Feldman-Grosse (Penn State University); Botanical Illustrator Amy Mark (Southern Oregon State College); and Historian Katie Wollan (UC, Santa Barbara). Large format photography was completed by David Haas.

Nevertheless, the carriage roads exemplify the picturesque landscape design principles that were fashionable at this time. The drives display a striking variety of scenic effects, from shady tunnels of Norway Spruce to brilliant green meadows and sun-dappled open woodlands composed of towering mixed hardwoods. A tumbling waterfall enlivens the main roadway, which was embellished with rustic bridges and culverts, stone watering troughs, and an exhilarating stone causeway that provided sweeping vistas over the surrounding landscape until the surrounding trees grew to obstruct the view. One of the many engaging side roads loops around the artfully reconfigured pond known as The Pogue. The culmination of the trip is the summit of Mount Tom, which offers panoramic vistas of Woodstock and its environs.

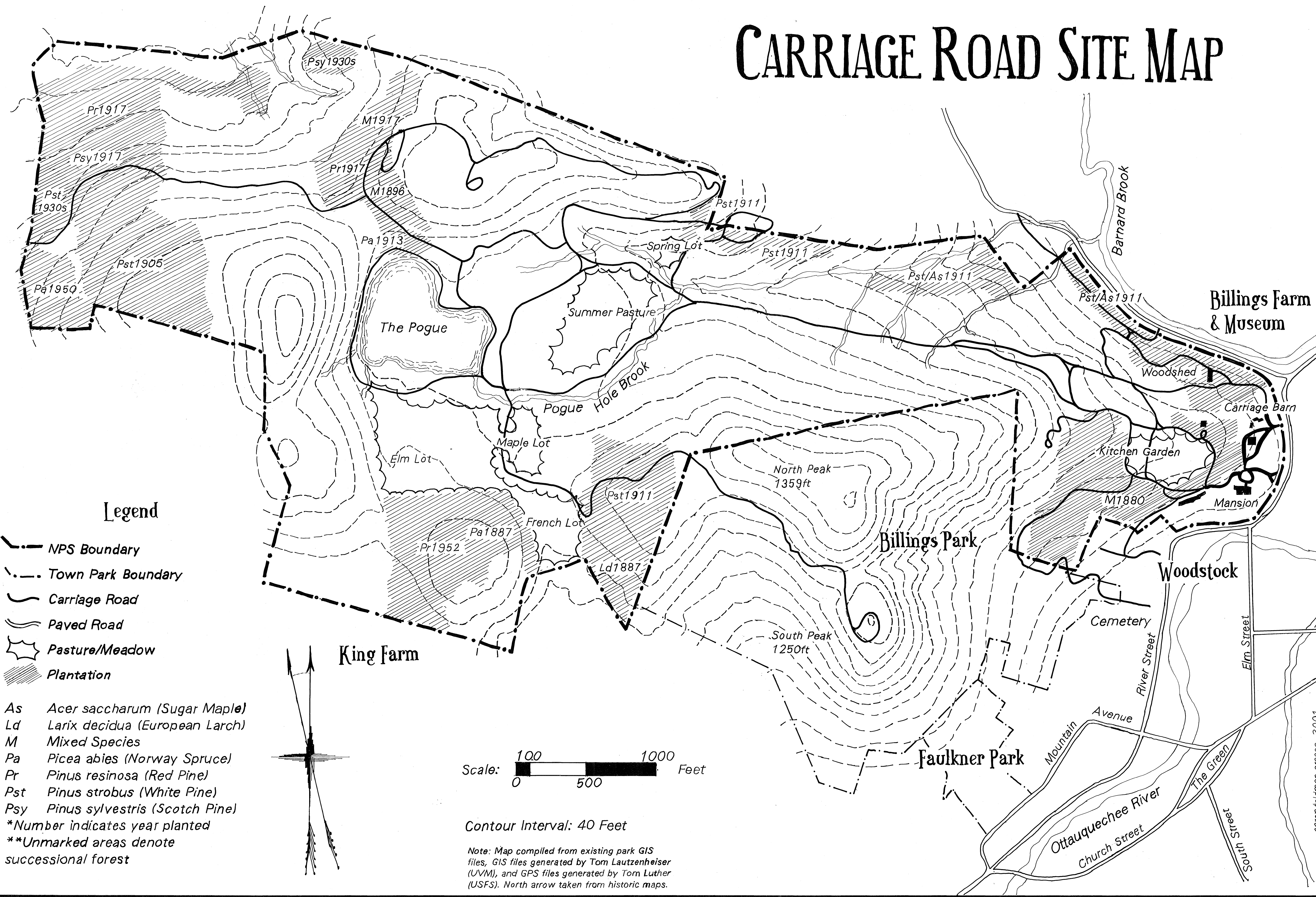
Following Billings' death in 1890, his widow Julia and their daughters continued to improve and maintain the estate and its roads. Billings' grand-daughter, Mary French Rockefeller, and her husband, Laurance Rockefeller, inherited the bulk of the property in 1953; the south peak of Mount Tom was deeded to the Town of Woodstock. The Rockefellers donated their portion of the estate to the National Park Service in 1992. The park was formally opened in 1998.

The Mount Tom carriage road system continues to lead visitors through a rejuvenated landscape that reflects some of the earliest conservation efforts in Vermont. The roads wind in and out of majestic stands of hundred-year old trees, run along summer pastures and hayfields lined

with ancient sugar maples, and climb to provide entrancing views of Woodstock from the south peak of Mount Tom. As the roads wind through the park's fields and forests, they connect present-day visitors with the history of forestry and conservation in Vermont and with the legacies of the park's three namesakes: Marsh, Billings, and Rockefeller.



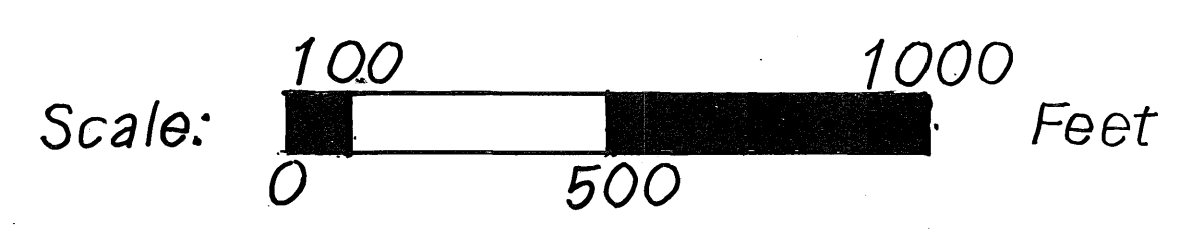
CARRIAGE ROAD SITE MAP



Legend

- NPS Boundary
- Town Park Boundary
- Carriage Road
- Paved Road
- Pasture/Meadow
- Plantation

- As *Acer saccharum* (Sugar Maple)
- Ld *Larix decidua* (European Larch)
- M Mixed Species
- Pa *Picea abies* (Norway Spruce)
- Pr *Pinus resinosa* (Red Pine)
- Pst *Pinus strobus* (White Pine)
- Psy *Pinus sylvestris* (Scotch Pine)
- *Number indicates year planted
- **Unmarked areas denote successional forest

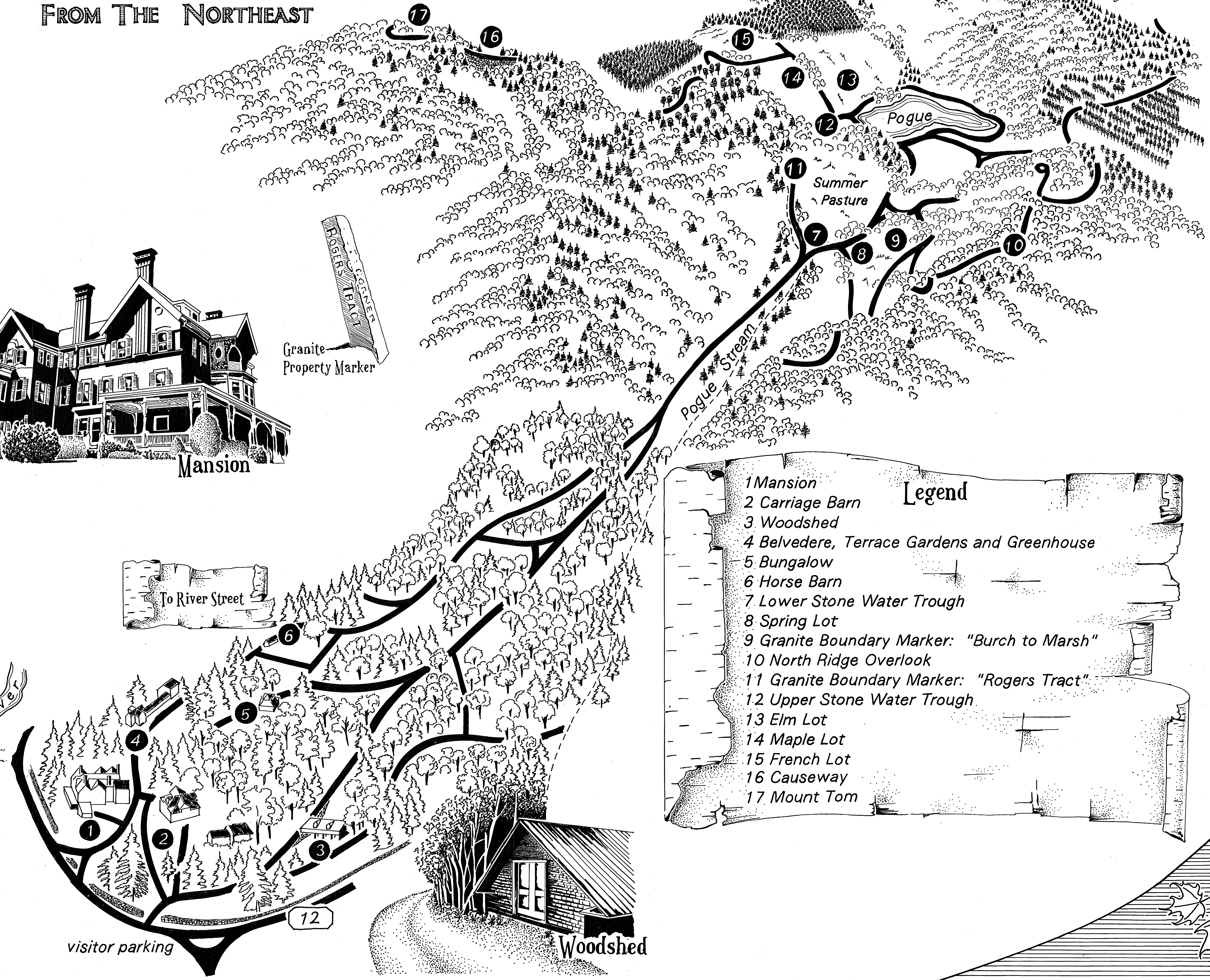
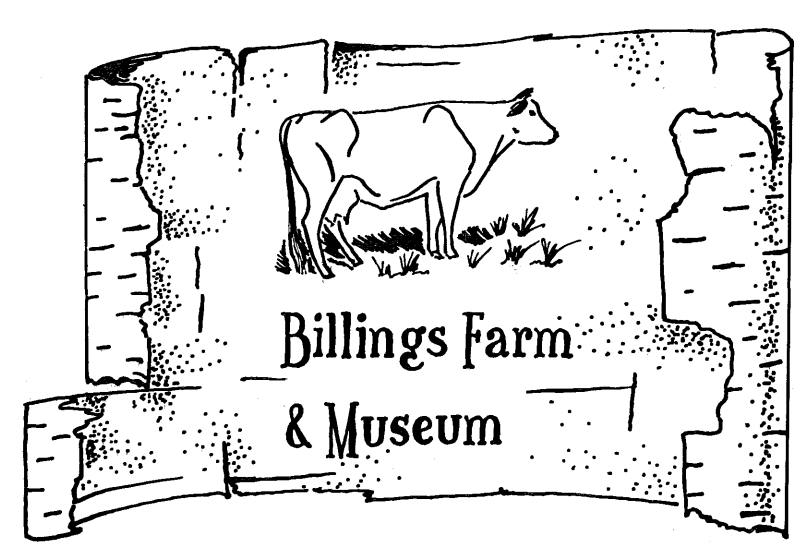
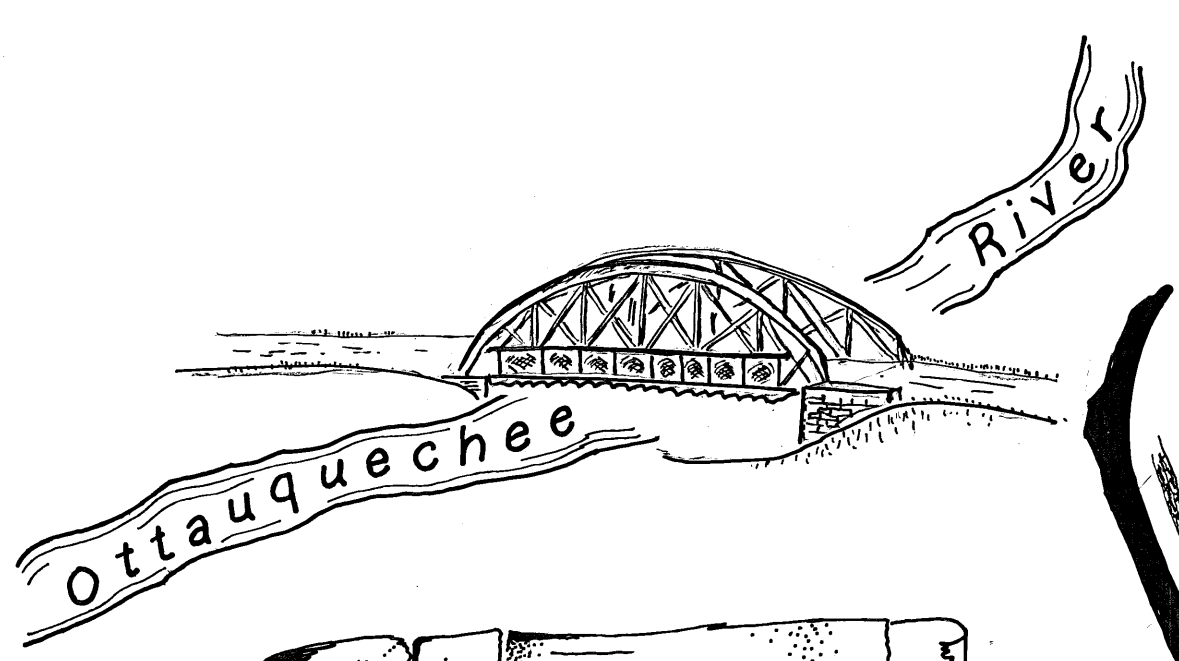
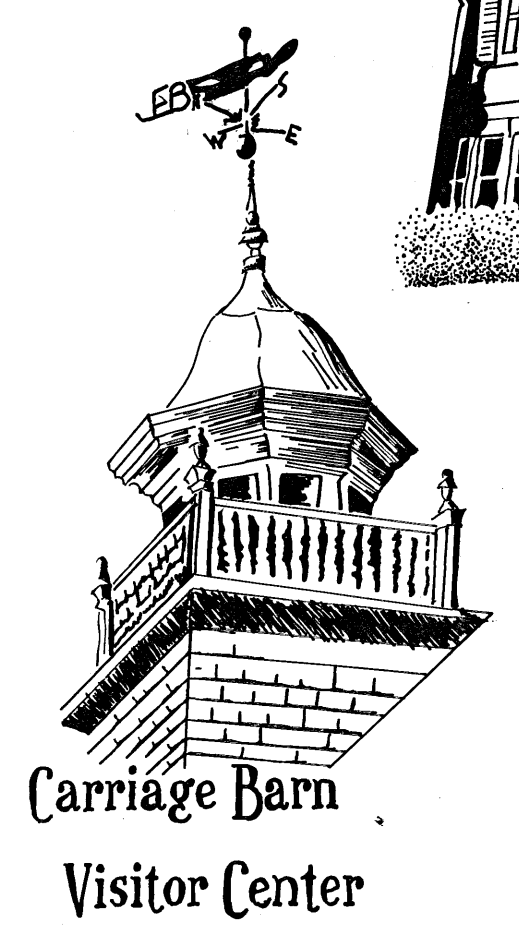
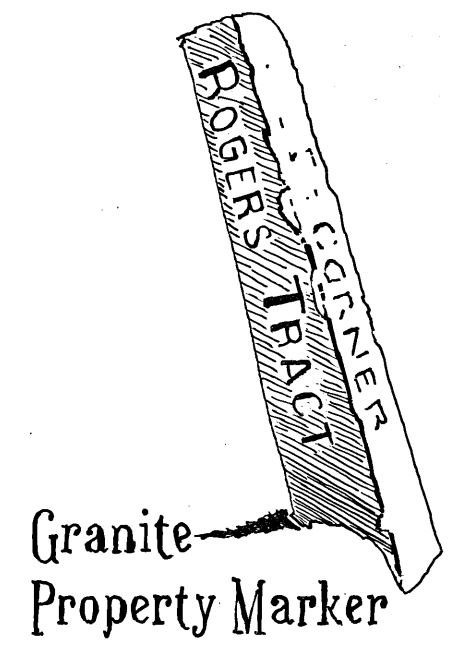
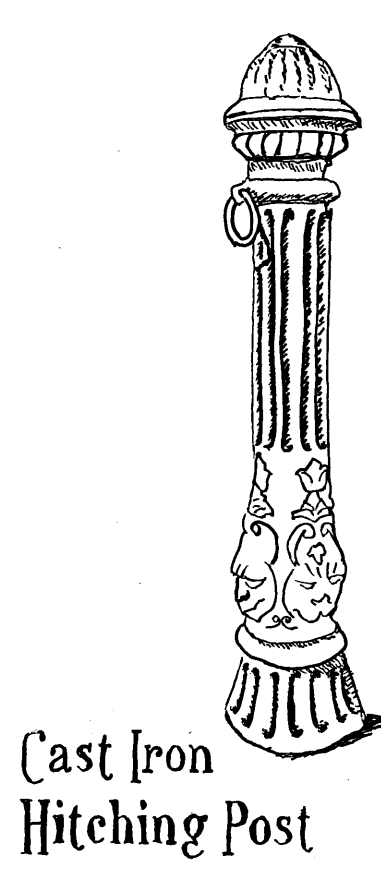


Contour Interval: 40 Feet

Note: Map compiled from existing park GIS files, GIS files generated by Tom Lautzenheiser (UVM), and GPS files generated by Tom Luther (USFS). North arrow taken from historic maps.

