Black Rock's Hidden Past:

A History of Land Use Practices Prior to the Creation of Black Rock Forest

by

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PART I: INTRODUCTION

THE BIRTH OF BLACK ROCK FOREST

In many respects, the seeds of Black Rock Forest were sown when banker James Stillman moved to the Hudson Highlands in 1885. Like many of his wealthy business associates, including William Rockefeller, Edward Harriman, and J.P. Morgan, Stillman desired to build a family estate along the banks of the Hudson River. At first he attempted to settle in the exclusive community of Tuxedo Park. However after being snubbed by that society's upper crust, who regarded him as nouveau riche, Stillman decided to create his own elite development in the nearby town of Cornwall, where he had attended boarding school as a boy. There he purchased a large tract of land on Storm King Mountain which he hoped to transform into a country compound for his family and friends.¹

James Stillman never realized this dream. Upon his death in 1918 the property around Storm King remained undeveloped and reverted to his youngest son, Ernest, who was then practicing medicine in the village of Cornwall. Although not yet built upon, the Stillman land was nevertheless in a ruinous state. Like most of the Highland forests during the early twentieth century, the property had been cutover numerous times and its timber used as fuel for both nearby iron furnaces and brick kilns. James Stillman, for instance, had often leased the wood rights to his property to local woodcutters. Yet whereas the elder Stillman had bought the Storm King property in an age of industrial capitalism, his son inherited it during the Progressive era, a time when reformers such as Theodore Roosevelt began challenging the unregulated practices of big business.

It was the progressive ideas of Gifford Pinchot, the first American to be trained as a professional forester, that most influenced Ernest Stillman and thus the creation of Black Rock Forest. As Roosevelt's Chief Forester in the Department of Agriculture and founder of the United States Forest Service, Pinchot took a long-term view of the country's natural resources and promoted a conservation ethic that came to be known as "wise use." According to this school of thought, the country's resources — especially its timber reserves — should be used in an efficient manner that best promoted "the greatest good of the greatest number for the longest time." Ernest Stillman first became exposed to this conservation philosophy in 1926, while walking over his Cornwall property with Richard Thornton Fisher, director of the renowned Harvard Forest in Petersham, Massachusetts. It was Fisher who recommended that Stillman establish a demonstration forest in order to put Pinchot's philosophy into practice. Two years later, Ernest Stillman created Black Rock.

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¹ Frances Dunwell, *The Hudson River Highlands* (New York: Columbia University Press, 1991), 123.

² George Trow, "Annals of Discourse: The Harvard Black Rock Forest," *The New Yorker*, (11 June 1984), 49.

³ Roderick Nash, Wilderness and the American Mind (New Haven: Yale University Press, 1967), 130.

⁴ Trow, "Annals of Discourse," 65.

Thus instead of fulfilling his father's dream of constructing an elite Hudson River settlement, Ernest Stillman decided to nurse the deforested land back to health, much as he had always nursed his local patients. As Black Rock's first bulletin stated in 1930, the forest was to function as a "laboratory for research in problems of forest management and for the demonstration of successful methods in practice." To help accomplish this, Stillman expanded the original parcel of land to encompass more than 3,800 contiguous acres, personally funded numerous scientific experiments within the forest, and saw to its longevity by endowing Black Rock after his death in 1949 and willing it to his alma mater, Harvard University. Harvard maintained the forest, along with its more famous counterpart in Petersham, until 1989 when the University decided to sell Black Rock. In an effort to stop it from being developed a consortium of scientific and educational institutions in the New York City area, which includes the American Museum of Natural History, Columbia and New York University, and the New York Academy of Sciences, bought Black Rock and continue to perform scientific research in the forest today.

REASON FOR PRESENT STUDY

Since Ernest Stillman founded Black Rock Forest in 1928, its scientists have undertaken numerous experiments that have greatly expanded our understanding of the ecology of the Hudson Highland region. These very same scientists, however, have also noted a serious gap in our knowledge, a gap which they argue has far-reaching implications for past, present, and future scientific research at Black Rock Forest. "The history of the human exploitation of natural resources in the Black Rock Forest region is at once complex and obscure," wrote Black Rock forester Hugh Raup in 1938. "A proper evaluation of it must be the subject of special research, and is extremely desirable." It is the goal of this paper to provide such an evaluation. By investigating the history of land-use, and abuse, in the Cornwall area prior to the forest's founding, this study will provide Black Rock scientists with the necessary historical context upon which to base both their interpretations of past scientific analysis, as well as their future experiments. "

Along with aiding contemporary scientific research, a history of land-use in the Black Rock region will also help promote the preservation of the forest itself by educating the public on the region's unique past. Although today Black Rock Forest appears to have had a limited role in the human history of the Hudson Highland region, such a view is dangerously deceptive. The stone foundations crumbling throughout the preserve, for example, indicate that hidden behind years of forest regrowth lies the story of a vibrant and varied rural economy based on farms, orchards, woodlots, and pasturage, each of which represent an altering of the local environment. This rich and unique history, which has remained unwritten since Raup's proclamation of nearly sixty years ago, can be a powerful weapon in the fight to protect the forest. By educating the public on the historic importance of this region, Black Rock Forest will become that much more worthy of preservation.

⁵ as quoted in Trow, "Annals of Discourse," 54.

⁶ Hugh Raup, "Botanical Studies in the Black Rock Forest," *Black Rock Forest Bulletin No.* 7 (Cornwall-on-Hudson, New York: 1938), 69.

SCOPE OF PRESENT STUDY

This study is divided into three parts. Whereas Part I has included a brief overview of the founding of the forest and the rational for this project, Parts II and III will be more historical in approach. Part II will examine the human history of Black Rock Forest from its first permanent settlement by whites during the early nineteenth century to the founding of the forest by Ernest Stillman in 1928. It will focus on the land-use practices of the local inhabitants as a whole, and how these practices evolved over time. Such an approach, I believe, will uncover the various layers of human interaction with the local environment, each of which shaped the landscape and ecology of Black Rock Forest. Part III involves a more specific examination of all of the seventeen known homesteads within Black Rock prior to the creation of the forest. Here I have included detailed maps of each of these properties, as well as descriptions of how these parcels were used by their individual owners. By combining the more general description of Part II with the more detailed analysis of Part III, scientists working in Black Rock, along with those simply visiting it for pleasure, will be able to place the region as a whole into its historic context while better understanding the varied land-use patterns within the forest itself.

PART II: HISTORY OF LAND-USE PRIOR TO BLACK ROCK FOREST

GEOLOGY'S INFLUENCE ON EARLY BLACK ROCK LAND-USE

When Henry Hudson became the first European to sail up the Hudson River in 1609, he anchored his ship, the Half Moon, near what is today the town of Cornwall-on-Hudson. It was here, while looking out over the flat table-land along the western bank of the river, that Hudson's diarist, Robert Juet, praised the land as "a very pleasant place to build a Towne on [sic]." In many respects Juet's assessment was correct. The Highland terrace along the river was both fertile and endowed with numerous natural meadows upon which farms could be built. Indeed it was only seventy-five years after Juet penned these words that the first permanent settler arrived in 1684. Others quickly followed, with Dutch, English, and Scotch families predominating. In March of 1788 these early settlers followed Juet's suggestion, and incorporated the town of Cornwall.

Although historians have often cited it when describing the history of Cornwall during the colonial period, Juet's statement failed to accurately reflect the situation one mile farther inland, where the mountains of Black Rock Forest, along with the rest of the Hudson Highlands, rise up from the table-land along the riverbank. Here different geological forces were at work, ones that would lead to different settlement patterns and thus unique land-use practices. According to the most recent theory, the Highlands were uplifted along with the entire Appalachian chain during the Precambrian Era, when two tectonic plates underlying the Atlantic Ocean and the North American mainland gradually collided. As a result Black Rock Forest contains steep-sided valleys running northeast to southwest and mountains such as Spy Rock whose elevation reaches 1,461 feet on its summit. The same geological forces also left the Highlands covered with a thin layer of rock-strewn soil which supported a forest dominated by oak and hickory.

With its precipitous topography and poor soils, it should come as no surprise that the Hudson Highlands were settled at a later date than the area spied by Juet from the deck of the Half Moon. In fact the Black Rock Forest region was one of the last areas in the Hudson Valley to be settled, developing nearly two hundred years after the colonial communities to the north and south. ¹⁰ More importantly, settlers living in the forest were forced to adapt to its unique geologic setting. Because the terrain was mountainous and less fertile, for instance, those residing in what would become Black Rock Forest found it difficult to farm and nearly impossible to rely on single-crop agriculture like New Yorkers in other areas of the state. Instead they developed their own

⁷ Lewis Beach, *Cornwall* (Newburgh, New York: E.M. Ruttenber & Son, Printers, 1873), 7.

⁸ For a description of Cornwall's earliest permanent settlers see Martha Schiff, *In Celebration of Cornwall: 200 Years* (Cornwall, New York: The News of the Highlands, Inc., 1976), 2. For information on the incorporation of the town of Cornwall see E.M. Ruttenber, *History of the County of Orange* (Newburgh, New York, 1875) 104.

⁹ Henry Tryon, "The Black Rock Forest," *Black Rock Forest Bulletin No. 1* (Cornwall-on-Hudson, New York: 1930), 11.

