Changes in the Park: A Study of the Ecological and Cultural Transformations Associated with the Creation of Bear Mountain State Park

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When the rising waters behind the new Pine Meadow Lake dam began lapping at his front porch on February 15, 1936, Ramsey Conklin and his two sons left their 29 acre farm, which had been run by their ancestors since 1661, and moved their belongings to an abandoned schoolhouse in nearby Ladentown, New York.¹ This incident in a symbolic way encapsulates the changes accompanying the creation of Bear Mountain-Harriman State Park (hereafter referred to as Bear Mountain State Park). Most importantly, the episode illustrates that two communities, not one, were in fact affected. The more obvious community is ultimately the human one, represented by Ramsey Conklin and his sons. Yet the local ecological community as well was influenced by the rising waters of the park’s new Pine Meadow Lake, and in a manner more dramatic than that experienced by the Conklins. Whereas Ramsey and his sons were able to pack their belongings and leave the area, the majority of the ecological community was sedentary and therefore perished in the ensuing flood.

In a more general sense, the Conklin event illustrates the ever-changing relationship between humans and their environment. In this case, an environmental change (the rising waters of a lake) caused a cultural change (the abandonment of a family farm). Yet cultural changes can also result in ecological transformations. The creation of a state park, for instance, can lead to the flooding of what was once an open meadow. It is this changing relationship between humans and their environment that can be used to help explain both cultural and ecological transformations.² Changes in the landscape, then, can be read as
historical texts, similar to more orthodox evidence such as wills, court records, and census tracts.³

Workers at the Bear Mountain Trailside Museum, an official park bureau responsible for tracking local history and wildlife, along with local citizens interested in the six small communities displaced by the creation of the park, have worked with these more conventional sources to document the human history of the region.⁴ It is not my intent to synthesize their findings or rehash their theses. Rather I am attempting to write an ecological history which explains how the environment of the Hudson Highlands changed with the establishment of Bear Mountain State Park, and how these changes, in turn, affected the local human communities of the region. It is my hope that such a history will transcend the examination of isolated human experience found in most historical analysis, and expose the interrelationship between these experiences and the natural environment.⁵

Before analyzing the changes which occurred between the ecological and human communities of the region when Bear Mountain State Park was created, we must first define the term “community” in both human and ecological contexts. The human communities being examined are the six rural hamlets of the Hudson Highlands that were eventually displaced by Bear Mountain State Park. These include the small villages of Sandyfields, Johnstown, Doodletown, Baileytown, Queensboro and Ramsey Conklin’s Pine Meadow. Although here examined primarily because of their location within the present-day 46,000 acre park, the residents of these communities shared more than mere geographic proximity. The few hundred inhabitants of each of these small towns also shared a common lifestyle supported by community institutions including schools, churches, small general stores, and ultimately cemeteries. Similarly, the ecological communities, defined here as ecosystems, were composed of a series of shared relationships between species inhabiting a specific environment, in this case also the present day park.⁶ Therefore, while residents of the six hamlets shared institutional resources, members of these ecosystems shared natural resources including water sources and food supplies.

The setting of a state park for this sort of approach provides a unique opportunity for historians. Many studies already document the ecological deterioration of ecosystems due to the onslaught of industrial development. Yet few examine the opposite trend, the impact of land preservation on the local ecological communities. And of these, none I have encountered examine the effect such ecological changes have on the local human populations.⁷ It is for this reason that Bear Mountain State Park proves a worthy case study. Because many residents of the six displaced hamlets were granted life rights to their land when the park was created in 1910, some were present when the ensuing ecological transformations were taking place all around them, literally right in their own backyards.
(the last residents left their land in 1965). Another reason for such a study is that the impact of Bear Mountain State Park on these ecological and human communities was not an isolated or unique event. Community members in what are now Yosemite, Adirondack, and Mammoth Cave National Parks, among others, were also displaced after being given life rights to their land. They, too, experienced ecological changes when their communities were incorporated into the public domain. A study of Bear Mountain State Park and the changes it wrought to both the ecological and human communities within its boundaries, therefore, will profit many beyond its borders.

Even before Bear Mountain State Park was created, the local ecological and human communities of the Hudson Highland region had dramatically influenced one another. In the mid-seventeenth century when colonists first settled the region, which lies approximately forty-five miles north of New York City on the western shore of the Hudson River, they encountered Delaware, Hackensack, Raritan and Tappan Indians, as well as a landscape of diverse ecosystems. The topography of the region was primarily responsible. Mountains ranging from 1,000 to 1,400 feet rose sharply from the tide level of the river, and their steep slopes, composed primarily of solid rock and talus (loose rock), made plowing not only impossible but pointless. Even in the region's less rugged valley areas, the soil proved too gravelly and shallow for widespread farming. Fortunately for these settlers, however, the region was rich in timber and iron ore, which was said in 1909 to be scattered throughout the hills in "considerable quantities." The early residents, then, encountered a landscape that, although already shaped by Native Americans, tended toward a natural patchwork of diverse ecological communities arranged randomly on the landscape. Unable to rely solely on agriculture, these early settlers were therefore forced to adapt to the rugged, diverse environment by developing a varied economy based on small scale independent farming, minor household production, and intense cordwood cutting.