BIRD'S EYE VIEW

FROM THE NORTHEAST



1 Mansion

2 Carriage Barn

3 Woodshed

4 Belvedere, Terrace Gardens and Greenhouse

5 Bungalow

6 Horse Barn

7 Lower Stone Water Trough

8 Spring Lot

9 Granite Boundary Marker: "Burch to Marsh"

10 North Ridge Overlook

11 Granite Boundary Marker: "Rogers Tract"

12 Upper Stone Water Trough

13 Elm Lot

14 Maple Lot

15 French Lot

16 Causeway

17 Mount Tom

Legend

DELINEATED BY Amy Mark, 2007
NPS ROADS & BRIDGES
RECORDING PROGRAM
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

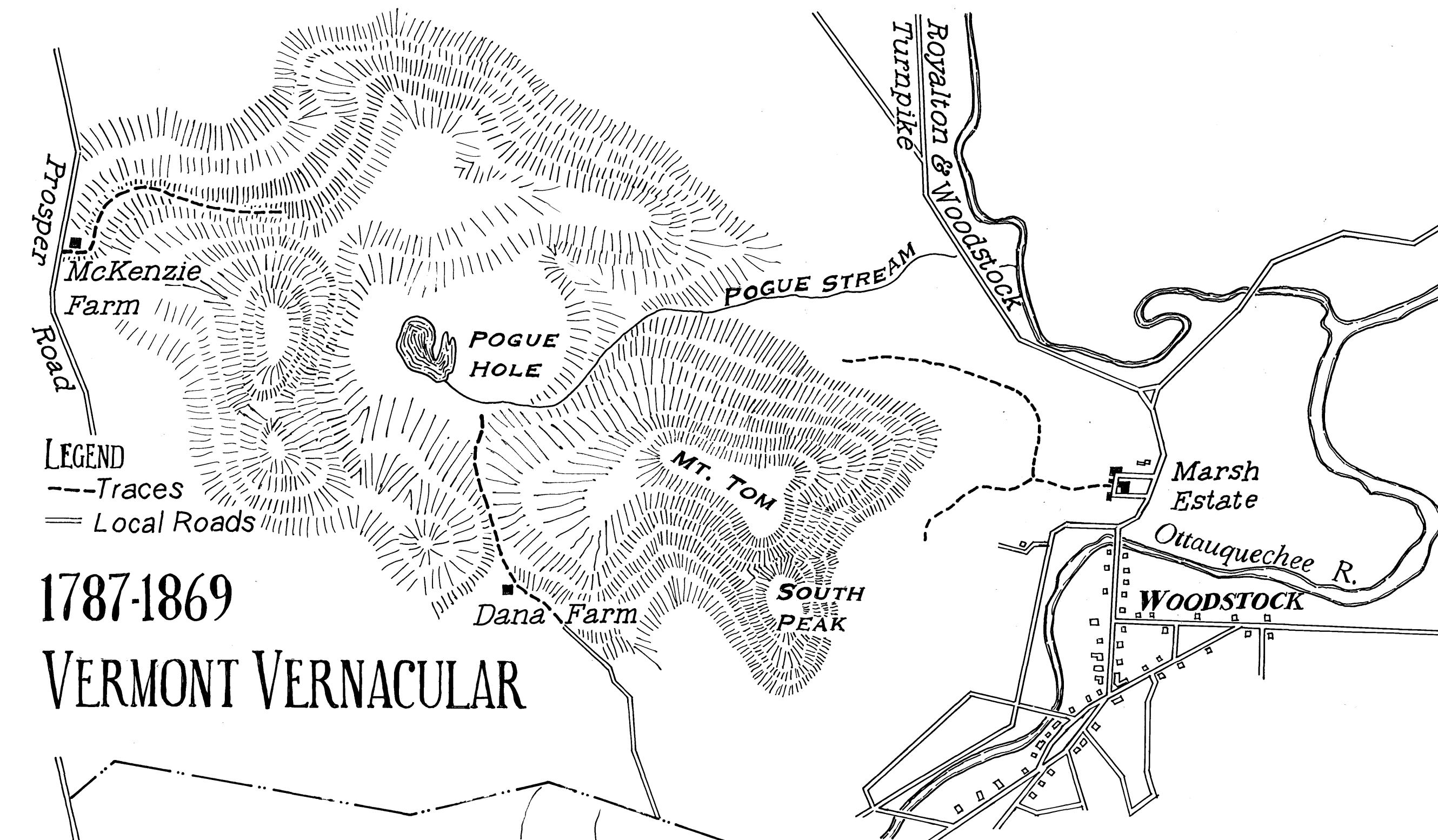
MARSH-BILLINGS-ROCKEFELLER CARRIAGE ROADS
MARSH-BILLINGS-ROCKEFELLER NATIONAL HISTORICAL PARK
WINDSOR COUNTY

WOODSTOCK

VERMONT
SHEET 3 of 10
HISTORIC AMERICAN
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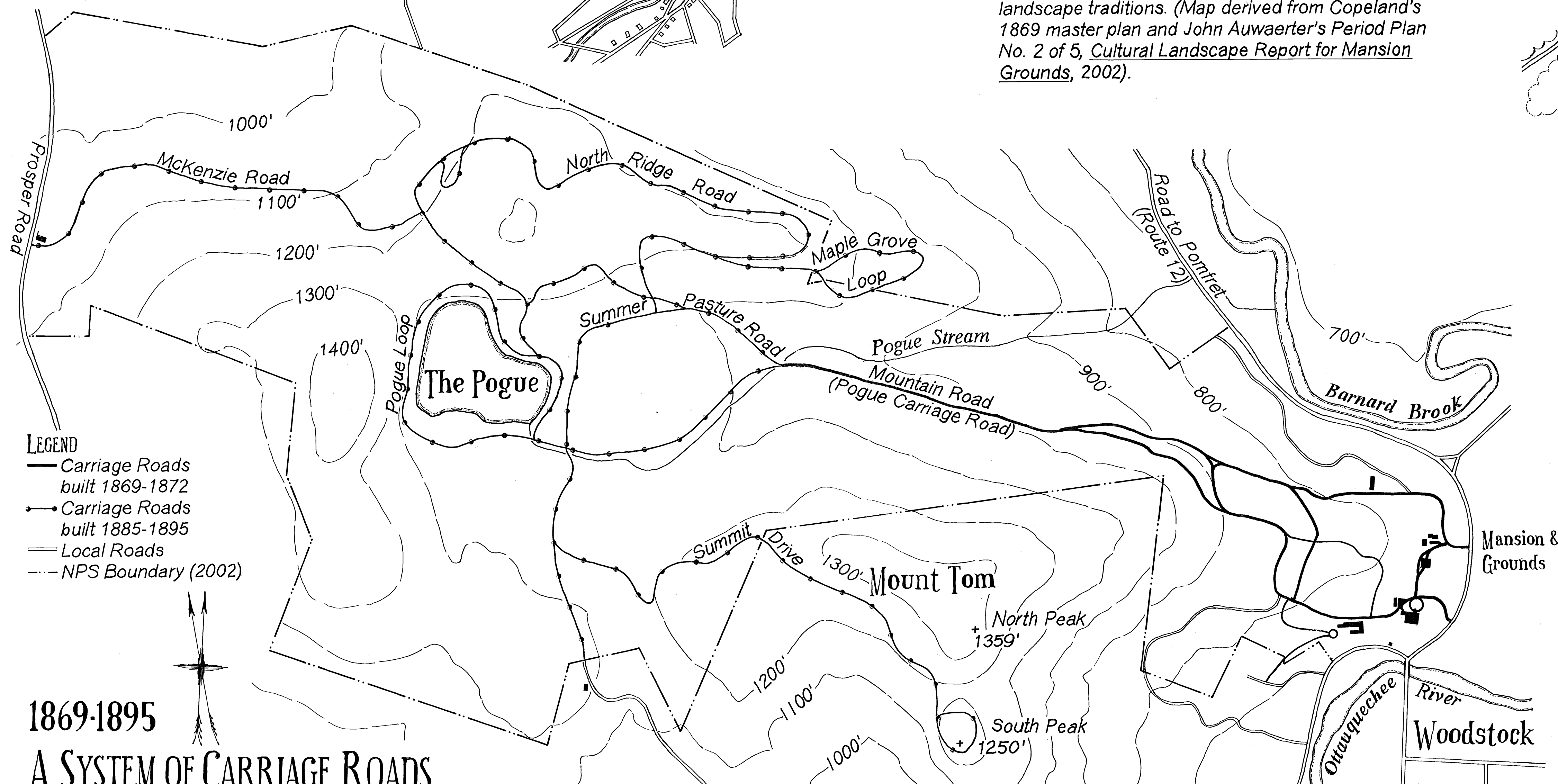
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EVOLUTION OF THE CARRIAGE ROADS



1787-1869

VERMONT VERNACULAR



1869-1895

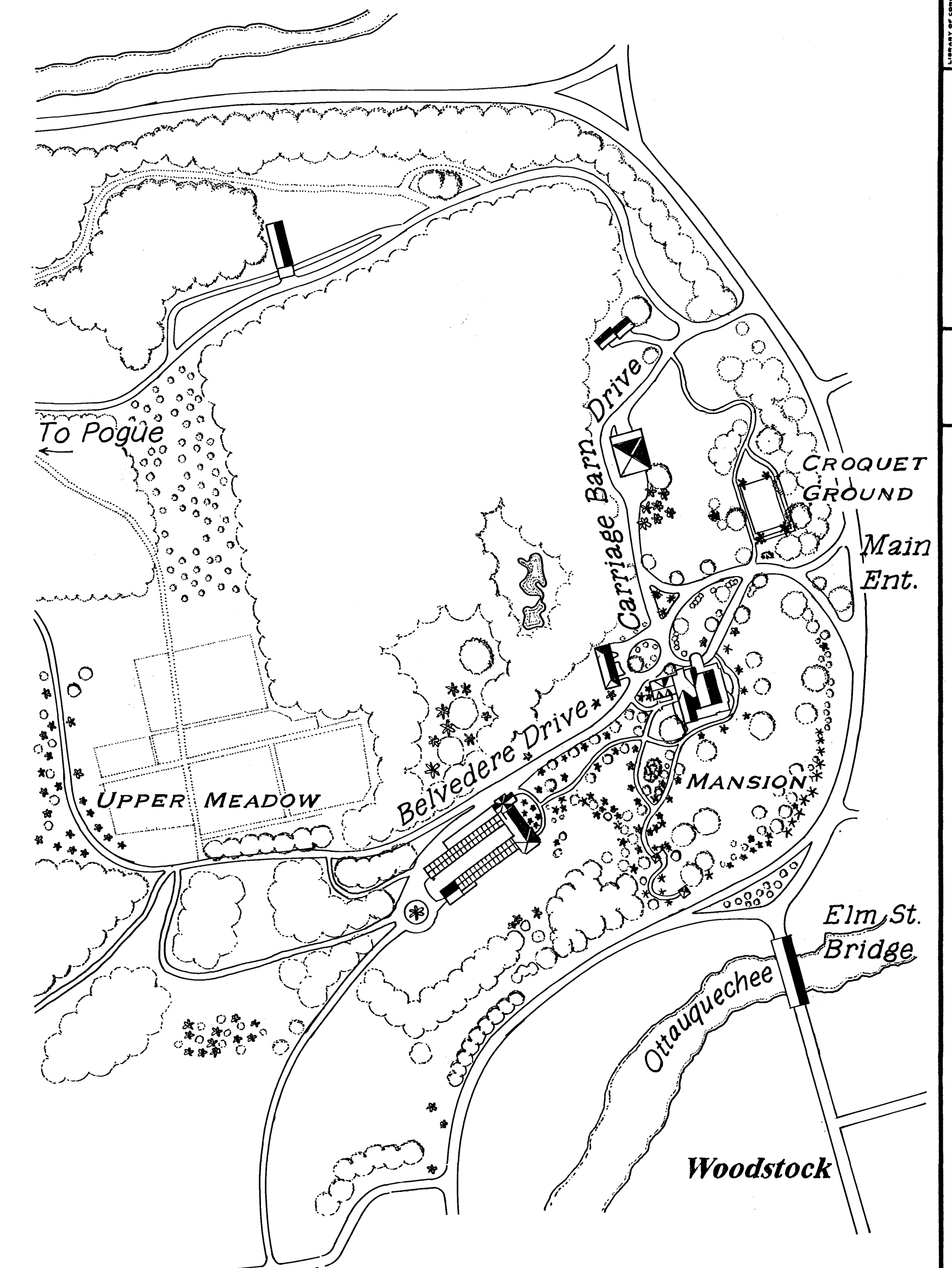
A SYSTEM OF CARRIAGE ROADS

Vermont Vernacular, 1787-1869

Before the Civil War, the local landscape reflected typical vernacular landscape patterns. Modestly improved public roads connected Woodstock with surrounding villages and farms, like those owned by Dana and McKenzie. More primitive farm traces provided access to pasture and woodlands, as seen on the Marsh property.

A Gentleman's Estate, 1869-1890

Frederick Billings purchased the property in 1869 with the intent of creating a model farm and landscape. He hired Robert Morris Copeland to design the mansion grounds following the "ideal plan" found in Copeland's book, *Country Life*. Formal drives provided an elegant introduction to the house and grounds, while roads behind the mansion led to the service buildings. The plantings and drives exemplified contemporary Victorian landscape traditions. (Map derived from Copeland's 1869 master plan and John Auwaerter's Period Plan No. 2 of 5, *Cultural Landscape Report for Mansion Grounds*, 2002).



1869-1890 A GENTLEMAN'S ESTATE

A System of Carriage Roads, 1869-1895

Billings began road construction in earnest in 1885 with the acquisition of the Dana and McKenzie (1892) properties. The "broad, smooth, and graveled" roads allowed the Billings family and visitors to pleasantly experience the model landscape. Billings authorized more work to be done on the carriage roads in 1890, including the enlargement of the Pogue from a bog to a picturesque pond surrounded by a loop road and the construction of a drive to the North Ridge. By 1895, the work had been completed. According to the *Vermont Standard*, the drive to the summit of Mount Tom was a "striking ornament to the loveliest town in New England" and with the completion of the road network, created a "perfect public park." Billings considered the carriage road system to be his monument.