¹⁰ Dunwell, *The Hudson Highlands*, 10.

unique relationship to the local environment, creating a diversified economy based on a variety of land-use practices.

The remainder of this essay will examine these diverse land-use practices within the Black Rock Forest region and how such practices changed over time. Besides agriculture, specific attention will be paid to practices involving the domestication of animals, lumbering, small manufacturing, and at a later date, tourism. As Black Rock forester Henry Tryon explained in 1930, "it was a community where agriculture and dairying went hand in hand with the exploitation of various minor forest products." Such practices, so reliant on the local environment, also altered that environment.

CHANGING AGRICULTURAL PRACTICES IN BLACK ROCK FOREST

If a farmer living in what would become Black Rock Forest fell asleep in 1790 only to re-awaken in 1840, he, like Washington Irving's Rip Van Winkle, would be shocked by what he saw. Instead of the garden plots and small fields of corn and grain so central to his and his neighbors' way of life, this sleepy-eyed farmer would see an unfamiliar landscape dominated by apple and pear orchards and large fields of hay. Moreover, he would have snoozed right through an interim stage in this agricultural shift, for between 1790 and 1825 his fellow farmers in the Hudson Valley were busy plowing under their garden plots and small fields of corn and expanding their acreage in wheat. Thus upon awakening in 1840, this power-napping agriculturalist would have been oblivious to the three staged evolution in farming that had taken place during the previous fifty years (see Land-Use Time-Line).

Those conducting research at Black Rock Forest cannot afford to be as unaware. Although each successive stage in this agricultural development overlay that which preceded it, in a sense covering up the farming practices of earlier generations with new fields and different crops, each stage did in fact have a lasting impact on the environment of the forest. Knowledge of each stage in Black Rock's agricultural history, therefore, is of central importance to those conducting research today. (For settlement dates of individual farms within the forest, see Part III of this study).

Pioneering and Subsistence Agriculture: Pre-1790

Throughout its history, the land that would become Black Rock Forest was never intensively farmed. As has been noted above, this was primarily due to the forest's poor soil and steep topography, both of which limited the amount of land within the forest that could be cleared and placed under the plow. As Black Rock forester Hugh Raup explained in 1938, "the nature of the soil has determined the general pattern of land utilization and has permitted only small areas to be used for agriculture." ¹²

Along with its quality, however, the soil's location within the forest also shaped farming patterns. According to Black Rock scientists, for instance, "the good, black soils are generally

¹¹ Tryon, "The Black Rock Forest," 12.

¹² Raup, "Botanical Studies in the Black Rock Forest," 69.

limited to the valley bottoms and coves." ¹³ It is understandable, then, that the most intensively farmed regions within the forest are located in the gently rolling terrain stretching northwestward from the base of Black Rock's hills.

While the total acreage under the plow within Black Rock always remained small, never comprising more than nine percent or two-hundred and seventy of Black Rock's three-thousand acres, it was perhaps even smaller before 1790 than in later years. ¹⁴ This was not only due to the fact that population levels were lower during this earlier period, but also because of the type of farming being practiced at this time. While there is little information directly describing agricultural practices on farms within Black Rock itself, evidence concerning homesteads in nearby regions suggests a number of conclusions. As historical geographer John Thompson argues, "there was very little regional variation in the pioneer agriculture of New York." ¹⁵ Thus by examining land-use patterns on farms in the vicinity of Black Rock, one can better understand the agricultural practices on homesteads within the forest.

According to a number of local studies, most colonial farmers in the Black Rock region practiced some form of subsistence agriculture. Most maintained "a plot of wheat, another of corn, a patch of flax, a meager garden, perhaps a few fruit trees," according to Thompson. Historian David Cohen, who has also conducted a detailed analysis of pre-Revolutionary farms along the Hudson River, similarly suggests that although lands within Black Rock Forest were planted with diverse crops, they were nevertheless cultivated on a small scale. According to Cohen, Dutch farmers grew a wide variety of foodstuffs including rye, wheat, barley, snow peas, maize, pumpkins, tobacco, squash, flax, and hemp, to name just a few. Preserving no doubt allowed consumption of the entire crop at home.

Thus prior to 1790 the few permanent residents within what is today Black Rock Forest practiced a mixed form of subsistence agriculture on a limited number of acres. Farmers during this period grew a variety of vegetables in order to feed themselves, flax to clothe themselves, and small amounts of hay to nourish their farm animals. This practice, however, began to change during the 1790s. As we shall see, subsistence farming in the Hudson Highlands slowly gave way to a more commercial form of agriculture, first on a local level, and later in response to growing European demand and the growth of the metropolis at the mouth of the river.

Cash-Crop Grain Farming: 1790-1825

Whereas during colonial times the Hudson Valley was sprinkled primarily with subsistence farmers, by 1800 it, along with the Mohawk Valley, had become the "granary of the nation." This new emphasis on grain cultivation was especially pronounced in Orange County, in which Black Rock Forest is located. When examining this shift in agricultural output,

¹³ Tryon, "The Black Rock Forest," 11. Raup, "Botanical Studies in the Black Rock Forest," 6.

¹⁴ Tryon, "The Black Rock Forest," 15.

¹⁵ John Thompson, *Geography of New York State* (Syracuse: Syracuse University Press, 1966), 165.

¹⁶ Thompson, Geography of New York State, 165.

¹⁷ David Cohen, *The Dutch-American Farm* (New York: New York University Press, 1992), 112.

¹⁸ Thompson, Geography of New York State, 165.

however, it is important to refrain from viewing it as a dramatic turning point during which farmers suddenly stopped growing a diverse range of crops for home consumption and began cultivating cash crop surpluses for the commercial market. Instead, as David Cohen argues of the farms along the Hudson, "it is probably more useful to think in terms of relative percentages of subsistence and commercial agriculture, rather than subsistence versus commercial agriculture." Beginning in 1790 and lasting until 1825 farmers in what would become Black Rock Forest did not abruptly plow under their vegetable plots and begin planting wheat. Rather this shift from subsistence to cash-crop grain production was gradual and often involved a blending of both types of agricultural practices.

The causes of this shift in farming were part of an overall economic and demographic transformation that affected the entire Northeast during the half-century after 1790. The impetus for this change originated in Europe, where the economic disruptions of the Napoleonic Wars further aggravated what had already become a chronic food shortage. As European demand for American foodstuffs increased, so did prices for such commodities. Sensing a rare economic opportunity, farmers in New York's Orange County began growing cereals and transporting them to nearby Newburgh, New York, which during this period quickly became a center for the collection and reshipment of local grains. Farmers within Black Rock Forest undoubtedly did likewise.

Along with events in Europe, the city at the mouth of the Hudson was undergoing dramatic demographic changes during this period that also promoted this shift to a more commercial form of agriculture. Between 1790 and 1820 the population of New York's urban area increased by more than 100,000, helping to propel the metropolis to the pre-eminent position it would thereafter maintain over Boston and Philadelphia. This population boom had obvious implications for upriver farmers, who responded by planting more acres with grain in order to feed the city's multiplying stomachs. Farmers in the Black Rock Forest region, for example, supplied the city with wheat and buckwheat for bread, rye for whiskey and barley for beer, and even oats as provender for livery horses. Besides these demographic changes within the city itself, New York at this time was also becoming the nation's commercial grain market, buying up cereals from its hinterland in the Hudson and Mohawk valleys and shipping them to points along the eastern seaboard and inland as well. With such increased demand it is no wonder that farmers in what became Black Rock Forest gradually began growing more grain.

This shift in crop cultivation also included important changes in agricultural husbandry. The most obvious of these was the increase in total acreage being farmed. Not only did farmers in the Black Rock region expand their holdings during this period, but newcomers also cleared land in order to capitalize on the booming grain market. Between 1790 and 1820 the population of the Hudson Valley skyrocketed, increasing by more than 150,000 inhabitants, most of whom

¹⁹ Cohen, The Dutch-American Farm, 112.

²⁰ Mark Carnes, "The Rise and Fall of a Mercantile Town: Family, Land and Capital in Newburgh, New York 1790-1844," *Hudson Valley Regional Review* Vol. 3, No. 2 (September 1985), 21-22.

²¹ Thompson, Geography of New York State, 154.

²² For a good description of New York City's role in this shift to commercial agriculture in the Hudson Valley, see Ulysses Hedrick, *A History of Agriculture in the State of New York* (New York: Hill and Wang, 1933), 331-338.

were farmers.²³ Along with expanding the amount of agricultural land, farmers in the Black Rock region also attempted to increase the output from the land itself. In an effort to more efficiently manage their fields, for example, many Highland farmers during this period experimented with new plow animals. "The substitution of the horse for the ox in the first half of the nineteenth century was the beginning of commercial agriculture," writes Ulysses Hedrick in his *A History of Agriculture in the State of New York*. According to Hedrick, the horse was at least four times as efficient in plowing as the slower, lumbering ox. "It was the substitution of the horse for the ox that enabled American farmers to expand their operations and to subdue the vast expanse of the country's farmland."²⁴

Between 1790 and 1825, then, farmers in the Black Rock Forest region not only expanded the number of acres cultivated, but they also came to rely on a less diverse array of crops in their shift towards commercial grain production. In many ways this represented the most economically rewarding period for Highland farmers. "Agriculture use of land was at its most extensive development . . . between 1815 and 1830," writes ecologists Stephen Spurr and Burton Barnes. "Throughout the entire eastern seaboard, most upland sites were cleared and were farmed." This boom-time, however, was short lived, for the opening of the Erie Canal initiated a long decline in farming all along the Hudson Valley.