The few hundred early residents of the Hudson Highlands relied primarily on subsistence farming for most of their nutritional needs. Throughout the nineteenth century almost all of them maintained cleared fields or garden plots where they grew potatoes, cabbage, rutabagas, beets and other vegetables to be eaten during season or stored in root cellars for future consumption. Residents also planted fruit trees including apple, pear, peach and plum, and maintained domestic animals such as horses, cows, pigs, and egg-laying hens. Fresh milk, cream, butter and eggs, therefore, were normal fare for these early residents. The hunting of venison and game birds, wild berry picking, and fish from a favorite spot called "Wide Hole," which abounded in bass, pickerel and perch, added variety to the local diet.
Because farming alone was unable to provide an adequate living for the typical nineteenth-century Highland family, residents supplemented their agriculture with small scale household production. Both men and women were producers, carving wooden bowls, spoons, ladles, and trays during the long winter months, after the intensity of the harvest had subsided. Woven baskets called "bочек", originally used to haul charcoal down from the mountains, were also manufactured at home from thin splints or local reeds. Residents later bartered these goods for staples at village stores within walking distance of the homestead, or sold them outright to store owners such as Pincus Margulie of Ladentown (outside the park boundaries), who shipped the products down the Hudson River to New York City for sale.

Although carving bowls and weaving baskets helped secure extra funds for many Highland residents, the cutting of trees and the selling of cordwood and charcoal to local iron and brickmaking furnaces was the primary source of family income throughout the early nineteenth century. When iron was first discovered in the region in 1742 by Peter Clinton, the thickly forested hills were thought to be an inexhaustible source of fuel. The early settlers, therefore, feverishly cut cordwood, made it into charcoal through an elaborate burning process, and sold it to the nineteen iron mines that were quickly established within the present-day park boundaries. The brickmaking kilns of nearby Haverstraw, which at the time were supplying New York City with many of its bricks, were also fed with Highland wood. During the nineteenth century, then, the local residents harvested much of the Highland forests at least twice, and in some areas three times. And because few cordwood cutters made any attempt at reforesting, large portions of the mountains had been denuded by the early twentieth century. Without a constant supply of wood to feed the furnaces' insatiable appetite, and because cheaper sources of ore were now accessible from Pennsylvania and the Great Lakes region, most of the local ironworks began extinguishing their fires by the 1880s, with the result that during the next thirty years as the trees in the region entered a period of unmolested regrowth, the human population withered as people moved on in search of a better income.

Some areas of the Highland forest, however, managed to escape the woodcutter's axe. Again, economic concerns were primarily responsible. Trees far removed from local transportation networks, which at this time consisted of primitive dirt roads and mountain trails, were simply not economically profitable. As William Thompson Howell, one of the most prolific hikers of the region at the turn of the century, mentions in his diary one year before the establishment of the park, "the locals by reason of location or otherwise, would not pay for their falling. Here and there, also, in 'coves', as the forester terms them—deep pockets or ravines in the hills—are splendid stands of virgin woods."
Thus, because of the rugged terrain of the Hudson Highland region residents developed a diversified economy reliant on a variety of natural resources. Soil and water for small garden plots and fields, local reeds for basketmaking, and timber for cordwood cutting were all necessary to local residents for economic survival. As one citizen of Sandyfields said of her grandfather's lifestyle just prior to the creation of the park:

He never worked for another man's wages, always buying, selling and making items such as baskets that could be sold. They used the horses to plow, drag logs, and pull wagons and sleds... They cut wood and sold it to the brickyards. 21

Local residents, then, looked to natural resources as necessary commodities to be utilized for personal gain. This practice, in turn, had profound implications for local ecosystems. By clearing fields and cutting trees during the nineteenth century, the local residents slowly replaced the random patchwork of diverse ecological communities endemic to the Highland landscape before their arrival with a more regular and ordered pattern of gardens, pastures, and meadows. Even the stands of virgin forest became somewhat ordered, as they only existed in certain types of terrain that were inaccessible to humans. The original random patchwork, then, had been replaced by a more ordered ecological mosaic when in 1910 Bear Mountain State Park was created. 22