DELINEATED BY: Christopher H. Marston, 2004

NPS ROADS & BRIDGES
RECORDING PROGRAM
UNITED STATES DEPARTMENT OF THE INTERIOR

MARSH-BILLINGS-ROCKEFELLER CARRIAGE ROADS
MARSH-BILLINGS-ROCKEFELLER NATIONAL HISTORICAL PARK
WINDSOR COUNTY

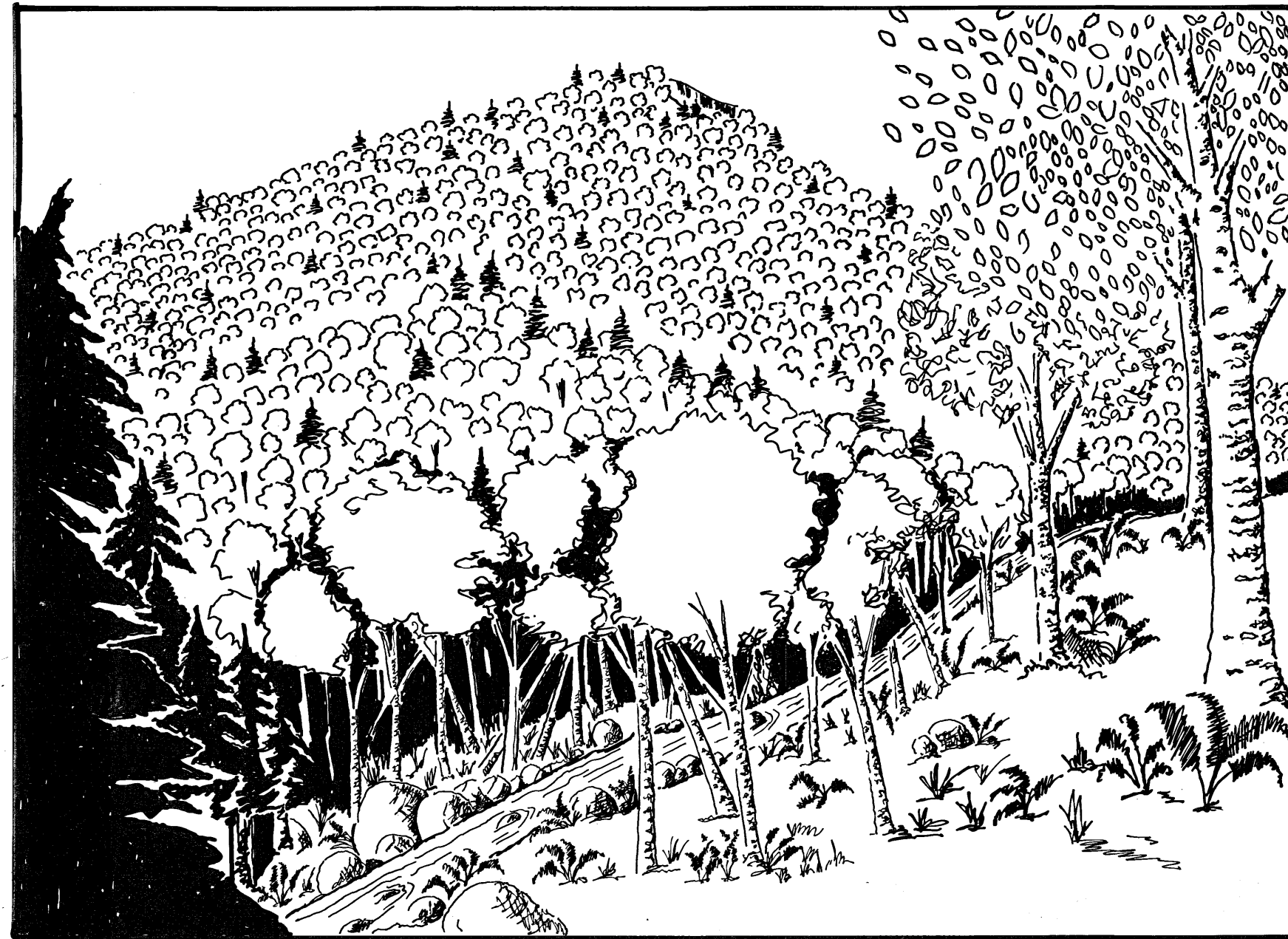
VERMONT

SHEET
4 of 10

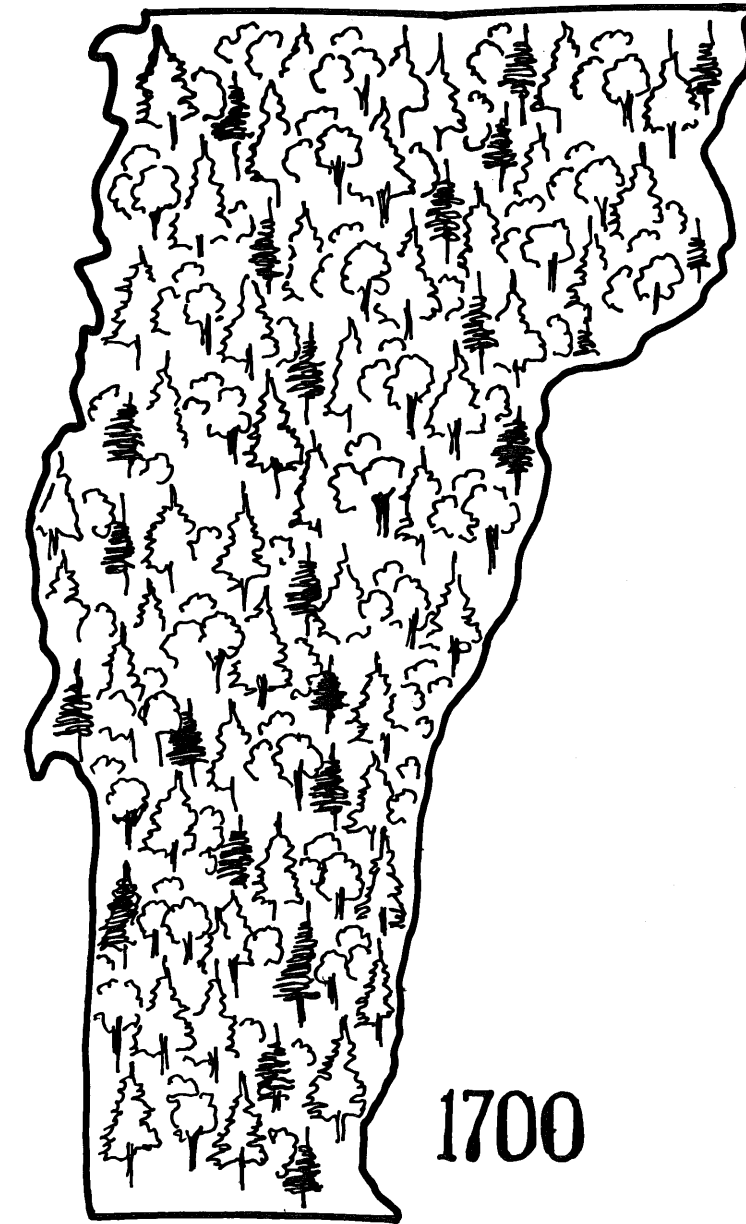
HISTORIC AMERICAN
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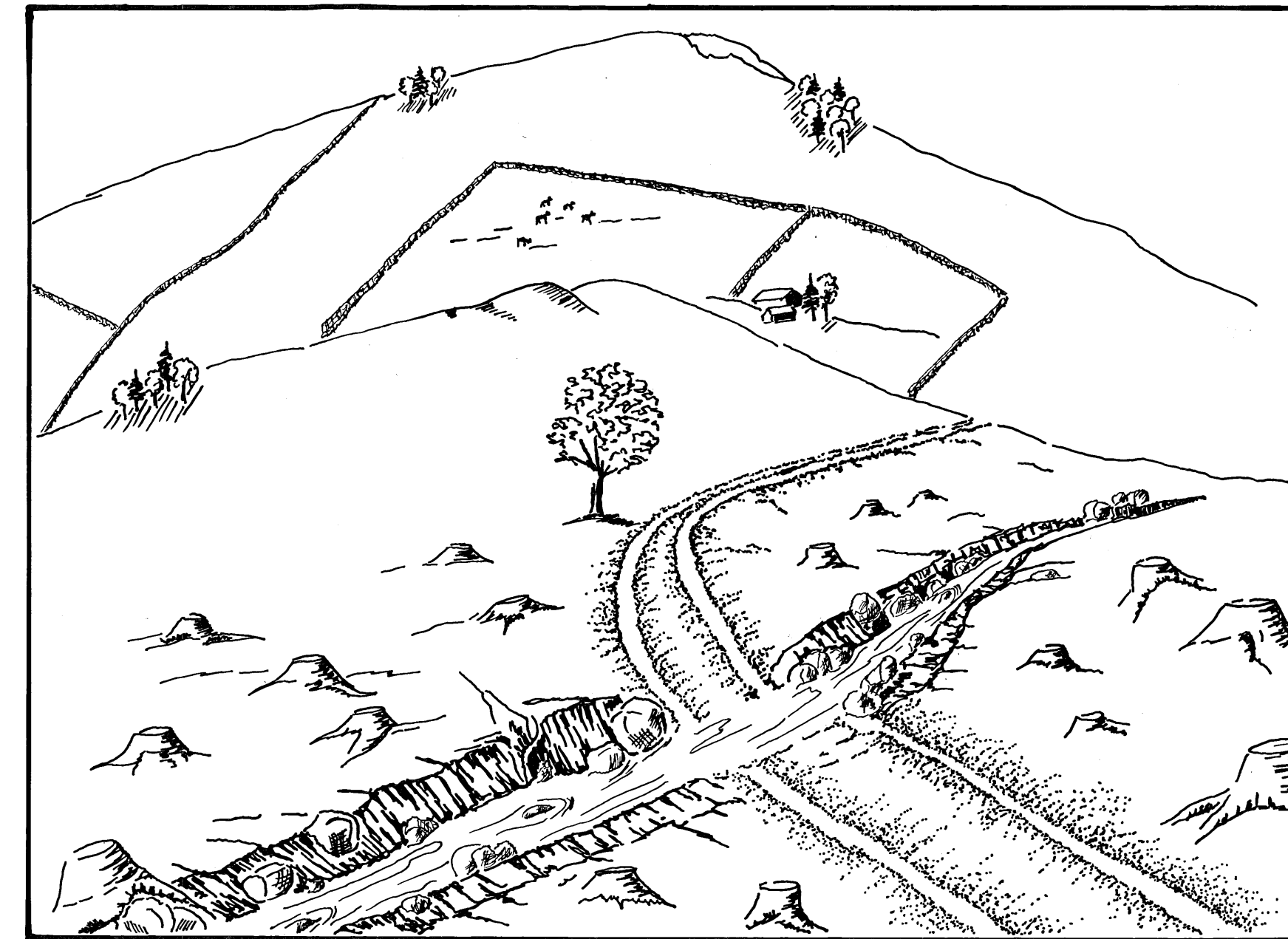
THE RECOVERING LANDSCAPE



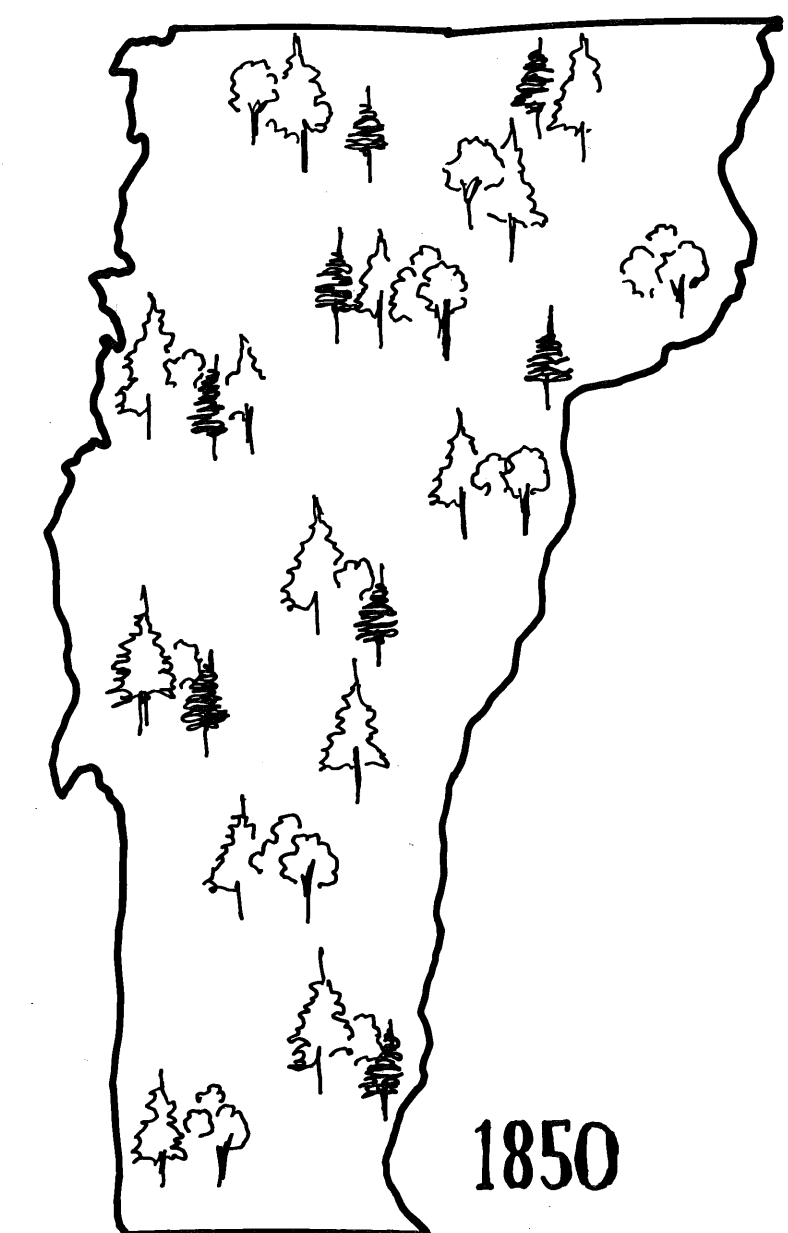
Before European settlement, the Vermont landscape was dominated by mature forests of mixed hardwoods and evergreens such as chestnut, elm, maple, white pine and spruce. Native Americans maintained small cornfields but their impact was minimal. By the mid-eighteenth century settlers were beginning to migrate to this undeveloped frontier. With them came agricultural practices that would result in the clearing of the virgin forest.



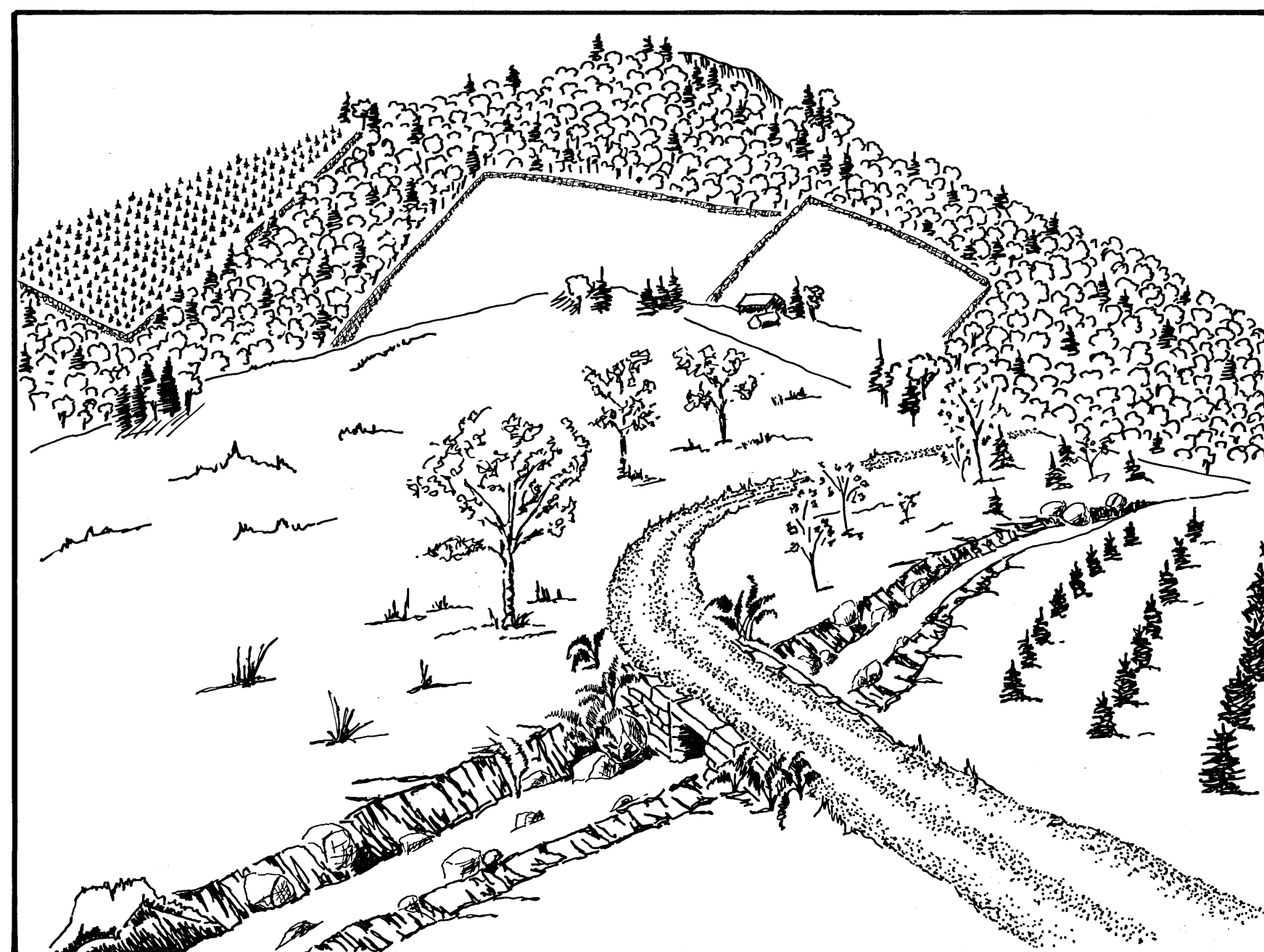
1700



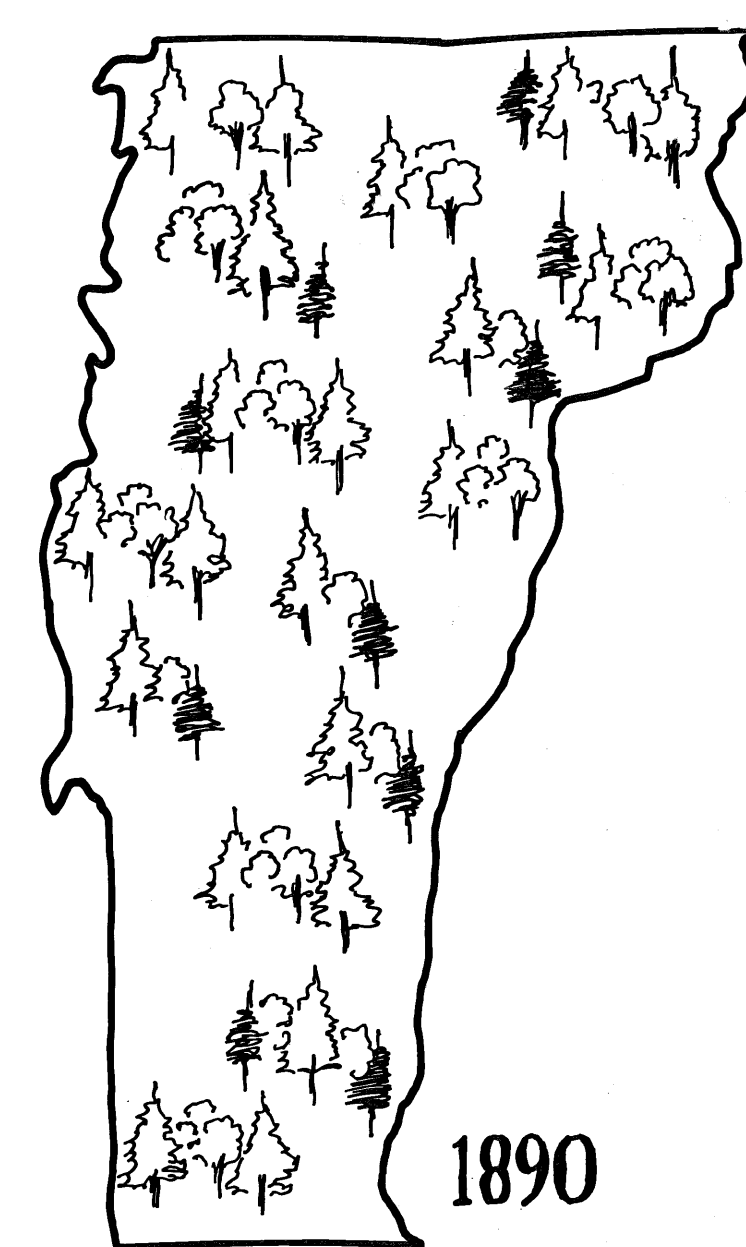
Forests throughout Vermont were cleared for tillable land, sheep pasture, potash, and timber. Small farms and villages dotted the landscape and were connected by a sprawling network of primitive or modestly improved roads. By the mid-nineteenth century, nearly 70% of the state's land had been cleared of its forests, significantly altering ecological systems, but presenting an image of agricultural tranquility.