The Erie Canal and the Shift to Perishables: Post-1825

The Erie Canal radically altered farming practices throughout the Hudson Valley, the Black Rock Forest region included. Completed in 1825, the Canal linking the Great Lakes with the upper Hudson River greatly reduced long-distance freight rates and thus provided western farmers, who already benefited from higher yields, larger farms, and lower production costs, with access to eastern markets. "The Erie Canal robbed the farmers along the Hudson of their supremacy as food providers," writes Hedrick, and "permitted the establishment of the Nation's granaries farther and farther to the west." Unable to compete, many Highland farmers simply stopped growing grain and once again shifted their agricultural practices. Many farmers in the Black Rock region chose to let their grain fields law fallow, and instead began growing perishable goods such as fruits, vegetables, and dairy products that could remain fresh during the short trip downriver to New York City, but which would have gone bad during the long three hundred and sixty-three mile shipment across the Canal.

In many respects, growing vegetables for market was the easiest of all agricultural transitions to make for Hudson Highland farmers. Although such produce accounted for only a small percentage of total farm output, farmers in the Black Rock Forest vicinity increasingly shipped surplus vegetables to downriver markets during the mid-nineteenth century. Proximity to New York City and improved river transportation, including the spread of steamboat service after Robert Fulton's *Clermont* powered to Albany in 1807, allowed Highland farmers to market a variety of vegetables including tomatoes, sweet corn, squash, peppers, peas, beans, watermelons,

²³ Thompson, *Geography of New York State*, 154.

²⁴ Hedrick, A History of Agriculture, 356.

²⁵ Stephen Spurr and Burton Barnes, Forest Ecology (John Wiley & Sons Publishers, 1964), 444.

²⁶ Hedrick, A History of Agriculture, 266.

and pumpkins.²⁷ Even the potato, which by 1840 was being used widely for its starch, began to figure prominently in the local marketplace at this time.²⁸

As with vegetables, farmers in the Black Rock Forest region were also familiar with fruit production, albeit it on a small scale. During the colonial era travelers visiting the Cornwall area continuously commented upon the fact that each homestead maintained a small orchard.²⁹ After the opening of the Canal, as western wheat began flooding the New York City market, Highland farmers planted more fruit trees and began marketing the surplus. This expansion into fruit production during the 1830s and 1840s was further promoted by the well-known landscape writer and Cornwall resident A.J. Downing, whose 1845 book Fruits and Fruit Trees of America helped make the Hudson Highlands the "heart of New York fruit growing." 30

A well-documented example of this shift towards fruit production in the Black Rock Forest region is suggested by the experiences of a farmer in nearby Putnam County, New York. Lying just across the Hudson from Black Rock, Isaac Oakley's farm was also "small and rocky." According to historian Field Horne, who has studied the Oakley homestead in depth, "apples were Oakley's earliest and most successful foray into the New York City market." Isaac Oakley's two-acre orchard of eighty trees, for instance, produced one hundred and fifty bushels worth sixty dollars in 1879.³¹ Although apples were the most popular fruit grown throughout the Highlands, farmers like Oakley also cultivated apricots, blackberries, cherries, peaches, plums. and pears, often shipping them by steamboat downriver to New York City. 32 Such fruit production continued in the Black Rock region until the end of the nineteenth century.

Along with growing perishables including fruits and vegetables, after 1825 Highland farmers also began marketing surplus dairy products in an effort to offset losses from dwindling wheat returns. Orange County butter in particular was regarded in New York City during the 1830s as the standard of excellence.³³ Although dairy figures for farms within Black Rock are nonexistent, the Oakley farm in neighboring Putnam County again proves suggestive. According to Horne, the Oakley family milked five cows and made five hundred to six hundred pounds of butter a year, most of which was shipped downriver to New York.³⁴ And because the land within Black Rock Forest was even more mountainous than that across the river, farmers there most probably relied even more heavily on dairying than the Oakleys (see individual descriptions of homesteads in Part III).

The switch to dairying throughout the Hudson Highlands also affected crop cultivation in the region as well. As farmers in the Black Rock region began to rely increasingly on milk, butter, and cheese production, they also increased their acreage in fodder crops. By mid-century, for

²⁷ Cohen, The Dutch-American Farm, 118.

²⁸ Field Horne, "Life on a Rocky Farm," The Hudson Valley Regional Review Vol. 7, No. 1 (March 1990): 35.

²⁹ Cohen, The Dutch-American Farm, 116.

³⁰ Hedrick, A History of Agriculture, 394. Also see Cohen, A Dutch-American Farm, 118.

³¹ Field Horne, "Life on a Rocky Farm," 39.

³² Hedrick, A History of Agriculture, 39 & 392.

³³ On Orange County butter, see Hedrick, A History of Agriculture, 364; Carnes, "Rise and Fall of Mercantile Town, 23; and Thompson, *A Geography of New York State*, 166. ³⁴ Horne, "Life on a Rocky Farm," 37.

instance, hay, oats, and corn had become the principle farm crops planted in the Hudson Valley. Thus between 1850 and 1890, as Hudson Valley farmers continued to plant less wheat and more vegetables and fruit trees, they also began replanting their former wheat fields with fodder crops to feed their increasing head of dairy cows.³⁵

The Ecological Implications of Black Rock Agriculture and Dairying

The shift from subsistence to cash-crop grain farming between 1790 and 1825 had a number of ecological consequences for Black Rock Forest. The more intensive plowing associated with agricultural monoculture resulted in increased soil erosion in farmed areas throughout the forest. Such practices also destroyed native plant species and replaced them with an entirely new habitat populated mainly by European plants. Because of this less diverse plant population, the farmed soils of Black Rock Forest began to lose many of the nutrients that had originally sustained (and been sustained by) its ecological community. The result was increased soil exhaustion throughout the farmed areas of the forest.³⁶

Along with single-crop agriculture, the rise of dairying after the opening of the Erie Canal in 1825 also jeopardized Black Rock soil. Cows' hooves trampled and tore the ground, and their weight also compacted the soil so as to harden it and reduce the amount of oxygen contained within it. This in turn curtailed the root growth of higher plants, lowered their ability to absorb nutrients and water, and encouraged the formation of toxic chemical compounds. Soil compaction, in other words, created conditions that were less hospitable to plant life and eventually lowered the soil's carrying capacity for water.

Decreasing Farmland

Thus farming in the Black Rock region underwent a three staged evolution during the nineteenth century that ultimately had ecological implications for the forest. Whereas during much of the colonial era Highland farmers were for the most part subsistence agriculturalists, growing a variety of crops on small plots of land for their own home consumption, between 1790 and 1825 they had shifted towards a more commercial form of agriculture that focused on wheat production for the New York City market. When the Erie Canal opened in 1825, however, and cheaper western wheat made its way to the mouth of the Hudson, these farmers were again forced to change their farming practices. Instead of grains, Black Rock farmers began producing perishables, including fruits, vegetables, and most importantly dairy products. Moreover, although until 1880 the total amount of land in the Highlands used for farming increased, by 1890 agriculture was experiencing a slow but steady decline in nearly all of its gross measures: in total land in farms, in cropland, and in number of farms. Thus by the time that Black Rock Forest was created in 1928, many of its former farming fields were already becoming overgrown with forest growth.

³⁵ Cohen, The Dutch-American Farm, 125 and Thompson, A Geography of New York State, 166 & 177.

³⁶ William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 147.

³⁷ Cronon, Changes in the Land, 146.

³⁸ Thompson, A Geography of New York State, 181.

WOODCUTTING BEFORE BLACK ROCK FOREST

Sometime around 1908 a prolific Highland hiker by the name of William Thompson Howell wrote of the people living in the Black Rock Forest region. "They are fairly prosperous mountain farmers," he recorded in an undated entry in his diary, "but first of all they are woodsmen." In many respects Howell was correct. From the earliest settlement up until the creation of Black Rock Forest those living in the mountains near Cornwall supplemented their farming with income from the cutting of timber and the fabrication of wood products. For many within Black Rock Forest, in fact, supplying fuel in the form of cordwood and charcoal for the area's two main industries — iron and brick making — represented the main source of income.

Rise of New York Lumber Industry: 1830-1850

Since colonial times settlers along the Hudson had cut timber in order to manufacture goods for their homes. Many Black Rock residents, for instance, fabricated a variety of everyday materials from local timber including household utensils, agricultural implements, fences, and even small baskets called "bockeys." Along with making items for the home, however, Black Rock farmers also used local timber to produce commodities for market. Many families manufactured railroad ties, posts, pulp, and pearlash, and sold them in local commercial centers or shipped them downriver to New York City. Outnam County's Isaac Oakley, for instance, frequently shipped hoop poles to nearby Peekskill, and sold wooden baskets to neighbors during this period as well.