The impact of the park on the local communities, both human and ecological, has its roots far downriver in Fort Lee, New Jersey, where at the turn of the century the campaign to save the majestic Palisades cliffs from being stripped for stone began. Exploitation of the Palisades, which rise dramatically from the shore across the river from Manhattan, began in the mid-nineteenth century, when trap rock companies began blasting talus from the cliffs to be used for ballast in ships. Destruction of the cliffs intensified during the later part of the century, when New York City's burgeoning construction industry put a premium on crushed stone for macadamized roads and concrete skyscrapers. Concern for the Palisades arose in New York City during the 1890s, but it was not until 1899 that the New Jersey Federation of Women's Clubs successfully brought a bill through the state legislature that allowed the governor to appoint a commission with the power to protect the cliffs from further destruction. When New York Governor Theodore Roosevelt responded in turn by appointing a similar commission in 1900, the Palisades Interstate Park Commission was formed, and by Christmas eve of that same year had bought the first piece of property along the cliffs from the Carpenter Brothers quarry just north of Fort Lee, New Jersey for $132,000. 23
Because this commission would add Bear Mountain State Park to its jurisdiction a decade later, it is necessary to understand the commissioners’ vision of the park they set out to establish in 1900. On the one hand, the commission wanted to protect the Palisades’ wilderness quality. The body’s seventh annual report clearly illustrates this point: “It is the aim of the commissioners to preserve the present forest growth in all its natural wildness and beauty, and precautions have been taken for its protection from cutting and forest fires.” On the other hand, the commissioners clearly linked the success of the park to the number of visitors it attracted. Evidence of this can be seen most concretely in the annual report for the following year:

The time seems to have arrived, in the opinion of the Commission, when the policy of the State toward the development of the whole park as now contemplated, in order to make it available and useful to the public in the future, should be definitely defined, and upon this policy as so defined will largely depend the success of the future undertakings in the newly added territory.

These seemingly contradictory goals, of preserving the wildness of the land while ensuring public access to it, were not unique to the commissioners’ early vision of the Palisades. At the same time these men were internally discussing the role of public land along the shore of the Hudson River, the entire nation was debating the role of wild land throughout the country.

With the closing of the American frontier and the rise of industrial urban areas during the 1890s, the idea of wilderness in the American mind underwent a dramatic transformation during the late nineteenth and early twentieth centuries. Whereas before this period wilderness had been associated with evil, danger, and hostility, by the turn of the century appreciation for it had spread from a relatively small group of Romantic intellectuals to become somewhat of a national cult. Support for wilderness during this period is illustrated by the creation and rising popularity of such outdoor organizations as The Appalachian Mountain Club in 1876, and the Sierra Club in 1892, and by the designation of the nation’s first national and state parks (Yellowstone in 1872 and Adirondack in 1885). Also indicative of this intellectual shift was the way in which negative terminology usually reserved for wilderness was being transferred to the new urban environment. Wild nature, it was now believed, not only provided a perpetual frontier, but more importantly served as a medicinal escape for America’s urban masses. As Frederick Law Olmstead said in 1881, parks and preserves were a means of resisting “vital exhaustion,” “nervous irritation,” and “constitutional depression.”
This contradictory vision of wilderness, which combined a belief in protecting the wildness of nature while simultaneously utilizing it for human good, reached a national audience for the first time in American history in 1908, when in the aftermath of its most horrific earthquake the city of San Francisco petitioned the federal government to create a reservoir in Yosemite National Park's Hetch Hetchy Valley. Debate over this dam, among other things, destroyed the cohesiveness of America's early conservation movement by polarizing it into two competing camps, each promoting different beliefs concerning wilderness. Proponents of the dam, led by federal Chief Forester Gifford Pinchot, believed natural resources such as Hetch Hetchy should be developed and managed to benefit the public. Opponents of this "wise use" school rejected its utilitarianism, supporting instead a belief in the preservation of wilderness in a state unaltered by man. Chief spokesman for this faction was John Muir, responsible a decade earlier for the creation of Yosemite National Park. Muir and Pinchot's competing wilderness philosophies, therefore, embodied the inherent contradiction evident within both the turn of the century "wilderness cult," and the proceedings of the Palisades Interstate Park Commission. It is not surprising, then, that when the commission's jurisdiction was extended north in 1910 to include the Highlands region, the competing philosophies of both Pinchot and Muir so evident in the commission's early annual reports were also transported upriver.

Such was the case when Mary W. Harriman donated 10,000 acres and one million dollars to New York State on January 5, 1910 to help establish a public park in the Hudson Highland region. New York Governor Charles H. Hughes, in expressing gratitude to Mrs. Harriman, also expressed a vision of the park infused with Gifford Pinchot's ideology. "There can be no worthier benefaction," the governor declared, than "to create a public park, at the very door of the metropolis, where may be afforded opportunity for recreation and enjoyment ... Great will be the pleasure of the people at the announcement of your gift." For the governor, as for Pinchot, the park's primary function was to benefit the public. Not everyone, however, was as pleased with Mrs. Harriman's gift or the governor's vision of Bear Mountain State Park. Highland hiker William Howell, himself a New York City dweller, responded to the proposed creation of the park with less enthusiasm. "It is a fine thing that [the land] has been saved ... While offering congratulations on the consummation of these plans, its old-time friends may be allowed to shed a quiet tear of regret, however, on the passing of its wilderness aspect. The tract is to be turned into an immense recreation ground for the people of the cities, and will become a popular resort." Howell, then, endorsed a more preservationist view of wilderness similar to John Muir's.