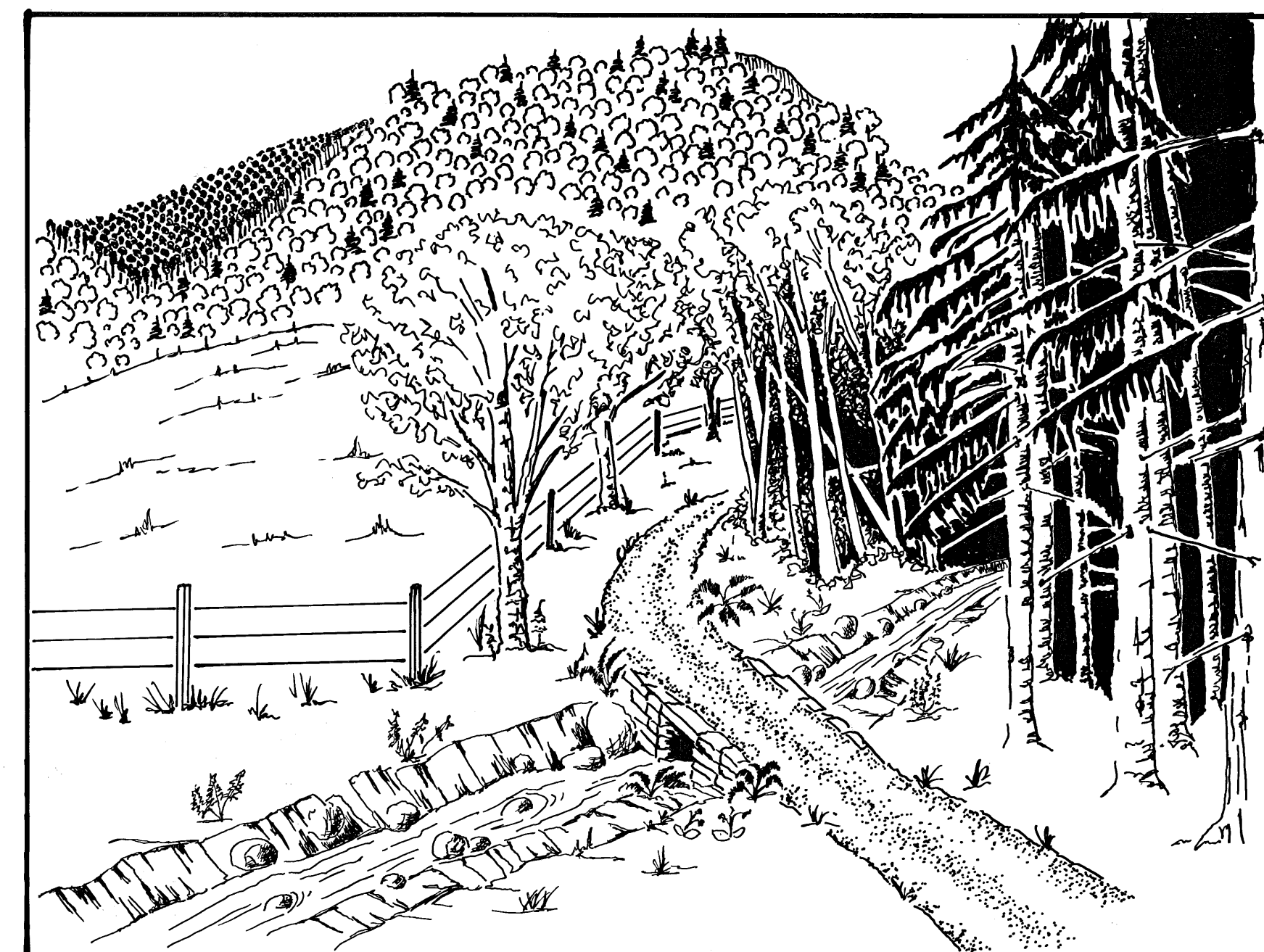
1850



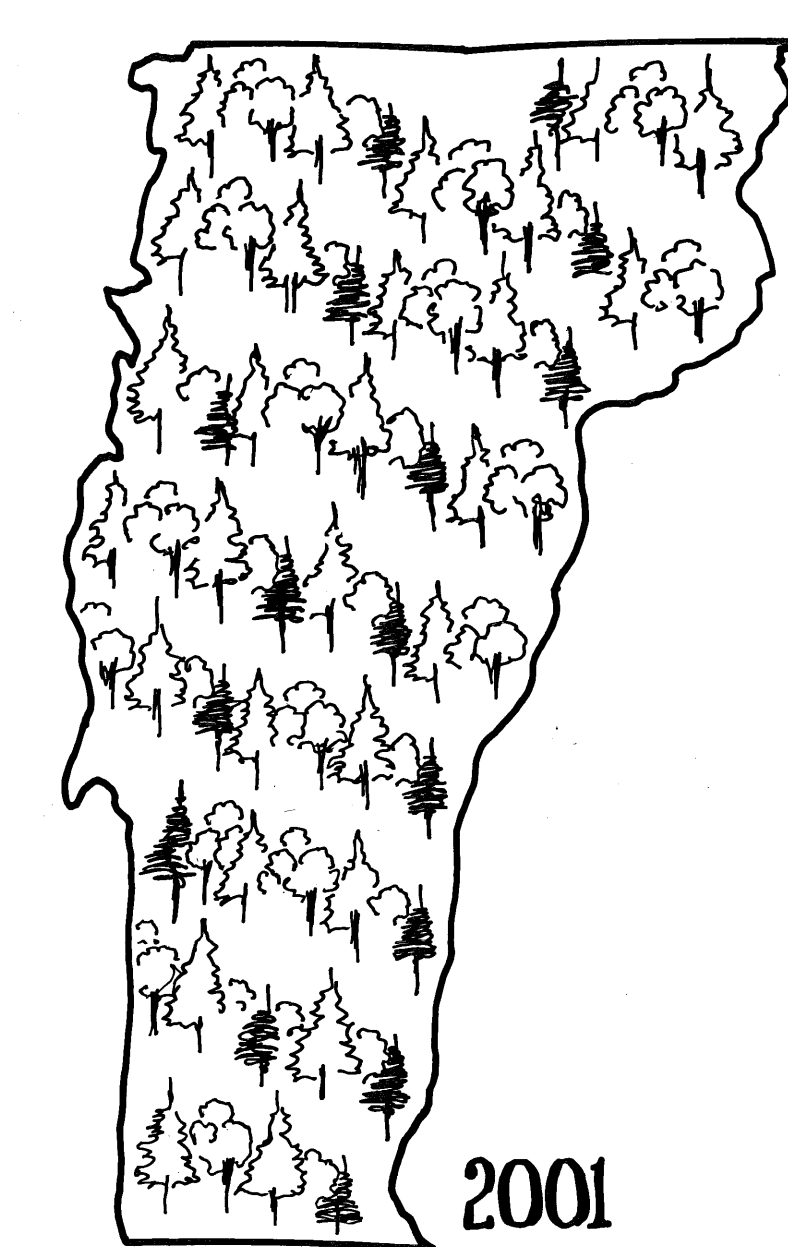
By 1890 Vermont was a landscape in transition. The economy was in decline, farms were being abandoned at an alarming rate, and villages were losing population to cities and more productive agricultural regions. Natural forest succession began to fill old fields and pastures with new growth. Frederick Billings and others assisted this revegetation process by initiating progressive forestry and land stewardship programs.



1890



With farm abandonment continuing throughout the twentieth century and stewardship efforts expanding, Vermont's forests have returned to a semblance of their original condition. The state is now almost 80% forested. The reforestation of Vermont provides a compelling story of ecological recovery, but the disappearance of farmland may eventually compromise the state's long-cherished image as a timeless repository of traditional New England scenery and rural life.



2001



Northern Hardwood Forest

Much of the carriage road system passes through Northern hardwood forest, with its characteristic mix of Eastern Hemlock and deciduous trees including Yellow Birch, American Beech, Sugar Maple and White Ash. During the summer a vibrant understory of ferns and wood nettle create a lush green effect.

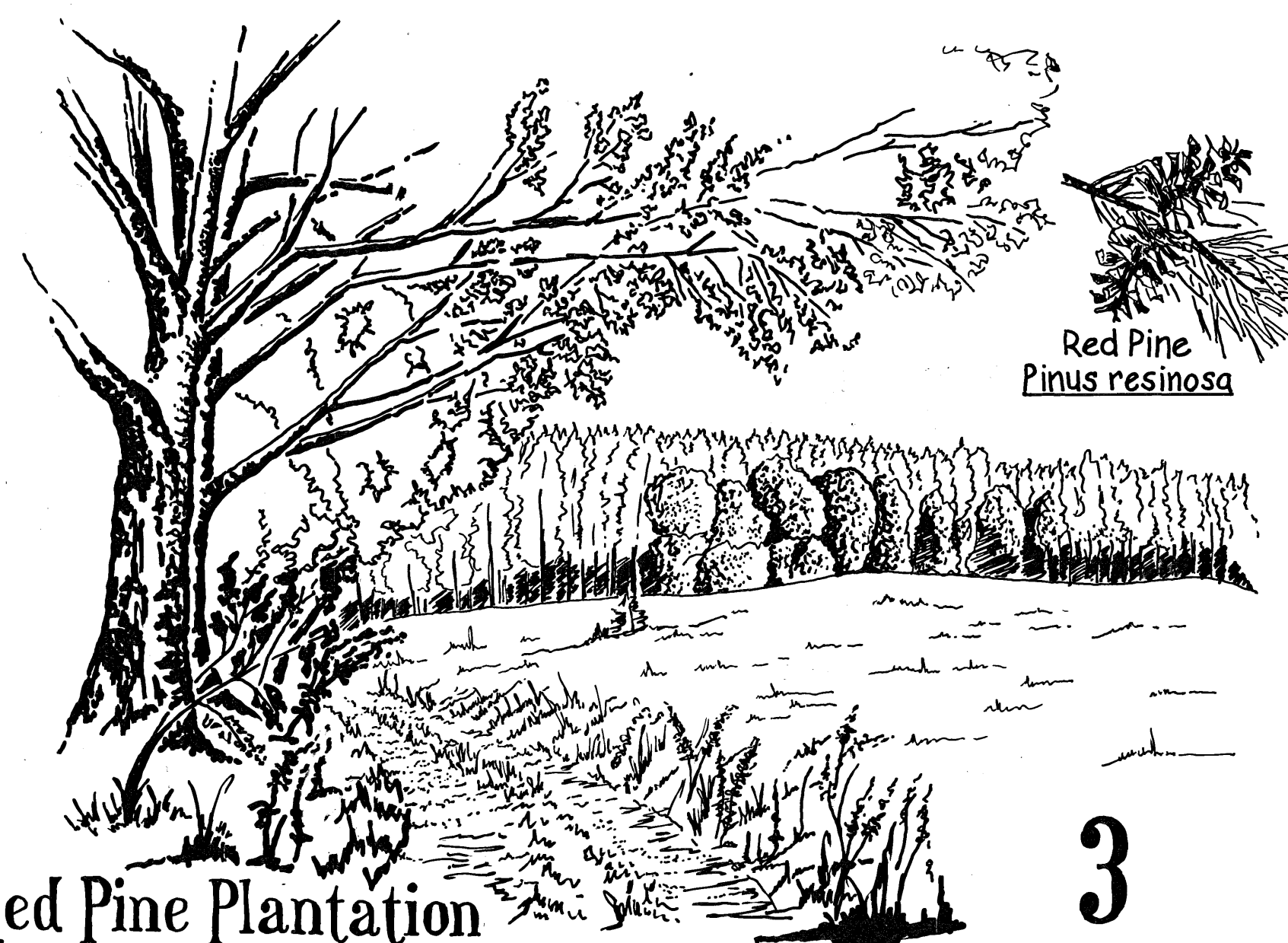
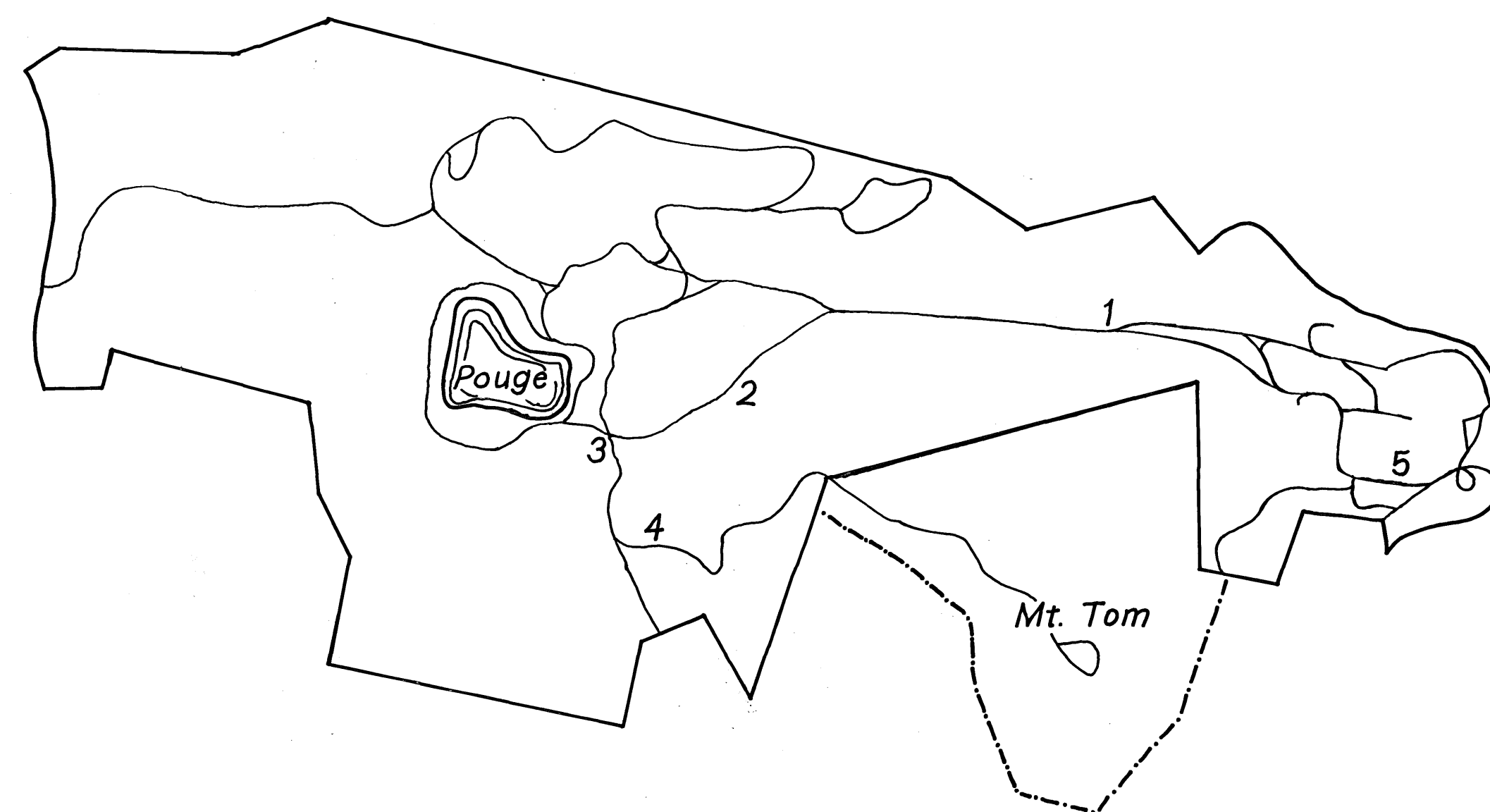


Hemlock Forest

As the carriage road approaches the Pogue Stream, moisture-loving Eastern Hemlock dominates the landscape. The thick forest canopy allows little light to break through to the forest floor, limiting the growth of ground cover and creating a more open understory.

FOREST EXPERIENCE

Marsh-Billings-Rockefeller National Historical Park contains a diverse array of managed and natural landscapes that surround the carriage roads with seasonally varying scenic delights. The constantly changing views reveal a range of historic practices and ecological associations. Stone walls and old fields bordered by Sugar Maples recall the area's agricultural heritage. The legacy of Frederick Billings' pioneering scientific forestry efforts can be seen in the large stands of carefully selected trees that have grown to maturity on the flanks of Mount Tom. Natural forest succession has filled in much of the land between Billings' plantations with mixed hardwoods and other native species.



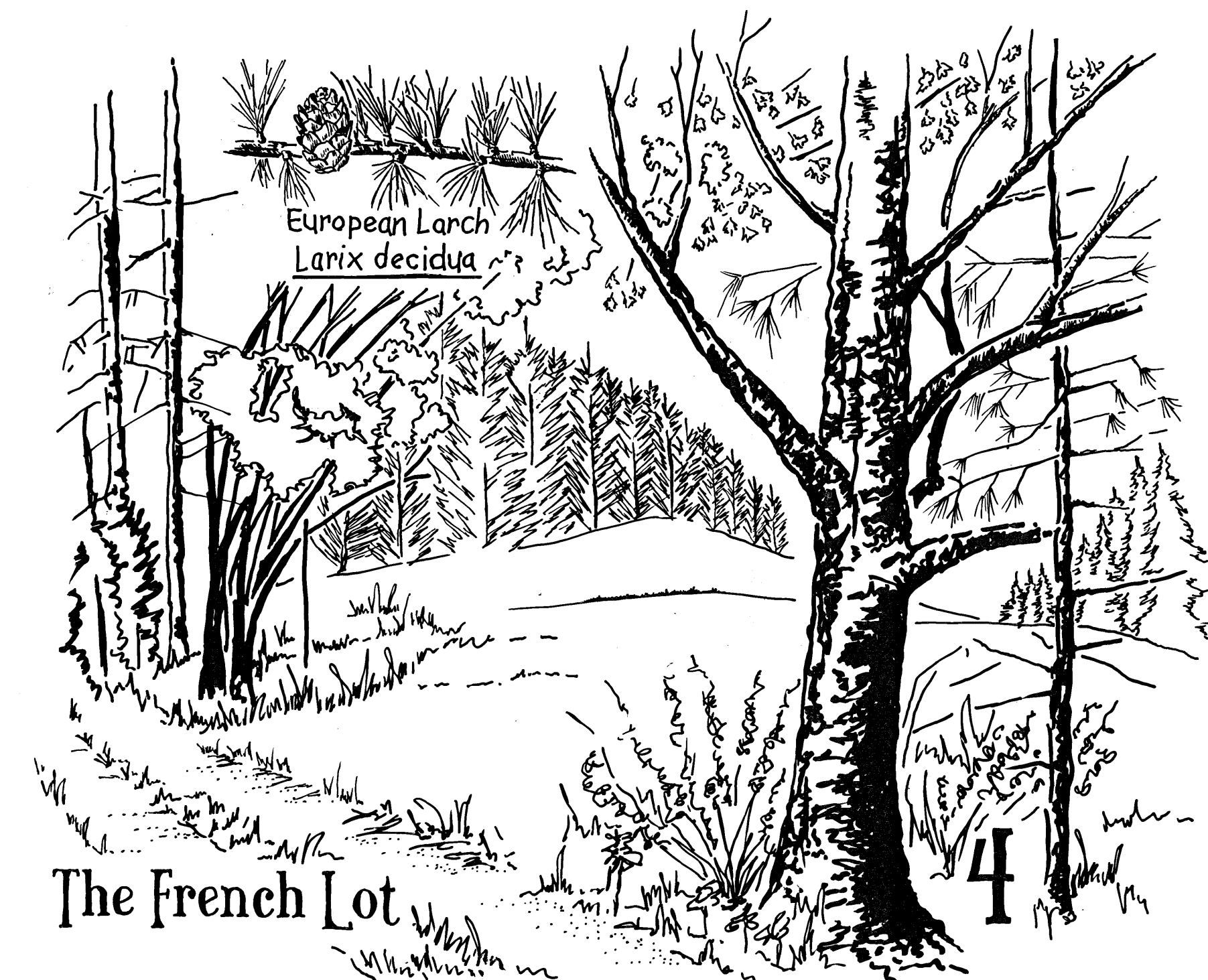
Red Pine Plantation

Entering the Elm Lot on the road to Mount Tom, the carriage road provides views of a large Red Pine plantation to the southwest. The thick growth of pine offers a stark contrast to the open hayfields. In autumn, their dark greenery complements the blazing fall foliage. In winter, these evergreens stand out against the leafless hardwoods.