Along with the woodcutting done by local families, commercial lumbering also took its toll on the Hudson Highland forests during this period. Beginning in the 1830s New York lumbermen began focusing their cutting around the southern Adirondack region, only to expand southward during the following two decades as railroad expansion linked areas of the Highlands to New York City. In many ways the empire state was well suited to become a leading center of the lumber production and distribution. Besides possessing the nation's largest lumber-consuming population as well as easy water access far into its forested hinterland, New York also had an extensive lumbering infrastructure that had long surpassed that of New England in importance and output. In fact so impressive was New York's lumber capacity that by 1850 it had become the leading lumber state, accounting for thirty percent of lumber cut in the United States.

Fueling Highland Industry: 1850-1880

Although many Highland homesteaders cut local trees in order to manufacture items both for the home and market, the greatest use of Black Rock wood during this period involved cutting

³⁹ William Thompson Howell, *The Hudson Highland: William Thompson Howell Memorial*, Vol. 1 (New York: Lenz & Riecker, Inc., 1933), 115.

⁴⁰ Hedrick, A History of Agriculture, 137.

⁴¹ Horne, "Life on a Rocky Farm," 40.

⁴² Thompson, A Geography of New York State, 167-168.

⁴³ Michael Williams, *Americans and their Forests: A Historical Geography* (New York: Cambridge University Press, 1989), 178.

⁴⁴ Thompson, A Geography of New York State, 98.

timber for fuel. Not only was there a continual need for wood to heat settlers' homes, but lumber was also being used to power much of the industrial revolution that was at this time spreading up through the Hudson Valley from New York City. Steamboats, railroads, and numerous factories all along the Hudson burned wood in order to power their machinery.

Cutting wood and converting it to charcoal in order to more efficiently fuel local iron furnaces was, along with farming, the most important source of income for Black Rock families. When Robert Juet, aboard Henry Hudson's Half Moon, wrote in 1609 that the mountains behind Cornwall "look as if some metall or minerall were in them [sic]," he had guessed correctly. Riddled with deposits consisting largely of what geologists call magnetite, a form of iron oxide with the highest known iron content, the Hudson Highlands quickly became sprinkled with furnaces during the colonial period. The great chain spread across the Hudson River at West Point during the Revolutionary War, for instance, was forged locally from Highland ore. While the foundry at Cold Springs, across the river from Cornwall, and the one at West Point, were the largest ironworks in the Black Rock region, numerous other lesser-known furnaces also ran on Highland wood. Many of the mines located throughout the Black Rock area, including the Forest O'Dean Mine, Round Pond Mine, and the Rich Mine located off of Mine Hill Road near the trailhead of what is today the Black Rock Forest "Northern Loop Trail," most probably maintained small furnaces nearby which were fed by local charcoal.

When after the Civil War the Highland iron industry began using coal rather than wood to feed its furnaces, and soon after began to decline because of competition from cheaper ores discovered in the Lake Superior region, many local Black Rock residents found a substitute market for their cordwood in the numerous brick kilns that lined the Hudson River's clay banks during this period. Nearby Haverstraw, New York, for instance, was at this time the country's leading producer of bricks and continued to rely on cordwood to fire its ovens. Even closer to home there were numerous brick manufacturers ready to buy up local cordwood. Leonard Clark ran a brick yard in Cornwall until 1872, as did Stephen Gillis, who manufactured more than four million bricks annually. In order to fire these kilns, settlers cut-over much of Black Rock Forest at relatively short intervals of perhaps thirty to forty years.

Pennsylvania Coal & the Decline of Black Rock Woodcutting: 1880-1928

Like the opening of the Erie Canal, the discovery of anthracite coal in eastern Pennsylvania during the 1830s set in motion a major transformation of the Hudson Highland region. Because it weighed less and was less bulky in relation to its energy content than wood, and because the physical storage of cordwood caused difficulties in urban areas, coal slowly replaced wood as

⁴⁵ Quoted in Schiff, *In Celebration of Cornwall*, 36.

⁴⁶ Ransom, *Ironworks of the Ramapos* (New Brunswick: Rutgers University Press), 3.

⁴⁷ For information on iron furnaces in the Cornwall area see Schiff, *In Celebration of Cornwall*, 36; Beach, *Cornwall*, 173; and *Fifty Hikes in the Hudson Valley*, 60.

⁴⁸ For information concerning the brick-kilns of Haverstraw see Dunwell, *The Hudson Highlands*, 151; and Solvitur Ambulando, ed., *In the Hudson Highlands* (New York: Appalachian Mountain Club, 1945), 227.

⁴⁹ Beach, Cornwall, 171.

⁵⁰ Raup, "Botanical Studies in the Black Rock Forest," 70.

fuel in both the Northeast and old Northwest during the mid-nineteenth century. In addition, coal also became the domestic fuel in nearly every city with a population of over 15,000.⁵¹

The expansion of railroads throughout the Hudson Valley between 1850 and 1890 further exacerbated this shift to coal as an energy source. Entrepreneurs in Newburgh, New York, just upriver from Black Rock Forest, first proposed the construction of a railroad line to connect their city with the coal mines of eastern Pennsylvania in 1829. When this branch line from the Erie Railroad to Newburgh was finally completed in May of 1851, it initiated a gradual decrease in the amount of woodcutting throughout the Black Rock region. ⁵² Although the era of cordwood fuel may have lasted longer in the less accessible reaches of the Highlands, by 1890 its end had begun and by 1928, when Black Rock was created, it was clearly over. By then, according to Black Rock forester Henry Tryon, the brick manufacturers of Haverstraw had also turned to coal and local households had begun using gas and electricity for cooking and heating. ⁵³

Lumbering's Imprint Upon Black Rock Forest

lthough the trees of the Hudson Highlands were less likely to be felled for fuel after the discovery of Pennsylvanian coal, two hundred years of lumbering left lasting scars upon the Black Rock Forest landscape. The most serious of these was the deforestation which accompanied the cordwood cutting era prior to 1880. According to estimates made in 1930 by Tryon, approximately one hundred acres, or more than three percent of the total land within Black Rock Forest, had been cleared of timber. Of a more lasting impact are the numerous wood roads formerly used to transport cordwood and which today function as Black Rock's hiking trails. Less noticeable are the skidding areas still visible in some areas of the forest. Lumbermen often harnessed draft animals, chiefly horses, to sledges which dragged felled trees to nearby cutting areas. If sledges were unavailable, woodcutters simply used one or two horses to drag the log along the ground. Section 1880.

The deforestation, remnants of old wood roads, and skidding areas resulting from two centuries of woodcutting have also had a lasting impact on Black Rock's ecology. According to Black Rock forester Hugh Raup, the generally universal practice of clear-cutting coppice stands over a rotation of only thirty or forty years greatly increased the number of stool sprouts and has raised the percentage of "less desirable" species in the forest such as chestnut oak, red maple, gray birch, and bit-toothed aspen. Wood roads and skidding areas also altered the environment of Black Rock Forest. Soil compaction caused by logging traffic near uncut stands can reduce growth rates by as much as sixty percent. Logging done during the late nineteenth century, then, most probably reduced the rate at which certain areas of Black Rock Forest regrew.

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⁵¹ Williams, Americans and their Forests, 334.

⁵² Ruttenber, *History of the County of Orange*, 223.

⁵³ Henry Tryon, "A Portable Charcoal Kiln," *Black Rock Forest Bulletin*, No. 3, 13.

⁵⁴ Raup, "Botanical Studies in the Black Rock Forest," 70.

⁵⁵ Tryon, "A Portable Charcoal Kiln," 12.

⁵⁶ Nelson Brown, *Logging: The principles and methods of harvesting timber in the United States and Canada* (New York: John Wiley & Sons, 1934), 141 & 282.

⁵⁷ Raup, "Botanical Studies in the Black Rock Forest," 71.

⁵⁸ Stephen Spurr and Burton Barnes, *Forest Ecology* (Wiley & Sons, 1964), 361.

TOURISM REPLACES WOODCUTTING: 1850-1910

As woodcutting decreased in economic importance throughout the Black Rock region, tourism rose to take its place. Beginning in the late nineteenth century and lasting until the end of the first decade of the twentieth, vacationers visited the Hudson Highlands in increasing numbers. And although such tourism declined after 1910, as more and more pleasure seekers ventured farther north to enjoy their leisure, vacationers nevertheless also left their mark on the landscape of Black Rock Forest.

Escaping the Diseased City

The same railroad lines that brought Pennsylvania coal to the Hudson Valley, and therefore caused a decline in cordwood cutting throughout Black Rock, also carried vacationing passengers to the region. Some sought pleasure in the beautiful Highland scenery, but most, at least in the early years, were in fact fleeing New York City. Outbreaks of yellow fever and malaria swept through the city before the Civil War and cholera epidemics struck in 1832, 1848 and again in 1854. In addition, during this period tuberculosis became so widespread throughout the urban area and so lethal that it precipitated a health crisis of major proportions. ⁵⁹

Although physicians were the first to recommend that people leave the city, it was not long before the tourist industry joined this chorus. Advertisers, for instance, promoted the idea that New York was unhealthy and that vacations beyond its borders proved a cure. Steamboat operators also used the fear of disease as a way to encourage passenger service upriver. Most importantly, however, railroad companies, which had just laid track up the Hudson Valley in 1848, began portraying the New York City environs as malarial, and suggested that rail trips north would be restorative. Such promotion was indeed successful, and thousands of New Yorkers began traveling northward, especially during the dangerous summer months. ⁶⁰

Cornwall as a Healthful Retreat

The most popular destination for New York City vacationers, at least during the sixty years between 1850 and 1910, was undoubtedly the Hudson Highlands, for while metropolitan advertisers were portraying the urban area as unsanitary, boosters along the Hudson were promoting the Highlands as clean and invigorating. One such promoter was Knickerbocker writer Nathaniel Parker Willis. Having sought and failed to find more hygienic surroundings in both Bermuda and the West Indies, upon doctors' orders Willis finally retreated to the Highlands during the summer of 1851. There he gradually recovered, and in 1853 built a country estate in Cornwall that he called "Idlewild." Through weekly letters to the *Home Journal*, which were later compiled into a book titled *Outdoors at Idlewild*, Willis began to publicize what he called the "Highland Terrace" as healthful. With New York City in the midst of a disease epidemic, and with more than fifty-thousand urbanites reading the *Home Journal* each week, anyone who could afford to do so followed Willis' example and journeyed to the Highlands. 61

⁵⁹ Dunwell, *The Hudson River Highlands*, 83.

⁶⁰ Dunwell, The Hudson River Highlands, 89.

⁶¹ Dunwell, *The Hudson River Highlands*, 85-87.

As the location of Willis' estate, and with four rail lines making daily stops in town, it is no wonder that Cornwall, along with nearby West Point, became the center of the Highland tourist industry during the later part of the nineteenth century. As Cornwall booster Lewis Beach wrote in 1873, "less than five-and-twenty years ago, the boarding houses in Cornwall could be numbered on the fingers. Now they are counted by scores." During the very year that Beach was writing, six thousand vacationers visited Cornwall, many of whom spent the entire summer. According to local promoters, recreation in the area consisted of eating healthy foods from the surrounding farms, walking in the woods, and visiting the nearby mineral springs in what would become Black Rock Forest. Beach with the surrounding farms, walking in the woods, and visiting the nearby mineral springs in what would become Black Rock Forest.

Black Rock's Mineral Spring Becomes Tourist Site

In his 1873 visitor's guide to Cornwall, Lewis Beach singled out one of the areas most popular attractions — Mineral Spring — located on the southwestern border of what is today Black Rock Forest. "Cornwall possesses, in this Spring," Beach wrote, "an attraction which can, under proper management, make her equal, if not excel, Saratoga [sic]."65 Twenty years later guidebooks on Cornwall were still promoting the medicinal value of this mineral water. "The water is very cool and has an astringent taste," explained guide-writer Addie Wright in 1892. "Its valuable properties as a chalybeate water, and its attractive surroundings, have induced hundreds of visitors to frequent this sequestered spot."66 In fact, so important was the spring to the local tourist trade that the town of Cornwall induced a chemist from the New York City board of health to analyze a specimen of Mineral Spring water in the early 1890s. Tourism promoters like Wright were only too happy to publicize such scientific findings. "His analysis," Wright told her readers, "shows that the water contains 9.57 grains of salt in one gallon, and that it is especially rich in phosphate of soda, silica and bi-carbonate of iron." She concludes her description by noting that "there is an old tradition that Indians were accustomed to resort to this spring for healing purposes, and we have heard of several instances where as a curative agent it has proved efficacious."67

Tourism Rejuvenates Black Rock Farming

Although after 1910 healthful environs farther to the north, such as the curative waters of Saratoga, soon replaced Cornwall as a tourist destination, visitors to the Black Rock region nevertheless influenced land-use practices within the forest itself. Between 1850 and 1910, for instance, prices for farmland in the Black Rock region rose because increased tourism gave farmers a home market for their produce. This, along with the fact that the year-round population of the Cornwall area was also increasing, suggests that farmers who had allowed former grain fields to lay fallow after the opening of the Erie Canal now increased the percentage

⁶² The four rail lines stopping in Cornwall were the Ontario & Western, the West Shore, the New York Central, and the Erie Short Cut.

⁶³ Beach, Cornwall, 153.

⁶⁴ Schiff, In Celebration of Cornwall, 11.

⁶⁵ Beach, Cornwall, 52

⁶⁶ Addie Wright, *The Standard Guide of Cornwall* (Cornwall: Thomas Pendell Publisher, 1892), 17.

⁶⁷ Wright, The Standard Guide of Cornwall, 17.

⁶⁸ Beach, Cornwall, 166.

of their land used for agriculture. And because healthful food was part of the experience desired by those fleeing the disease-ridden city, many farmers in the Black Rock region undoubtedly grew perishables on an even more extensive scale. Even with such agricultural expansion Cornwall farmers, including those residing in Black Rock Forest, were unable to supply summer tourists with all their nutritional needs. During the early 1870s, for instance, the town was forced to import large quantities of farm products to get through the summer season.⁶⁹

BLACK ROCK FOREST'S HIDDEN PAST

Today much of Black Rock Forest's past remains hidden from view. Its history of land-use has, in a sense, been covered by regrowth. Contemporary visitors must look carefully for the crumbling stone walls bordering former grain fields, the unpruned apple, pear, and cherry trees standing conspicuously in a grove of oaks, or the sudden depressions in the landscape that most probably served as charcoal pits. While such signs of past land-use practices are merely of interest to the thousands of hikers, bikers, and birders who visit Black Rock every year, they and their history are of great importance to scientists doing research in the forest today.

As this study has explained (see land-use time-line), the Black Rock region began as a subsistence farming community in 1684, when the first permanent resident settled in Cornwall New York. Subsequent homesteaders grew a diverse array of crops on small parcels of land, and supplemented this home consumption with the light production of wooden goods such as household utensils and baskets. Although during this period farmers were gradually becoming linked to local commercial markets, it was not until the 1790s, when the New York City population skyrocketed, that land-use practices in the Black Rock region changed significantly. To feed the growing number of New York City stomachs, many Black Rock residents increased their acreage and began farming their land more intensely, growing cash-crop grains such as wheat, oats and barley, and shipping them downriver.

When the Erie Canal opened in 1825, land-use practices in the Black Rock region shifted once again. By dramatically lowering long-distance freight rates for western wheat, the Canal doomed many Hudson Valley grain farmers. In response to such competition, many Black Rock homesteaders began growing that which western farmers could not, namely perishables such as fruits and vegetables, and dairy products including milk and cheese. While such goods could remain fresh during the trip down the Hudson, they would have gone bad somewhere along the three hundred and sixty-three mile Erie Canal.

The same forces that resulted in the construction of the Erie Canal, also ushered in a new era of wood-use throughout the Highland region. Industrialization, which spread along the Hudson River during much of the nineteenth century, was fueled during its early stages by Hudson Valley trees. In the Black Rock region, such trees were cut into cordwood, often transformed into charcoal, and then sold by homesteaders to the local iron furnaces and the brick kilns of Cornwall and Harverstraw. When local ironmakers gradually began firing their furnaces with Pennsylvania coal in the 1880s, Black Rock farmers cut less wood, although they still supplied it to local brickmakers.

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⁶⁹ Beach, Cornwall, 166.

As woodcutting went into decline, however, another industry rose to take its place. Tourism came to the Highlands in 1851, when Nathaniel Parker Willis settled in Cornwall and began promoting its healthful qualities. By the 1880s boarding houses had multiplied and vacationers were swarming to the area, especially during the summer months. For Black Rock farmers such changes were an economic godsend, as demand for foodstuffs increased dramatically along with the local population. Prices for agricultural land rose during this period, and farmers increased their production of fruits, vegetables and dairy products.

The tourist boom in the Cornwall region failed to last, however. Around the turn of the century, as New York City vacationers journeyed farther north to places like Saratoga and the Adirondacks, land-use patterns in the Black Rock region shifted once again. Overall this was a period of rural decline throughout the Hudson Highlands. Less land was being farmed, fewer agricultural goods were being produced, and not as many trees were being cut for cordwood and charcoal. In many respects, then, 1910, not 1928, marks the beginning of Black Rock Forest's regrowth. When Ernest Stillman decided to create Black Rock, it was in reality already on its way towards recovery. And although that recovery would help hide the more than two-hundred year evolution of land-use practices in the forest, the effects of such practices remain. Today they can be found not only in the stone walls crumbling throughout the forest, but perhaps more importantly in the soil, the water, and in the trees themselves.

Tourism

⁷⁰ Thompson, *Geography of New York State*, 181.

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PART III: THE BLACK ROCK FOREST HOMESTEADS

Part III of this study will examine the individual homesteads now located within the boundaries of Black Rock Forest. Special attention will be paid to the specific land use practices employed on each of these properties. In doing so, both the physical terrain as well as any man-made remnants still visible upon the landscape were historically analyzed. Documentary research was also conducted to compliment these physical surveys whenever possible. Each of the following descriptions of the land use practices on all seventeen known properties within Black Rock is accompanied by detailed maps of each individual homestead [Ed Note: See Map Files, pdfs keyed to Site numbers].