Early Norway Spruce Plantings

Leaving the mansion and traveling past the Belvedere, the carriage road passes through ornamental plantings of Norway Spruce and Eastern Hemlock. Landscape gardener Robert Morris Copeland recommended these picturesque conifers as ideal choices for creating a romantic landscape effect.

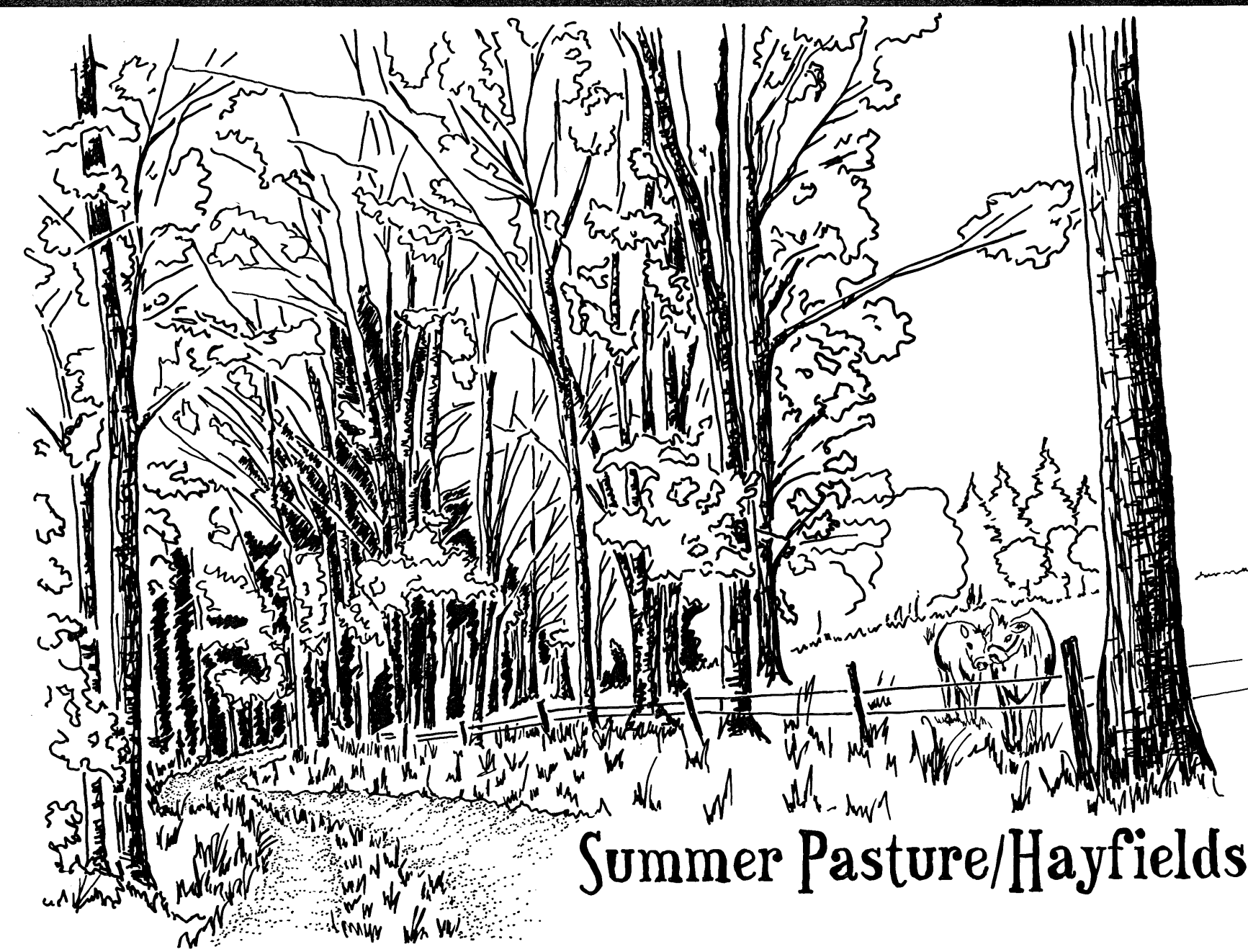


The French Lot

Stately Sugar Maples parallel the carriage road as it runs along the edge of old fields, serving as reminders of earlier farming activities. Plantings of European Larch border the hayfield on the east, while a stand of Norway Spruce borders it on the west, framing the vista beyond.

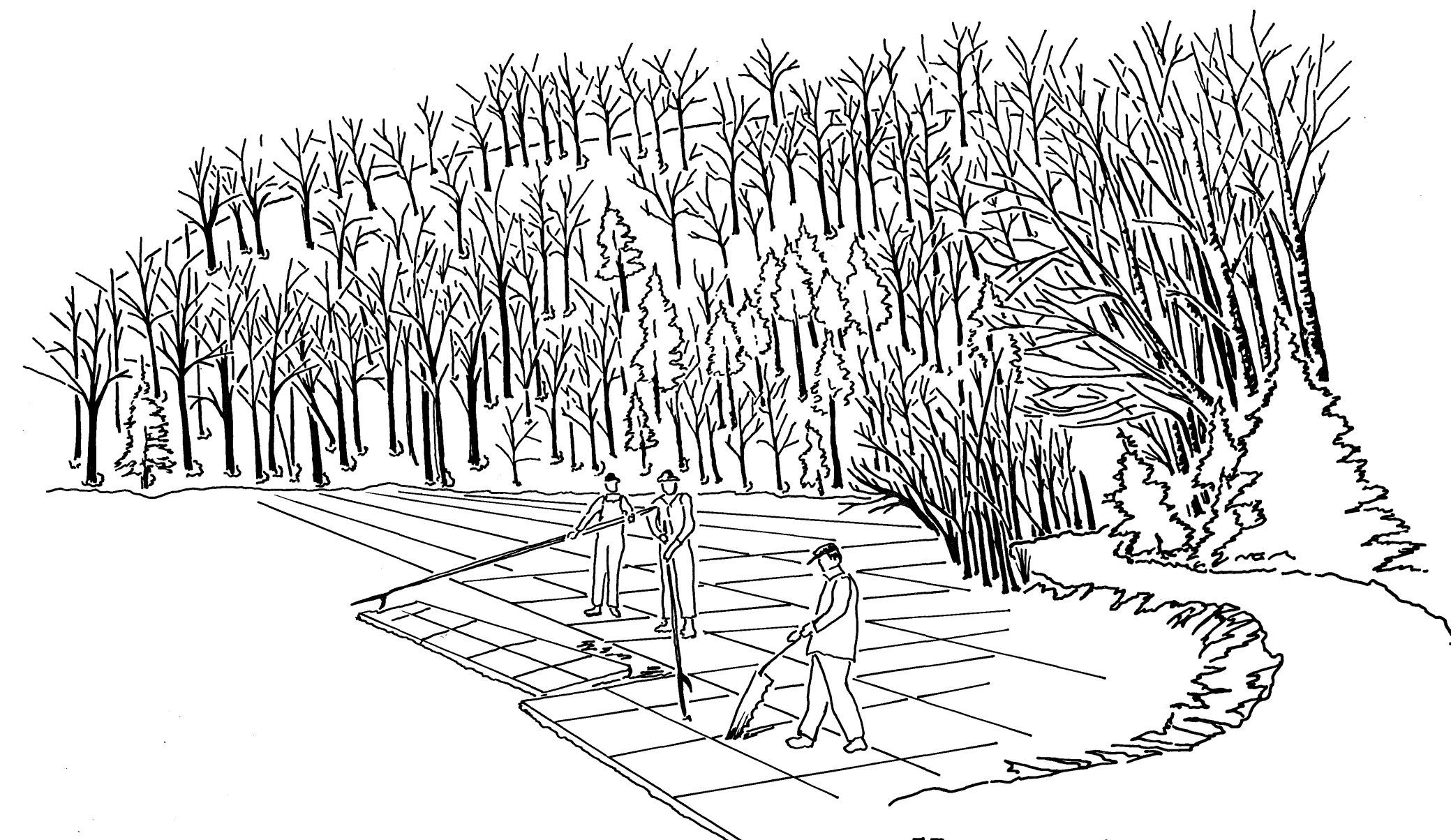
A WORKING LANDSCAPE

The Mount Tom carriage road system was designed for work as well as for pleasure. The elaborate road network was a vital component of the working landscape of Fredrick Billings' model farm and forest. The main carriage drives served as primary hauling routes, while a number of lesser roads and impermanent traces facilitated a wide range of farming and forestry activities.

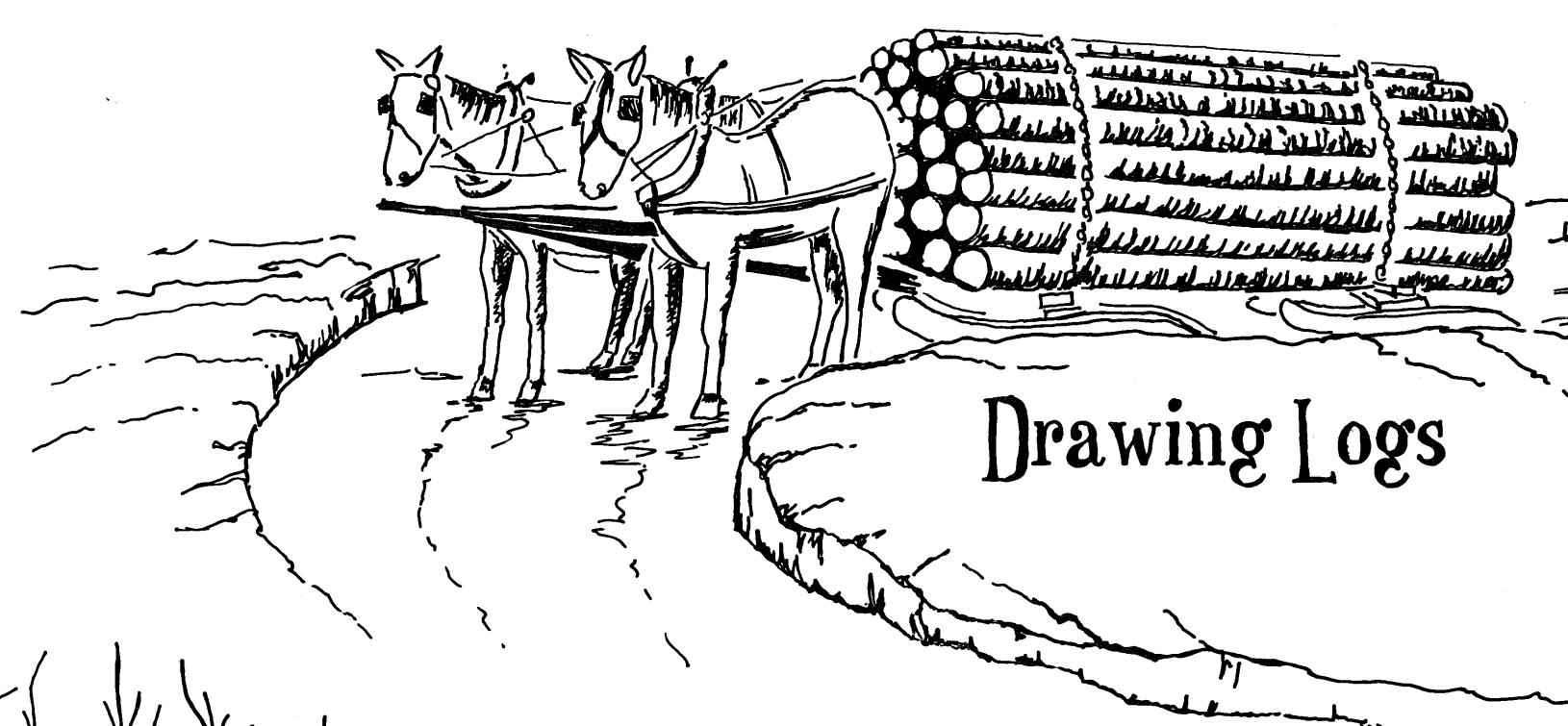


Summer Pasture/Hayfields

In summer and fall, farm work focused on the low-lying fields and livestock areas. Work on the mountain consisted of mowing pastures, building and maintaining roads, trimming trees, and clearing brush along roadsides.

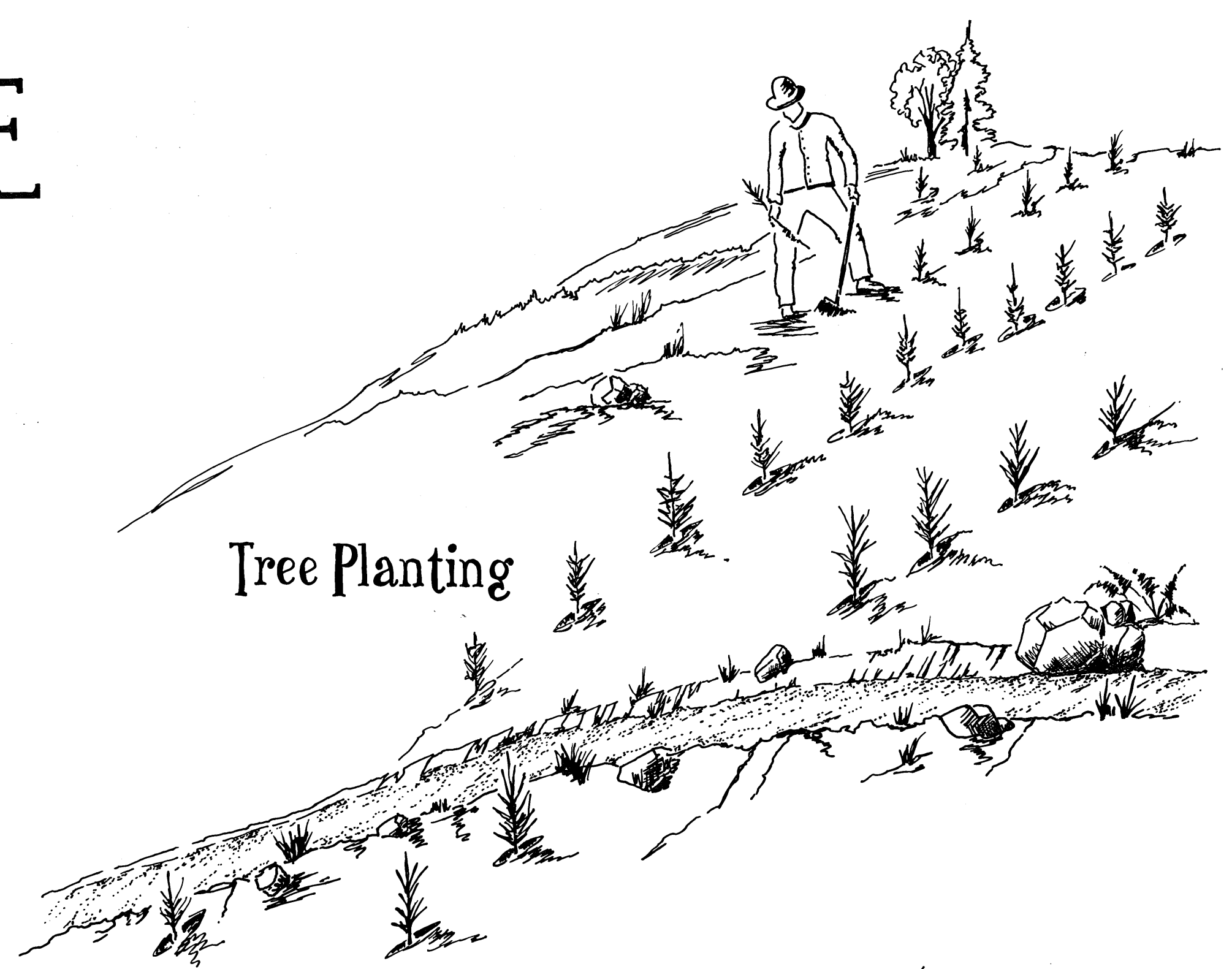


Harvesting Ice



Drawing Logs

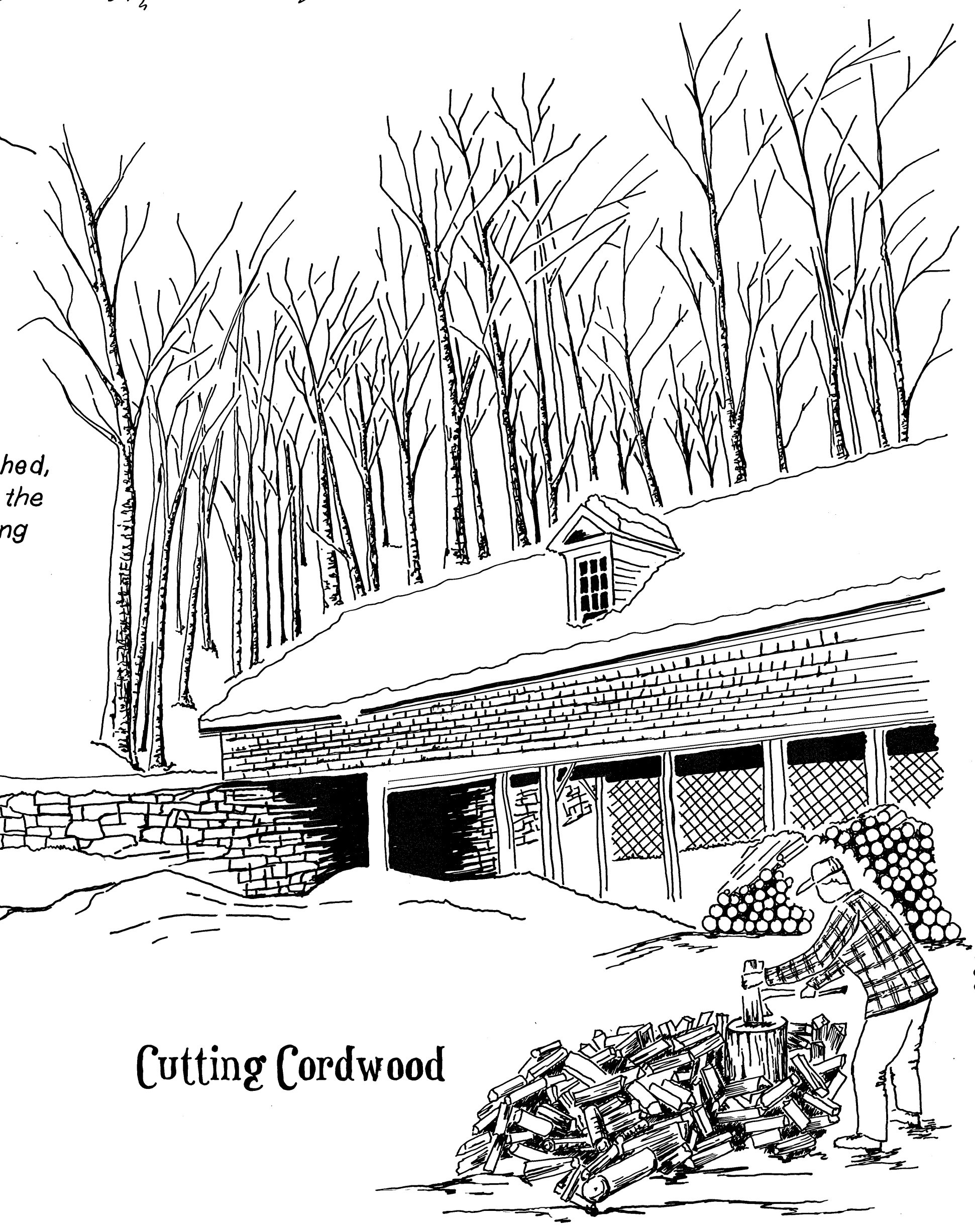
In winter, logs were cut from the forest and hauled to the woodshed, where they were sawn into cordwood. Ice was harvested from the Pogue. The sugaring generally began in early March. Tree planting got underway with the arrival of spring, usually in April or May.



Tree Planting

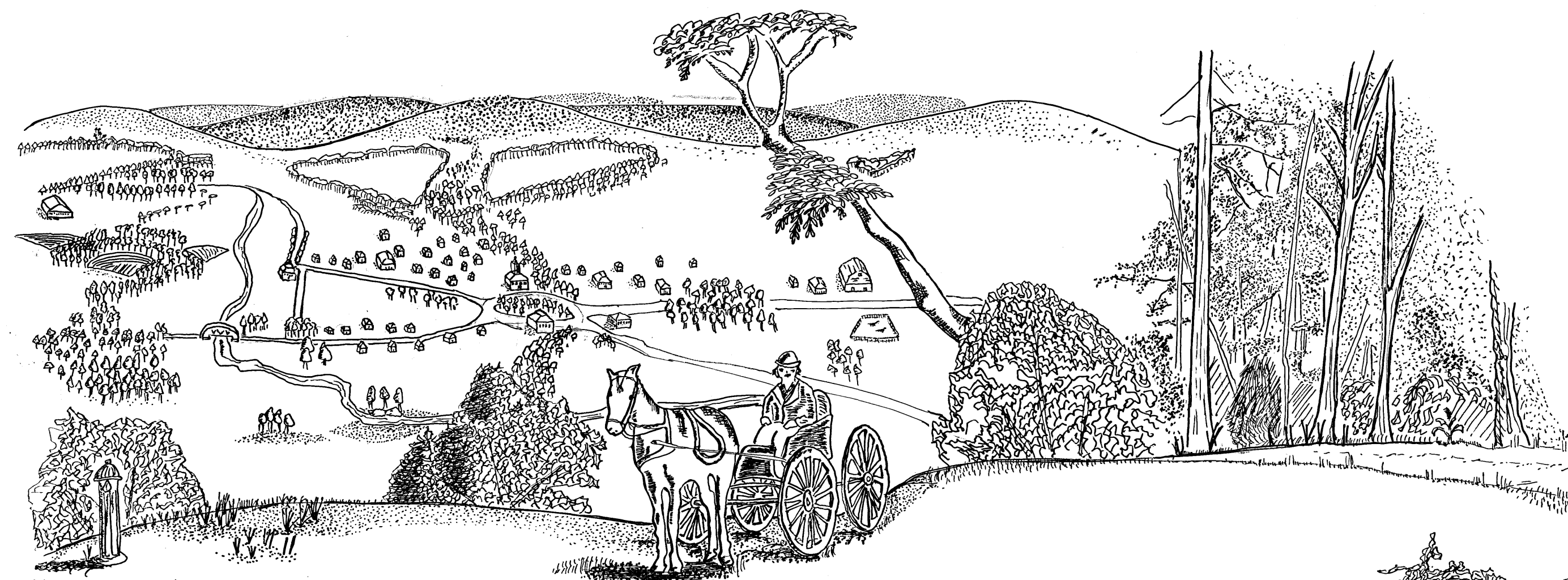


Sugaring



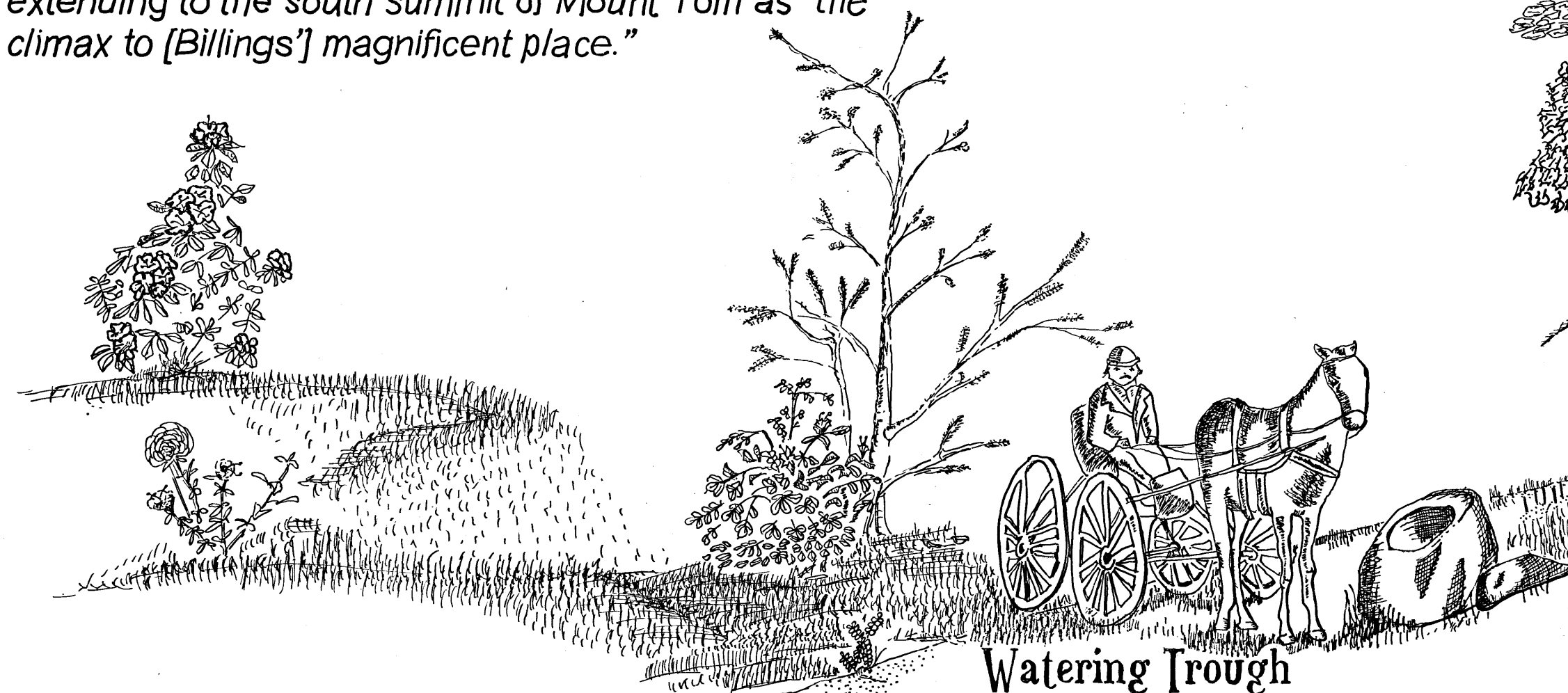
Cutting Cordwood

A PICTURESQUE CARRIAGE DRIVE



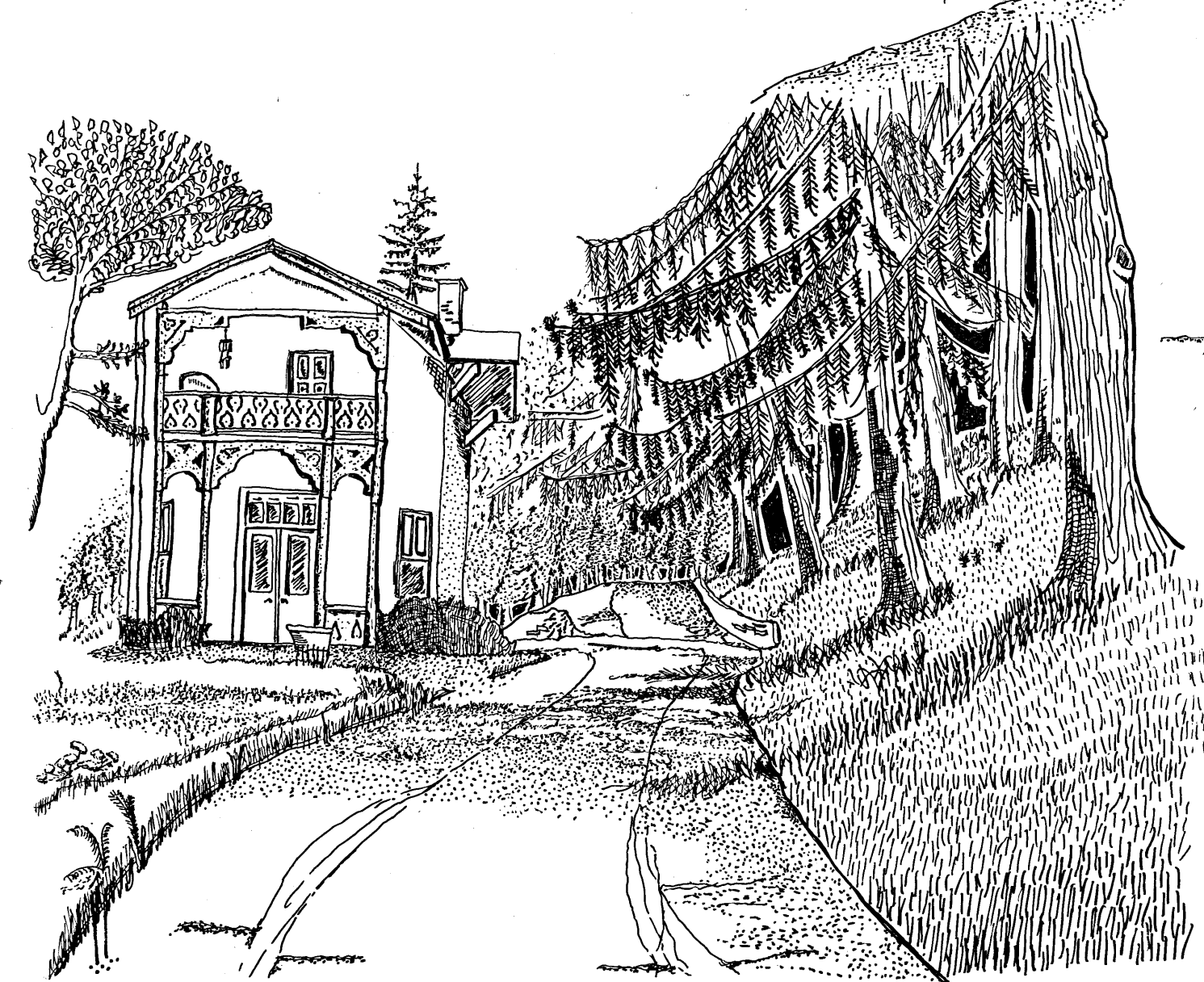
Mount Tom

The Vermont Standard lauded the 1887 Summit Drive extending to the south summit of Mount Tom as "the climax to [Billings'] magnificent place."



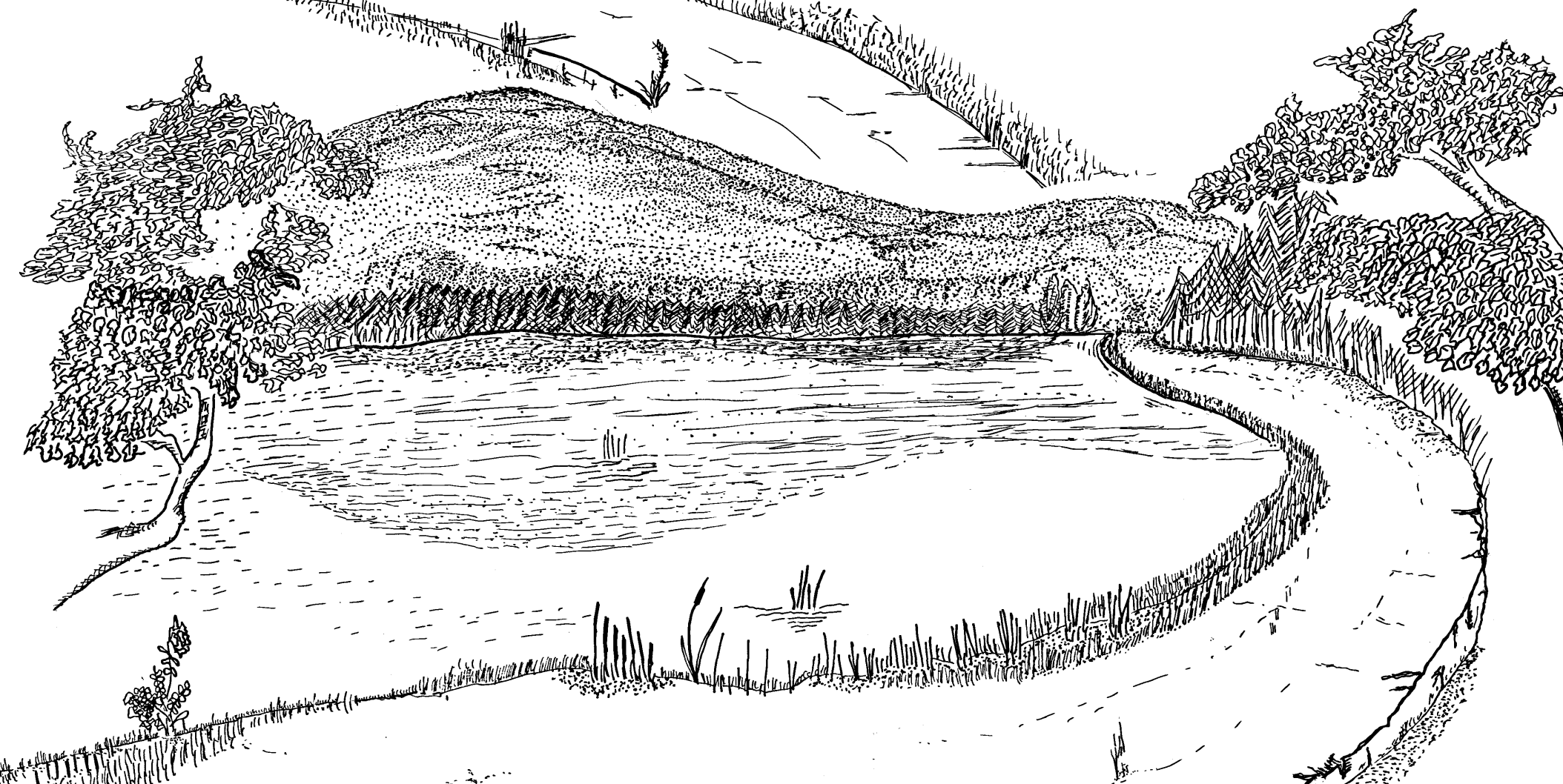
Watering Trough

Carved stone watering troughs provided welcome refreshment for horses on their uphill climb.



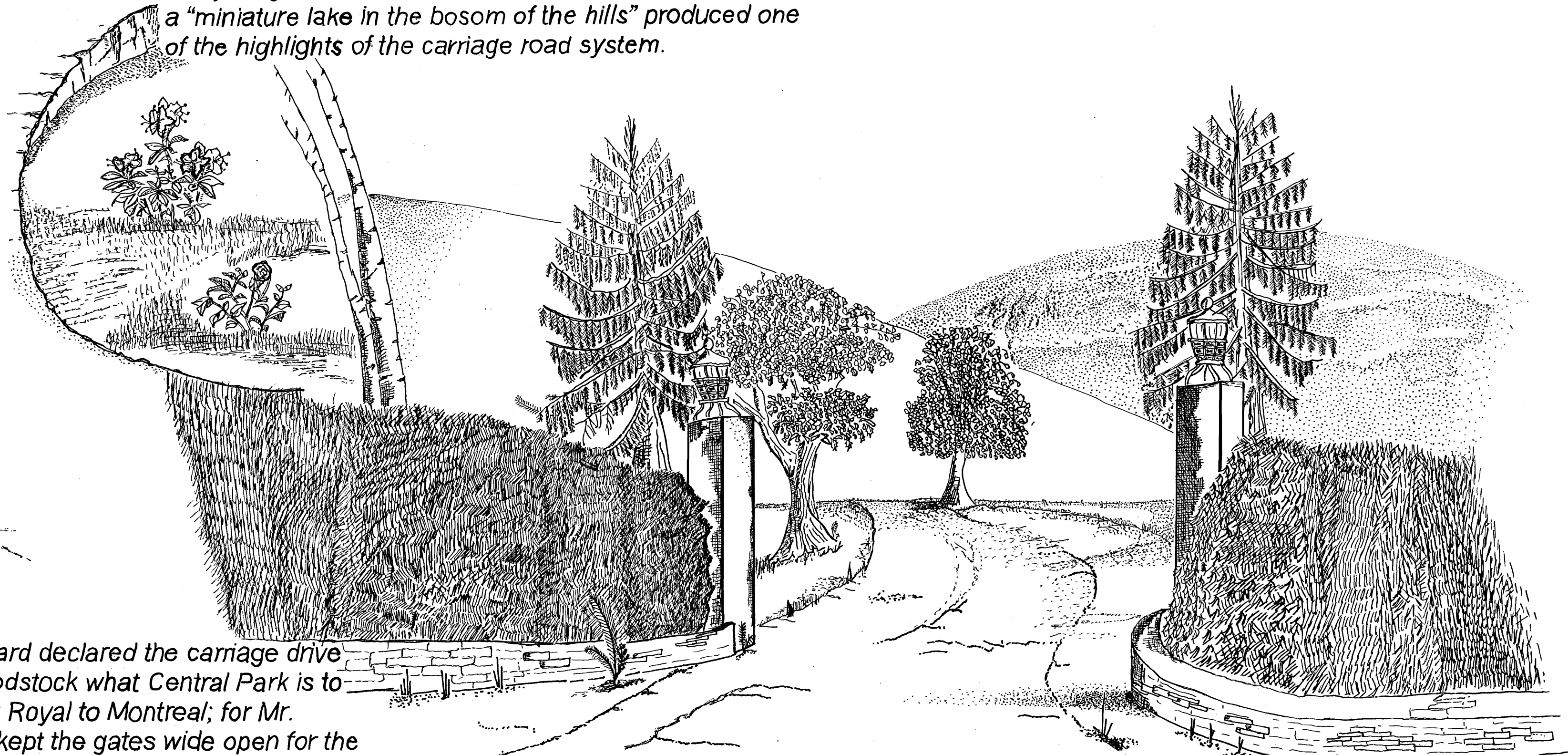
The Belvedere

The Belvedere and hanging boughs of the Norway spruce provide a classically picturesque landscape experience.