SITE #1: THE MAILLEY PROPERTY

The Mailley homestead was a working farm prior to the creation of Black Rock Forest in 1928. During the late 18th and early 19th centuries, the Mailleys lived just south of Mountain Road below what is today the Black Rock Forest parking lot. ⁷¹ The two stone foundations just off to the southern side of the road are remnants of their house. Upstream on the runoff brook from the Upper Reservoir the Mailleys built and maintained a dam, part of which is still visible. Whether this dam provided water power for a grist or sawmill, or was used to create a pond for fishing or ice cutting is difficult to ascertain, but it is probable that the pond served utilitarian rather than aesthetic purposes. The Mailleys also farmed a number of fields in this vicinity, most of which were uphill from their residence. One such field encompassed the area which is today the Black Rock Forest parking lot. 72 Another agricultural plot is visible farther north, up on the top of the hill at the back end of the parking area. The young growth on this field, which includes many barberry bushes, suggests that the land here was farmed for a number of years. The stones comprising the rock walls that border this field, most of which are small and most probably taken from the field as Mailley's plow uprooted them year after year, also indicates this was agricultural land. 73 The Mailley's barn was also up in this area, suggesting that the family most probably combined some dairying along with their small-scale agricultural practices. William Thompson Howell, who hiked extensively throughout the region in 1908, mentioned the Mailleys in his diary. After buying a dozen eggs from the Mailleys Howell wrote, "James Mailley is not a native of the Highlands but of Erin . . . He is a decided character, his brogue and whiskers are equally admirable, and his flow of philosophy a delight to listen to."⁷⁴

<u>Map 1</u>

⁷¹ The location of the Mailley Place is noted on Black Rock Forest Compartment III Map, Black Rock Forest Archives, Cornwall, New York. This location is confirmed by William Thompson Howell in an entry in his diary dated May 3, 1908. Excerpts of Howell's diary were subsequently published and titled *Memorial* (New York: Lenz & Riecker, Inc., 1934), 46 & 116. Buster Babcock also placed the Mailley home in this area, interview by author, Tape recording, Cornwall, New York, 20 May 1995. This tape is located in the Black Rock Forest Archives, Cornwall, New York.

⁷² Babcock, interview with author, 20 May 1995.

⁷³ On determining land use from stone walls see Stephen Spurr & Burton Barnes, *Forest Ecology* (New York: John Wiley & Sons, 1964), 568. According to Spurr and Barnes, stone walls made up of rocks taken from cultivated fields contain a greater variety of stone sizes and a greater number of stones than do simple stone walls that were erected to mark property lines or to fence in cattle and sheep.

⁷⁴ Howell, *Memorial*, 46.

SITE #2: THE BARTON PROPERTY

The Barton farm is one of the most extensive homesteads located within Black Rock Forest. Covering several dozen acres, the farm is divided by stone walls into approximately eight fields and a homestead area. The extent of such an impressive wall system, as well as the sizes of stones comprising these walls, indicates that this land was used for agricultural purposes over numerous generations. The Bartons lived on this site since at least 1875. Whether they occupied the land prior to this period is unknown, but the stone walls suggest that this land was being farmed much earlier than this date. In order to cultivate such holdings the Bartons undoubtedly relied on domesticated animals including oxen and horses. They, like many of Black Rock's early residents, probably also relied on dairying and cordwood cutting to supplement their agriculture. The small pond in their western-most field would have been a convenient water source for livestock. The family also sold peat from what was known during the late 19th century as "Barton's Swamp." Black Rock Forest constructed the cinderblock foundation located in the middle of the farm, and has maintained the clearing to its south, making it more difficult to ascertain the land use of this area. The Barton house is believed to presently lie under the waters of the Upper Reservoir.

Map 2

⁷⁵ The location of the Barton homestead is noted on Black Rock Forest Compartment IV Map, Black Rock Forest Archives, Cornwall, New York.

⁷⁶ E.M. Ruttenber, *History of the County of Orange: with a History of the Town and City of Newburgh* (Newburgh, New York: E.M. Ruttenber & Son, Printers, 1875), 62.

⁷⁷ Ruttenber, *History of the County of Orange*, 62.

SITE #3: THE ALECK DAIRY FARM

Little is known about the history of the region surrounding Aleck Meadow Reservoir prior to the creation of Black Rock Forest. According to Henry Tryon, Black Rock's first director, the reservoir occupies what was once a small dairy farm. The terrain surrounding the reservoir supports this statement. The southern shore, although divided by stone walls into sections, remains far too rocky to have ever been farmed. The stones in these walls, all large and of similar size, instead suggest that these rock fences were used to enclose cattle rather than as borders to cultivated fields. The stumpage on the reservoir's eastern shore, along with the two cement and stone charcoal pits north of the Black Rock gate, indicates that at some point the area was also logged. A core sampling of fallen trees would determine the date of such cutting. The Aleck Meadow homestead may lie under the reservoir, or it may have been located below the dam along Black Rock Brook. There are foundation remnants on the western slope of Honey Hill that may have been associated with the Aleck dairy. The quarrying and larger charcoal pits on the reservoir's western shore are of a more recent date. The rusted stone crusher located near these pits was used by Stillman during the 1930s and 1940s. Workers employed by Black Rock also made charcoal here at this time. The supplies the supplies of the reservoir of the pits of the reservoir of the pits of the reservoir of the reservoir of the pits of the pits

Map 3

⁷⁸ Henry Tryon, "The Black Rock Forest," *Black Rock Forest Bulletin*, No. 1 (Cornwall, New York: 1930), 12.

⁷⁹ Babcock, interview with author, 20 May 1995.

SITE #4: THE PETE LEWIS PROPERTY

The Pete Lewis property was one of the mid-sized homesteads in what is now Black Rock Forest. Although there is little written material documenting this farm before the creation of Black Rock, the landscape itself contains an abundance of evidence from which to draw conclusions. The Lewis house, the foundation of which still stands, indicates an impressive enough residence for year-round occupancy. The extensive fields surrounding the home support this notion of a permanent habitation. The farm is divided into at least five fields, all bordered by stone walls. Again the size of the wallstones and the young tree growth in these fields indicates their use for cultivation rather than as pasturage for domesticated animals. The two piles of stones located to the east of the foundation, which Lewis most probably created over the years as his plow uprooted rocks and he moved them to the edge of his fields, also indicates that the land was farmed. The only exception to this is the smallest field near Route 9W. The height of the walls surrounding this field, three feet all around, suggest their use as an animal enclosure. The pits located to the west of the household also illustrate that the Lewis's not only cleared the forest to make way for fields but also produced charcoal from this wood in order to supplement their agricultural income.

Map 4

⁸⁰ The location of the Pete Lewis place is noted on Black Rock Forest Compartment XV Map, Black Rock Forest Archives, Cornwall, New York.

⁸¹ That the Lewis's farmed is also supported by Babcock, interview by author, 20 May 1995.

SITE #5: "ANNIE'S CABIN"

The site that has become known locally as "Annie's Cabin" was one of the least developed year-round residences in Black Rock Forest. Before Ernest Stillman created Black Rock in 1928 a couple and their son lived in a small home where the foundation now stands. The family cut cordwood and farmed on adjacent lands, although the rocky terrain surrounding the foundation indicates that such cultivation was limited. Perhaps this was due to the untimely deaths of both Annie's husband and son. According to local residents, both were killed by an accidental explosion in Glycerin Hollow, a mishap which gave the location its name. The abundance of stumps and rotting trunks in the area suggests that while Annie may have ceased agricultural production on her land, logging most probably continued. It was not uncommon for residents in the region to sell the wood on their property to support themselves. The steep downhill grade to the east of the pond on Annie's property would have been a suitable skidding area for the transportation of such timber towards the Hudson River and local sawmills.

<u>Map 5</u>

⁸² Babcock, interview with author, 20 May 1995.

SITE #6: THE ISAAC ODELL PROPERTY

Of the two Odell properties located in Black Rock Forest, Isaac Odell developed his land less intensely. 83 The foundation to his home, which rests against a large boulder that served as the cabin's back wall, illustrate a modest dwelling for a small-sized family. The stone walls and rock-pile uphill and to the west of the cabin, while suggestive of agriculture, are less than extensive and indicate that such cultivation was limited. 84 The Scenic Trail, which was constructed by Black Rock directly through the Isaac Odell property may have obscured or destroyed the remains of more intensively farmed lands. This seems unlikely, however, since the steep terrain on the other side of the trail is not conducive to cultivation. The pit to the west of the cabin indicates that Odell also manufactured charcoal. Although little of the surrounding forest appears to have been cleared for logging, the swamp to the south of the cabin could have been a woodlot. Odell, however, was not the only occupant to leave his mark upon this landscape. After purchasing the land from Odell, Stillman allowed an elderly writer from New York City to use the property. It was this man, named Martinique, who built the tar-paper shack to the south of Odell's cabin. 85 Martinique visited the area only on weekends during the warmer months. He does not seem to have maintained either Odell's agricultural or charcoal-making practices.

<u>Map 6</u>

⁸³ The location of the Isaac Odell property is noted on Black Rock Forest Compartment XVIII Map, Black Rock Forest Archives, Cornwall, New York.

⁸⁴ The Issac Odell farm was mentioned by Hugh Raup, "Botanical Studies in the Black Rock Forest," *Black Rock Forest Bulletin*, No. 7 (Cornwall, New York: 1938), 69.

⁸⁵ Babcock, interview with author, 20 May 1995.