The Pogue Loop

The transformation of the Pogue from a "quaking bog and swamp hole of untold depth which swallowed everything that came within its reach without remorse" to a "miniature lake in the bosom of the hills" produced one of the highlights of the carriage road system.

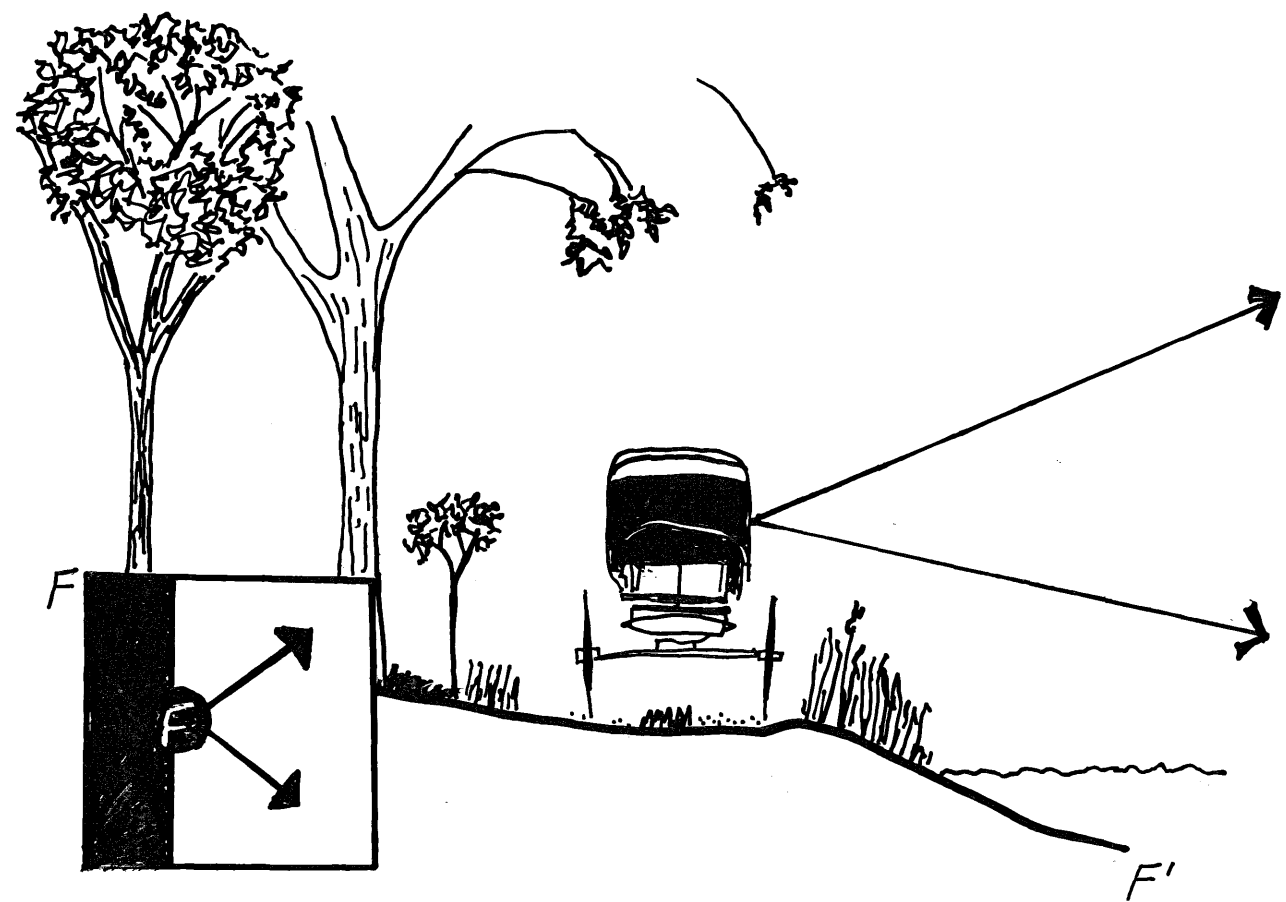


Main Entrance

The Vermont Standard declared the carriage drive system was "to Woodstock what Central Park is to New York, or Mount Royal to Montreal; for Mr. Billings has always kept the gates wide open for the public to enjoy with him these beautiful drives"

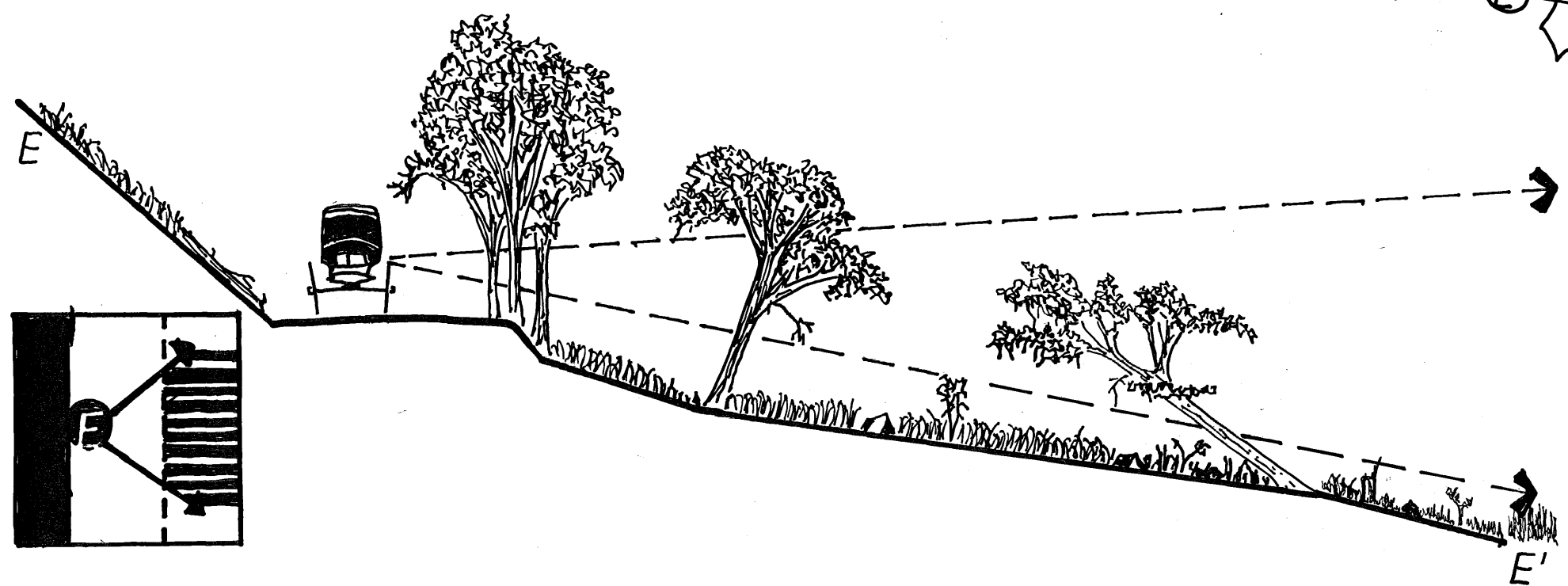
Carriage driving in search of attractive views was a popular nineteenth-century pastime. The ideal carriage drive displayed both gently humanized landscapes and wild natural scenery. Landscape gardener Robert Morris Copeland, who helped design the mansion grounds, called for a stimulating mixture of scenery, from sunny fields to shady groves and thrilling hilltop vistas. All these sensations could be experienced along the Mount Tom carriage roads, which are embellished with attractive water features and charming rustic bridges, culverts, and watering troughs. Many of these original features can still be seen today.

THE POGUE LOOP



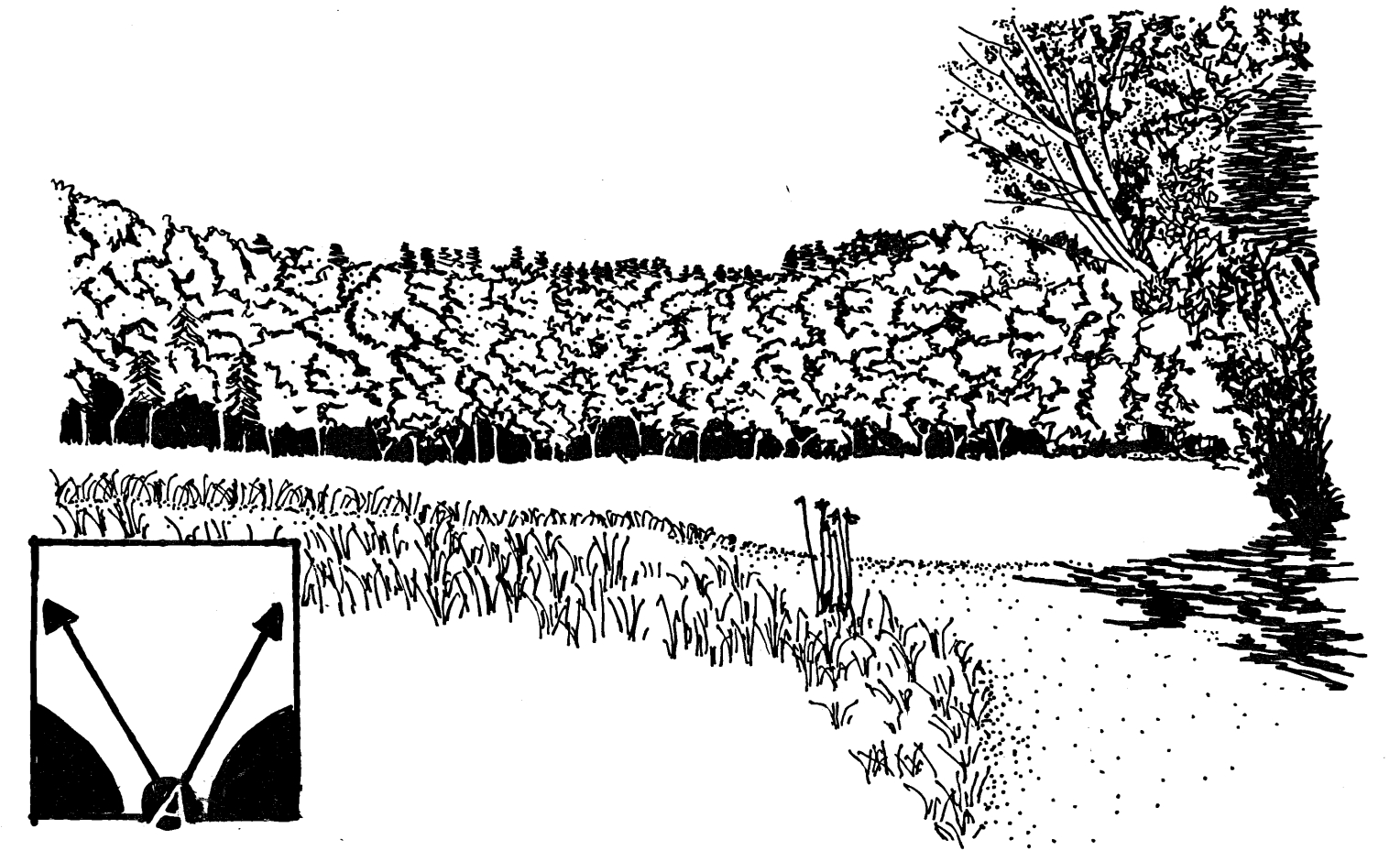
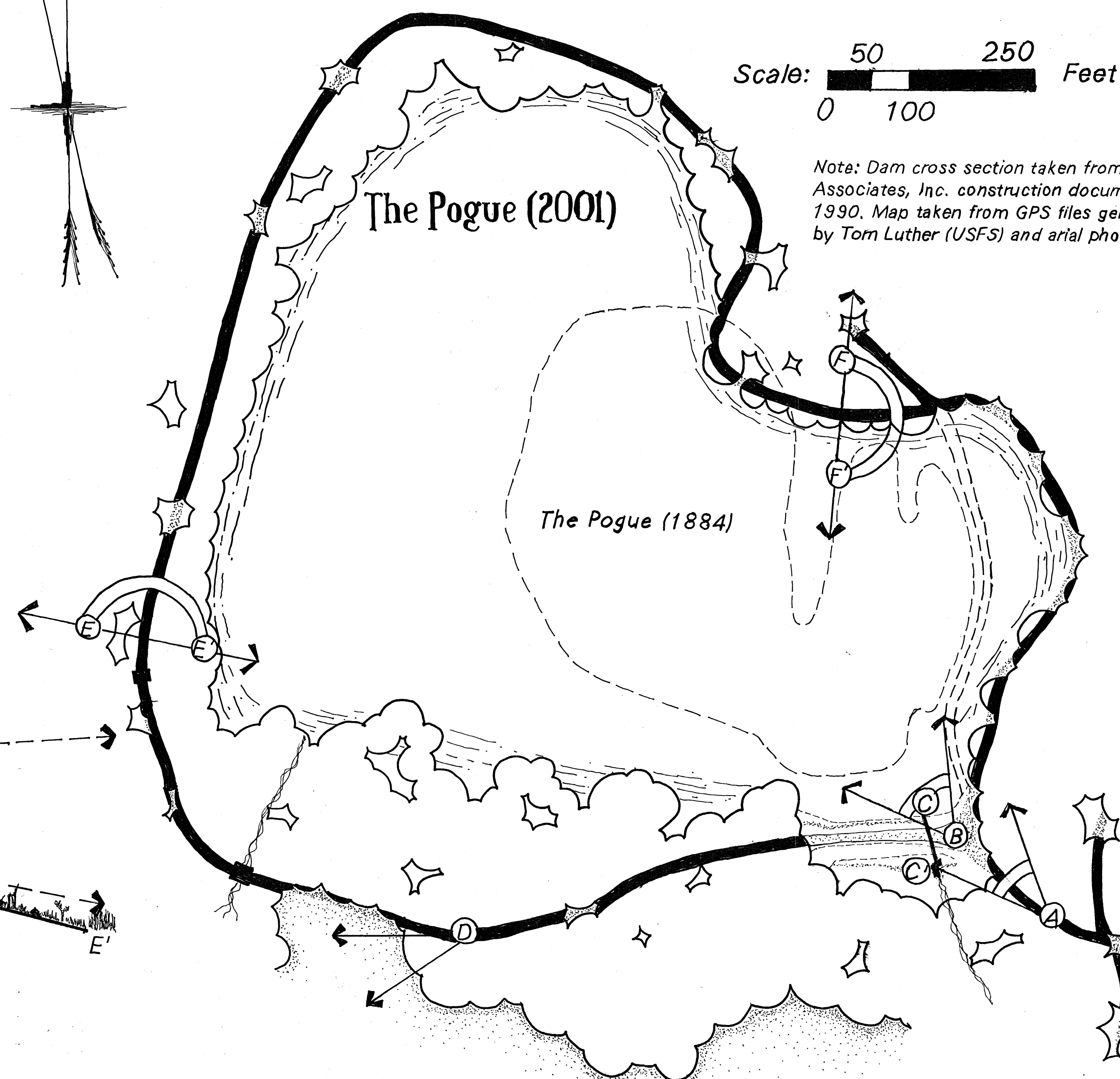
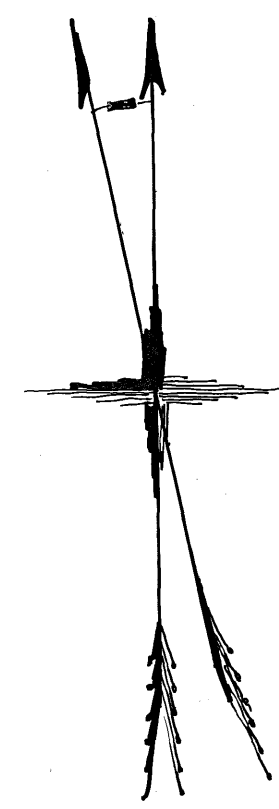
Cross Sections

Standing at point e (cross-section, below), there are more than 100 feet of trees and brush between the road and the water's edge affording only filtered views of the Pogue through Sugar Maple (*Acer saccharum*) and Yellow Birch (*Betula alleghaniensis*). This view is characteristic of the views along the east side of the carriage road. After passing the intersection at the northwest corner of the Pogue, the carriage loop comes to within five feet of the water, offering expansive views of the entire lake similar to the one at point f (cross-section, above).



Elm Lot

Heading clockwise around the Pogue from the dam, the road veers away from the water's edge, eventually masking the view to the right entirely. At point d (left), the road emerges out of the forest and into the Elm Lot. This transition provides a stark visual contrast between the dark cover of the forest and the bright open space created by the pasture.



Evolution of the Pogue

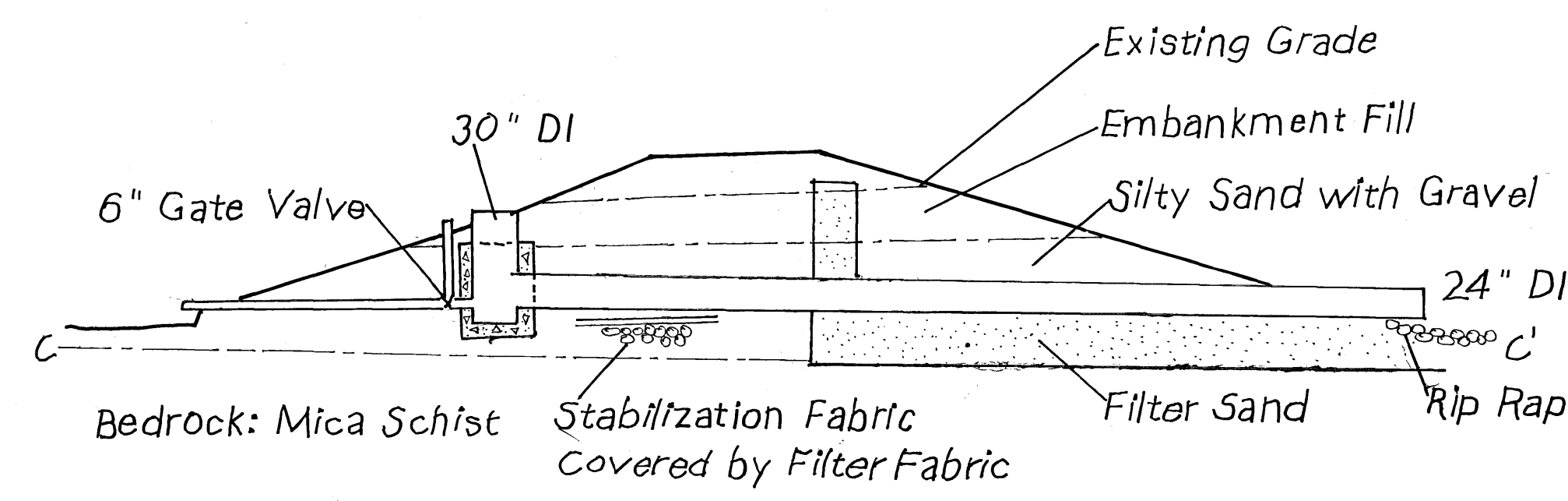
Since construction was completed in 1895, the Pogue has been a popular destination for its scenic, recreational and productive qualities. The Pogue lies in the southwest corner of what was once the Dana farm, a property acquired by Frederick Billings in 1884. In 1890, Billings began construction on a carriage loop around the Pogue. It was not until 1895, however, that the lake was enlarged to fit into the 14 acre plot defined by the road. This order of construction suggests the Pogue is a designed feature in the landscape. The sequence of views the design created can still be seen while travelling clockwise around the pond.

Approach to the Pogue

Approaching the Pogue along the main carriage road creates a sense of anticipation and surprise. As one reaches point a (below), an opening in the forest canopy can be seen ahead, but nothing more. It is not until reaching point b (above) that one reaches the opening to see the water of the Pogue.

Pogue Dam

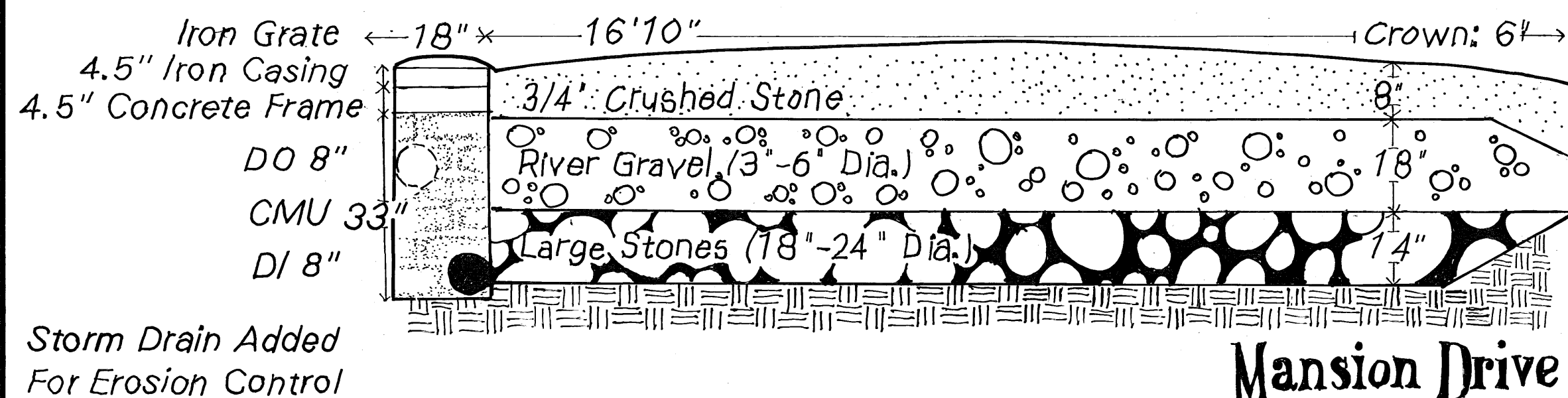
In 1895, the Pogue was enlarged with the construction of a dam (c, left) under the southwest section of the carriage loop. Since construction, however, various recurring problems have appeared, including annual flooding in the winter and excessive erosion along the banks of Pogue Hole Brook year-round. In 1991, the dam was rebuilt (shown at left) to address these problems.



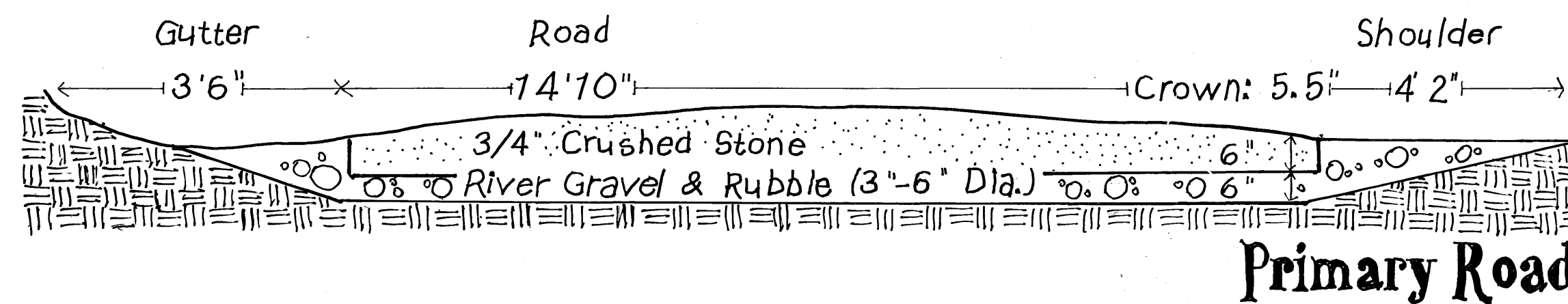
ROAD ANATOMY

Road Types

Scale: 0 1 5 10 Feet

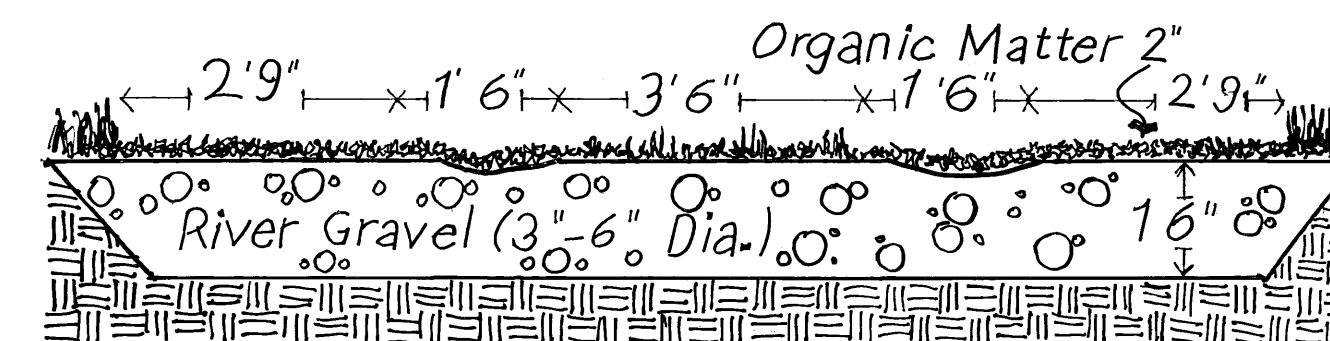
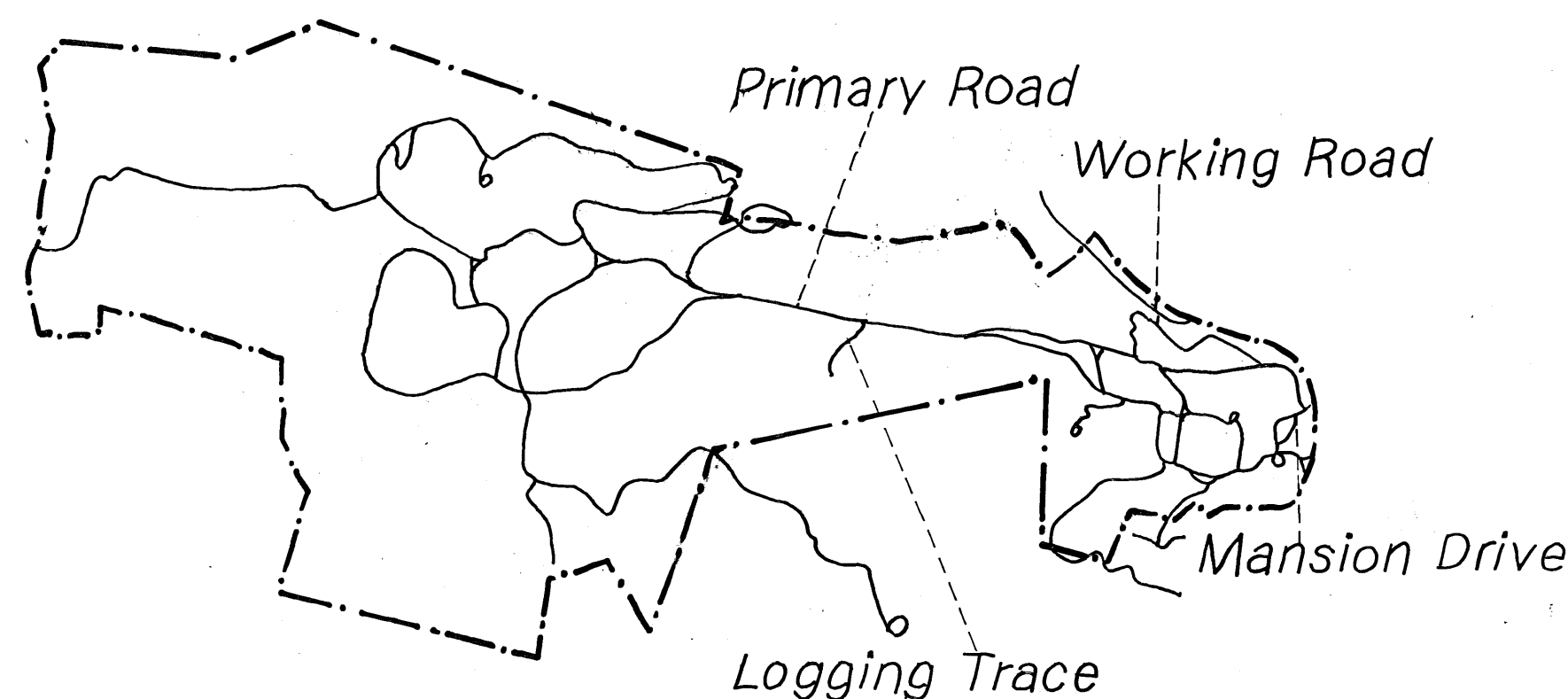


Mansion Drive

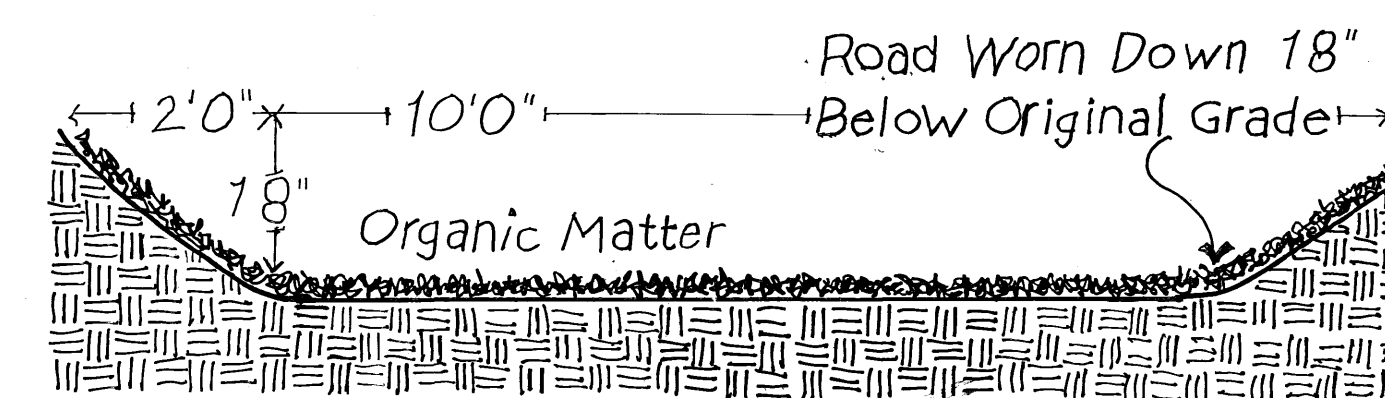


Primary Road

The majority of the roads of the park fit into one of four construction types. The Mansion Drive was once the grand entrance to the estate and is the most elaborate. The Primary Roads comprise today's most heavily trafficked roads in the forest and therefore require the most maintenance. The Working Roads had a deep sub-grade to handle the heavy machinery that traveled them. The Logging Traces are unimproved trails that were only used during logging season and now serve as cross country ski trails.



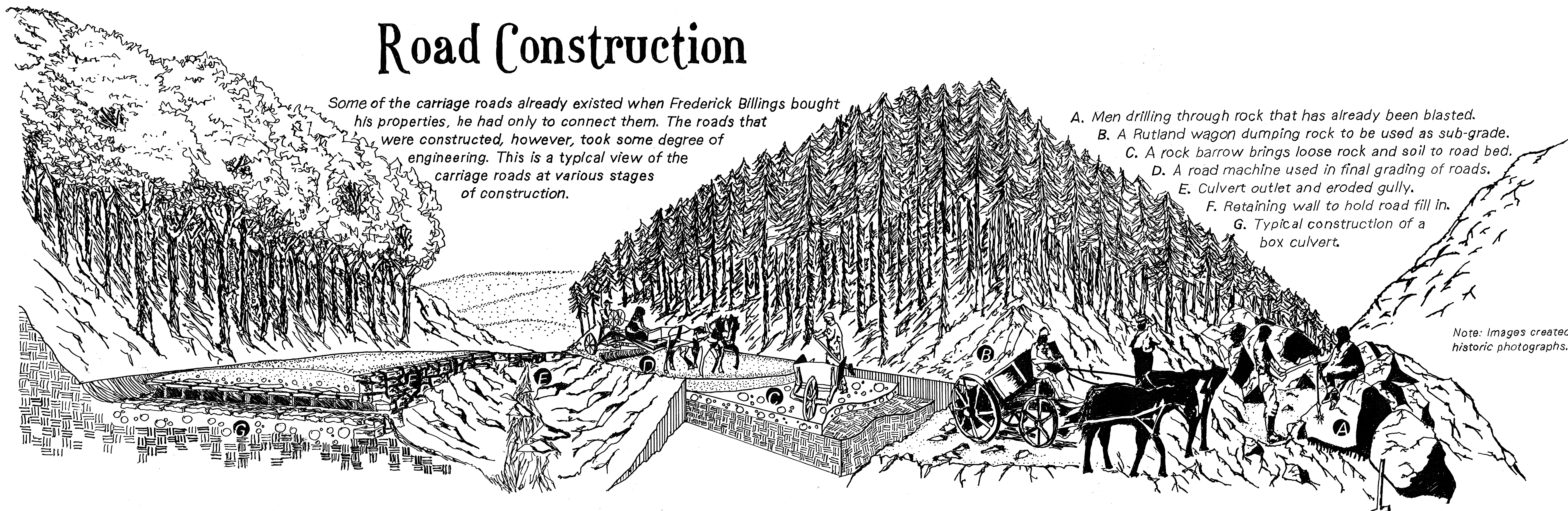
Working Road



Logging Trace

Road Construction

Some of the carriage roads already existed when Frederick Billings bought his properties, he had only to connect them. The roads that were constructed, however, took some degree of engineering. This is a typical view of the carriage roads at various stages of construction.



- A. Men drilling through rock that has already been blasted.
- B. A Rutland wagon dumping rock to be used as sub-grade.
- C. A rock barrow brings loose rock and soil to road bed.
- D. A road machine used in final grading of roads.
- E. Culvert outlet and eroded gully.
- F. Retaining wall to hold road fill in.
- G. Typical construction of a box culvert.

Note: Images created from historic photographs.

HISTORIC AMERICAN ENGINEERING RECORD

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Windsor County
Vermont

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David W. Haas, Photographer, August 2001.

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- VT-27-3 MANSION ENTRY DRIVE TOWARD ROUTE 12 WITH GATE POSTS.
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- VT-27-4 BILLINGS FARM AND BLAKE HILL FROM MANSION PORCH. VIEW E.
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- VT-27-8 GABLE ENTRANCE OF WOODSHED. VIEW NW.
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All color xerographic copies were made from a duplicate color transparency.

David W. Haas, Photographer, August 2001.

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HMSL NO VT-27-2



HER. NOV-21-3





HAB. No. 07-21-8



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Mass. No. VP-27-11





HOSEA NO VT-27-12











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MASS. NO. VT-22-19





HALE NO. 11-21



1182. No VT-21-22





FOREST
STEWARDSHIP
DEMONSTRATION SITE



The forest canopy has been thinned to enhance the health and growth of selected trees. Known as Crop Tree Management, this technique can be used to improve wildlife habitat, forest aesthetics, recreational opportunities and the quality and value of wood products.

Marsh-Billings-Rockefeller National Historical Park
in partnership with
U.S.D.A. Forest Service, Northeastern Area, State & Private Forestry





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NAE No VT-27-31



MASS NO VT-27-32



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HAAC NOV-21-27





H&R NOV-27-89





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HASR NO VT-27-49