SITE #7: THE SAM DREW PROPERTY

The Sam Drew homestead functioned as a small-sized farm during the late 18th and early 19th centuries. 86 The low stone wall running south from Old West Point Road marks the entrance to this farm. The Drew house was most probably located in the southwest corner of the property, where another wall, a large rock outcropping, and a depression in the landscape provide a protected setting for a home. The rocky terrain of the surrounding area indicates that farming on this homestead was limited. Remnants of only one field, located just south of Old West Point Road, are present. The walls bordering this field suggest that although the Drews did not place a large portion of their land under cultivation, they did farm it over an extended period of time. The height of the walls and the pile of stones, which Drew most likely built-up over the years as his plow loosened rocks from the soil and he moved them to the edge of the field, also indicates long-term farming practices. A second pile of stones located just north of the "Sam Drew Bridge" suggests that the eastern portion of the property may also have been cultivated before becoming the swamp that spreads over the area today. Although much of the Drew land appears too rocky to have ever been farmed, the land to the northwest of the house site seems to have been used by the family for other purposes. Sparse tree growth in this location and numerous rotting tree trunks indicate that this area may have been formerly logged. The Drews, therefore, like most other families residing in what became Black Rock Forest, appear to have supplemented their farming with cordwood cutting.

<u>Map 7</u>

⁸⁶ The location of the Sam Drew place is noted on Black Rock Forest Compartment VII Map, Black Rock Forest Archives, Cornwall, New York.

SITE #8: "THE BILLY PLACE"

On a number of Black Rock Forest maps the area along the southeastern edge of Jim's Pond is labeled "The Billy Place." Little evidence exists, however, from which to determine the type of land use practiced on this site before the creation of Black Rock Forest. The only remains are located between the southern shore and Jim's Pond Road, just east of the transverse which crosses the southern cove of the pond. Here, a stone wall and a small clearing indicate either an agricultural area or a homestead site. A few fruit trees in the vicinity suggests a homestead (must check notes on this). Workers involved in the construction of both Jim's Pond (it is an artificial body of water), and Jim's Pond Road, do not remember seeing more extensive homestead structures on this site before both projects were completed. Field walls and foundation remnants, however, could have been destroyed by the construction of the road or may still exist under the water of the pond.

Map 8

⁸⁷ The location of the Billy place is noted on Black Rock Forest Compartment XXI Map, Black Rock Forest Archives, Cornwall, New York.

⁸⁸ Babcock, interview with author, 20 May 1995.

SITE #9: THE SATTERLEE PROPERTY

The Satterlee homestead lies just north of Jim's Pond Road directly across from the access road to Round Pond. ⁸⁹ The Satterlee house, the foundation of which is still discernible, was located against a high stone outcropping just opposite a small hill which rises to the east. Between the foundation and this hill sits a cleared parcel of land indicating that the Satterlees maintained a yard, small garden, or area where domesticated animals might have been corralled. Although they resided here permanently before the creation of Black Rock Forest, the Satterlees left little other lasting imprint upon the land. The mature forest growth in the vicinity of the foundation suggests that they did not farm the region intensively. Here again, however, the construction of Jim's Pond Road may have resulted in the destruction of structures such as stone walls that would have indicated more extensive agriculture. The Satterlees relied on a spring near their house for their water, the exact location of which is today unknown. ⁹⁰

Map 9

⁸⁹ The location of the Satterlee property is noted on Black Rock Forest Compartment XIX Map, Black Rock Forest Archives, Cornwall, New York.

⁹⁰ According to Buster Babcock the Satterlees lived in this location year-round. The Satterlee spring, he noted, was located near the house. Babcock, interview with author, 20 May 1995.

SITE #10: THE RYERSON PROPERTY

The Ryerson house must have been one of the most impressive structures in what has become Black Rock Forest. The size of both the existing foundation and the stones comprising it indicate that the Ryerson home could accommodate a large number of people. A smaller structure, located just south of this foundation, was most probably the Ryerson barn. The expansive Black Rock Forest pine planting just east of these foundations suggests that the Ryersons maintained fields nearby (most Black Rock Forest plantings took place on previously farmed land). The young forest growth behind the Ryerson home also implies farming in this location also. The swamp which today nearly encircles the Ryerson homestead may also at one time have been cultivated fields. Because they lived in such close proximity to the waters of Mineral Springs, which became well-known for their curative properties during the late 19th century, the Ryersons most probably catered to tourists visiting these healthful waters, perhaps taking in borders in their large stone house. (Additional oral interviews still to be done concerning this Black Rock Forest property).

Map 10

⁹¹ The location of the Ryerson place is noted on Black Rock Forest Compartment XVII Map, Black Rock Forest Archives, Cornwall, New York.

⁹² A good description of the popularity of Mineral Springs can be found in Lewis Beach, *Cornwall* (Newburgh, New York: E.M. Ruttenber Publisher, 1873), 50.

SITE #11: THE JOHN ODELL PROPERTY

The John Odell homestead was one of the more extensive farms in Black Rock Forest. 93 Bisected by Jim's Pond Road, the Odell property covers several dozen acres and lies between Hall Road and Upper Mineral Spring Brook. The foundation of the Odell farmhouse lies just west of Jim's Pond Road. Although it is not known when this house was constructed, it had been abandoned by 1908. 94 Just north of the Odell home is a sunken area which most likely represents the cellar remains of a small out-building or barn. Evidence of agriculture abounds on the Odell land. To the west of Jim's Pond Road, rock walls, piles of plowed-up stones, and open land with few mature trees suggests that the area surrounding the Odell home was cultivated or cleared for other purposes such as cordwood cutting. To the east of Jim's Pond Road, a number of Black Rock planting areas also indicate former Odell fields. The fenced planting opposite the junction of Hall and Jim's Pond Roads, in fact, was at one time called "Odell field." The two cleared areas south of this site, also used by Black Rock Forest as planting sites, were most probably cleared by Odell for farming, as is suggested by the stone wall which partially borders the field closest to Jim's Pond Road. In the southern portion of the property between the Arthur Trail and Upper Mineral Spring Brook is another set of fields. Sparse tree-growth, stone walls, and a landscape that has been cleared of rocks, all suggest that this area too was previously farmed. Because the southern-most field on the Odell property is bordered by stone walls and the stream it could have been used as an animal enclosure, although this seems unlikely since it lies upstream from the Odell's water source. The John Odell spring is marked by a large tree on the west side of Jim's Pond Road where it crosses Mineral Spring Brook.

<u>Map 11</u>

⁹³ The location of the John Odell property is noted on Black Rock Forest Compartment IX Map, Black Rock Forest Archives, Cornwall, New York.

⁹⁴ Howell mentioned the abandoned Odell farmhouse in his diary entry dated April 4-5, 1908. Howell, *Memorial*, Vol. 1, p. 43.

⁹⁵ Howell identifies this area as "Odell field" in his diary entry dated November 4, 1906. Howell, *Memorial*, Vol. 1, p. 23.

SITE #12: THE CHATFIELD PROPERTY

The Chatfield place was the most extensive homestead in Black Rock Forest. ⁹⁶ The stone house still standing on the property was constructed in 1833 (the year etched above the front door) by John Kronkite. The Kronkites occupied the house and owned two-hundred and twenty acres of the surrounding countryside for three generations, with the property finally passing to John Kronkite's grandson sometime before 1875. By that year William Chatfield had bought the house and much, if not all, of the adjacent land. ⁹⁷ The Chatfields appear to have occupied the stone house until 1889, when the James Babcock family moved in and worked this land until 1913. Shortly thereafter the property was acquired by a Mr. Thomas Taft who in turn sold it to the Stillmans. ⁹⁸ It was immediately after the Babcocks moved out that the stone house was destroyed by fire, only to be rebuilt in 1932 by Black Rock Forest employees. The Black Rock garage, located across Continental Road from the stone house, was the site of the homestead's barn. ⁹⁹

The Chatfield homestead was comprised of nearly a dozen fields lining either side of Continental Road. The eastern portion of the farm between Continental Road and Arthur's Pond is divided into approximately six fields, each of which is bordered by stone walls. The stones in these walls, which vary in size and include many smaller rocks most probably uprooted by plowing, indicate that all these lands were used for agriculture. The pile of stones in the field adjacent to the present-day Black Rock garage, also the result of plowing, is by far the largest such pile to be found in the forest and suggests that these fields were also farmed over an extended period of time. A second somewhat smaller pile of stones located near Tamarack Pond also indicates that the fields adjacent to the stone house were extensively cultivated. Although the fields to the west of Continental Road are less clearly demarcated by stone walls, they too show signs of cultivation. In all but one of these former fields, Black Rock Forest has planted pine trees.

Those families living in the Chatfield house supplemented their agricultural income with woodcutting. The lack of an extensive stone wall system in the fields to the west of Continental Road suggests that this area might have been less intensively farmed than others, and therefore could have served as a woodlot instead. The hill descending from what is today the Black Rock fire tower would have been a prime area for skidding logs down to Continental Road, which at the time was the main transportation network throughout this mountain region.

⁹⁶ The location of the Chatfield homestead is noted on Black Rock Forest Compartment X Map, Black Rock Forest Archives, Cornwall, New York.

⁹⁷ A description of this journey was printed in Cornwall paper in 1875 and reprinted by *The Cornwall Local* (Cornwall, New York), January 10, 1957, p.3.

⁹⁸ Black Rock Forest director Jack Karnig, Chatfield Property File, Black Rock Forest Archives, Cornwall, New York.

⁹⁹ Babcock, interview with author, 20 May 1995.

¹⁰⁰ According to Beach, the Chatfield farm extended on either side of Continental Road. Lewis Beach, *Cornwall* (Newburgh, New York: E.M. Ruttenber Publisher, 1873), 108.

¹⁰¹ Black Rock Forest director Jack Karnig, Chatfield Property File, Black Rock Forest Archives, Cornwall, New York.

During the mid-1800s the Continental Road, which bisects the Chatfield homestead, was in fact the only existing transportation route over the mountains between West Point and Newburgh. Although the construction in 1868 of Old West Point Road led to the gradual abandonment of the Continental Road, the occupants of the Chatfield place nevertheless continued to witness a steady stream of travelers passing through their property. In 1875, for instance, a Cornwall woman journeying by carriage with her family to West Point published an account of her trip in the local newspaper. "We came to the house of Mr. Wm. Chatfield," she wrote. "The house was built of fine large granite split out of the rock on which the house is built." After enjoying a lunch of ham and eggs, with coffee and wild strawberries for desert, the travelers from Cornwall asked the Chatfields if many other people stopped at this mountain home for meals. "Why, you know I am a farmer, and not a hotel-keeper," William Chatfield is reported to have said. "Yet we are willing to accommodate any genteel people who come to view our mountains, with such plain fare as a farmhouse affords." Those living in the Chatfield place, therefore, also supplemented their income from farming and woodcutting by providing board and perhaps sometimes rooms to travelers.

Map 12

¹⁰² Anonymous article in the Cornwall papers, 1875, reprinted in *The Cornwall Local* (Cornwall, New York), January 10, 1957, p.14.

SITE #13: THE JOE HULSE PROPERTY

Adjacent to the Chatfield place, the Joe Hulse homestead was a middle-sized farm prior to the creation of Black Rock Forest. ¹⁰³ In fact it is somewhat difficult to determine where the Chatfield place ends and the Hulse fields begin. The large witness tree which now stands at the intersection of White Oak and Continental Roads seems like a probable marker delineating these two properties. It might be that during the Kronkite era of the mid-1800s these two properties were combined. In any event, the foundation of the Hulse's home is still evident just southwest of the intersection of Hulse Road, Continental Road, and Sutherland Pond Road, which was constructed directly through the homestead. The Hulse barnyard appears to have been located directly behind the house (the Hulse front door faced south towards the Chatfields), just on the other side Sutherland Pond Road. The Black Rock Forest pine plantings in the field between this barnyard and the Hulse home, as well as the rock walls and the pile of stones along this field's edge, indicate that this area was farmed by the Hulses. The region to the south of the foundation all along Continental Road also appears to have been cultivated by the family. The stone wall bordering Continental Road, and the Black Rock pine plantings throughout this quite large field, suggests that this area too was put under the plow.

Map 13

¹⁰³ The location of the Joe Hulse place is noted on Black Rock Forest Compartment V Map, Black Rock Forest Archives, Cornwall, New York.

SITE #14: THE BEARMORE PROPERTY

The Bearmores, whose farm was located between White Oak and Continental Roads along what is now a runoff stream from Sphagnum Pond, were neighbors of both the Chatfields and the Hulses. Here again, it is difficult to determine where the Bearmore property ends and the Chatfield's begins. The line of four witness trees just west of the runoff stream from Arthur's pond seems a likely property line between these two homesteads. Little evidence exists, however, of the Bearmore farm. Remains of one field lie just north of where White Oak Road crosses the Sphagnum Pond runoff stream. The walls bordering this field, and the pile of stones along its edge built-up over the years as the Bearmores plowed-up rocks from the soil, both indicate that this enclosure was used for agriculture. The cleared land to the west of this field, which is now a marsh, could also have been cultivated by the Bearmores. The open area just east of the four witness trees which delineate the boundary between the Chatfield property and that of the Bearmores' was also probably either farmed or cleared for cordwood. Because they seem to have maintained few agricultural fields, the Bearmores must have relied heavily on this cordwood cutting to supplement their income.

Map 14

¹⁰⁴ The location of the Bearmore property is noted on Black Rock Forest Compartment VI Map, Black Rock Forest Archives, Cornwall, New York.

SITE #15: DR. BEATTIE'S CABIN

The remains of Dr. Beattie's cabin are located east of Hall Road along the Sackett Trail. ¹⁰⁵ The cabin's foundation sits atop a large, twenty-foot high stone outcropping directly above a tributary to Cranberry Brook. The cabin's chimney, which includes both stones and bricks, appears to be of more recent origin than most of the other man-made structures in Black Rock Forest. The wooden trunks which were laid out to support the cabin's walls, also suggest that this property was occupied at a later date than most of the other settled areas in Black Rock. The stones lying in a pile near the entrance to the cabin seem to have been left over from the construction of the chimney or foundation rather than cleared from any nearby farm fields. In fact the mature forest surrounding the cabin, and a complete lack of stone walls anywhere on the property, indicates that this land was not used for farming or woodcutting by the Beattie's. Instead, the cabin was believed to be visited only on weekends by Beattie and his family during the warmer summer months. ¹⁰⁶

Map 15

¹⁰⁵ The location of Dr. Beattie's cabin is noted on Black Rock Forest Compartment XXXI Map, Black Rock Forest Archives, Cornwall, New York.

¹⁰⁶ Babcock, interview with author, 20 May 1995.

SITE #16: THE HALL PROPERTY

The Hall property is located at the bottom of Hulse Road near the Black Rock gate on Route 9W. 107 The lands of this farm actually spanned across Route 9W and were connected with the property that is presently the site of the Black Rock Forest Headquarters. 108 As with several other homesteads throughout the forest, two sets of structural remnants from different eras are still visible upon the landscape. The extensive network of stone walls date from an earlier period around the turn of the century when the Halls still owned the property. The young growth and lack of rocks within the fields of the southern portion of the property indicate that these lands were under cultivation long before Stillman created Black Rock. Although the cleared lands to the west as far as the Continental Road lie outside the forest boundary and are now privately owned, they too were probably farmed by the Halls. Their home was also most likely located in this area. As one moves northward down Hulse Road, however, the terrain steepens to a grade that would have made agriculture more difficult. Here, in these northern fields bordering Route 9W, logging may have taken precedence over farming. The steep grade of the landscape would have been suitable for skidding logs while Route 9W would have given the Halls easy access to local timber markets. Although it is unknown whether the Halls practiced such logging, there is no doubt that after the creation of Black Rock Forest these lands were extensively cutover. According to locals who had worked for Stillman, the old tarpaper shack in the northern portion of the property and the cement floor of a woodshed are all that remain of the sawmill and wood storing area built by Black Rock in this location. 109

Map 16

¹⁰⁷ The location of the Hall property is noted on Black Rock Forest Compartment XXV Map, Black Rock Forest Archives, Cornwall, New York.

¹⁰⁸ Babcock, interview with author, 20 May 1995.

¹⁰⁹ Buster Babcock remembers cutting logs for Black Rock at this sawmill and storing the timber in a this nearby shed. Babcock, interview with author, 20 May 1995.

SITE #17: THE UPPER RESERVOIR BROOK DAMS

The outlet stream from the Upper Reservoir was the site of various land use practices both before and after the creation of Black Rock Forest. Evidence of several pre-Stillman dams are still visible along the length of this brook. Approximately half way up the road leading to the chlorinator lies the most impressive of these sites. Here, where the stream runs fastest, are the remains of a dam along with other structures suggestive of out-buildings that may have been used to harness the adjacent water power. Behind this dam, and others built all along this stream, a pond was most probably used for ice making during the winter and as a swimming and fishing hole during the warmer months. Peck Pond was one such body of water. The Black Rock pine planting located between the above-mentioned dam and Route 9W suggest that this area was formerly cultivated or logged. Because of the clearing's proximity to both the dam site and the Black Rock sawmill located only a quarter-mile downstream, it is most likely that this clearing was formerly cutover for timber production. The cement and stone dam lying downstream from this pre-Black Rock site appears to be of more recent origin.

¹¹⁰ Babcock, interview with author, 20 May 1995.

LESS NOTEWORTHY BLACK ROCK SITES

The Coon Den:

Located just north of the Chatfield Trail and east of John Odell's property, the "Coon Den" is actually a fairly large cave formed by an overhanging stone outcropping. The soot-blackened roof of this cave indicates human use of this area. The name of this site also suggests that it was used by locals while coon-hunting at night, a common practice among those living in the region before the creation of Black Rock Forest.

The Bark House:

Supposedly located just west of Jim's Pond Road between the Satterlee property and John Odell's farm, the Bark House is noted on several early Black Rock Forest maps. ¹¹² No remains of this site were found, nor other documentary evidence supporting its existence.

The Beehive House:

Supposedly located just southwest of the intersection of Continental and Bog Meadow Roads, the Beehive House is noted on a number of early Black Rock Forest maps. It is believed to have received its name because of the many families who occupied the house one after another.

¹¹¹ The location of the "Coon Den" is noted on Black Rock Forest Compartment IX Map, Black Rock Forest Archives, Cornwall, New York.

¹¹² The location of the Bark House is noted on Black Rock Forest Compartment XIX Map, Black Rock Forest Archives, Cornwall, New York.

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