How did these two competing visions affect the policy of Bear Mountain State Park? And even more importantly, how did the park's policy then influence the local human and ecological communities residing within the proposed park's boundaries? Part of the answer
lies in the status of those promoting these differing visions. In 1910 William Howell worked for the New York Telephone company, and, like Muir, was somewhat removed from positions of political power. Governor Hughes, on the other hand, like federal Chief Forester Gifford Pinchot, was politically influential and therefore able to promote more powerfully his utilitarian vision of the park. It should come as no shock, then, that the inherent contradiction evident within the Palisades Commission’s early annual reports had been partially resolved by 1910 in favor of development. Access to, and use of Bear Mountain State Park by the public would be the first priority of park administrators, while preservation of its wildlife would take on secondary importance.35 How these two policies would in turn affect the local ecological and human communities of the Highland region was at best a tertiary concern.

Facility development aimed at increasing public access to, and use of Bear Mountain State Park began immediately after the Harriman donation was finalized in 1910. Before the year was over, park workers had constructed a dock on the river in preparation for steamboat excursions from New York City. Numerous construction projects followed, including visitor comfort stations, refreshment stands, and administrative buildings as well as swimming pools, tennis courts, and a roller skating rink.36 A proposed escalator for the transportation of less agile visitors from the boat basin up the steep incline to the new playing fields was only reluctantly abandoned in 1920.37 That these projects succeeded in their goal of increasing the number of visitors to the park is evident in the jump in annual attendance from 50,000 in 1910, to 2.5 million in 1920, and again to five million by the end of 1940. Although too numerous to count, all of these development projects had two common characteristics. First, they tended to fall into three general categories, and second, all had a dramatic impact on the local ecosystems within the park.

One category of development, and that first undertaken by park officials, entailed clearing land and constructing facilities. This was begun in 1910 when park workers cleared trees and scrub brush from both the riverfront shore in preparation for the new steamboat dock, and also around Lake Hessian near what is now the Bear Mountain Inn. Park officials intensified this process in 1911 to make way for several roads, picnic areas, and a “great playground” (next to the Inn), and expanded it throughout the rest of the park during the following years, clearing open spaces for camping grounds, parking lots, and lakefront beaches.38 Along with stripping land for open spaces, workers also cleared areas that were subsequently built upon. This was also intensified in 1912 and 1913 when workers began construction on the new steamboat dock, as well as a public shelter and administrative offices.39 These projects were followed in later years by stone museums, the elegant Bear Mountain Inn (1915), and numerous other facilities built upon the recently clear-cut land.
The clear-cutting of forests and scrub brush throughout the park had a profound impact on the local ecological communities. Unlike the practice of local cordwood cutters, who usually selectively removed only mature trees from the land while sparing saplings for future harvests, park workers clear-cut entire areas. This practice caused substantial changes in the microclimates, hydrology, and soil mechanics of local ecosystems. Due to a lack of tree cover, soils in these clear-cut areas were exposed to more sun, thus making them dryer and hotter during the summer months. And because there was no forest canopy to block the wind, the soil on clear-cut lands was also cooler during the winter season. Lands cleared by Bear Mountain officials, therefore, were sunnier, drier, hotter, windier and colder than they had been before being cleared. Clear-cutting also increased water runoff and soil erosion. Thus, besides outright destruction of local trees and plants, by clearing the park was also altering their habitats, making it more difficult for certain species ever to return.

Road and trail construction was another category of development embraced enthusiastically by park officials, and which also had a substantial impact on local ecological communities. Workers laid the first of many roads in 1911, linking the main playground area near the Bear Mountain Inn with the new steamboat dock and the train station at nearby Iona Island. After purchasing its own stone crusher two years later, park engineers broke ground on Seven Lakes Drive, the main motor artery bisecting the park lengthwise. Road construction continued throughout the ensuing years, culminating in the 1947 grand opening of the four lane Palisades Interstate Parkway, which cut through the northeastern section of the park. The cutting of trails was also intense during these years. Although some trails were laid along existing mountain paths and dirt logging roads, such as the 1777 trail which is said to have been used by British troops during the Revolutionary War, most, like the trail blazed in 1912 from Hessian lake to the top of Bear Mountain, cut directly through the regrowing forests. By 1940, so intense had this sort of construction been that more than 200 miles of hiking trails and 100 miles of roads had been built across the Palisades Interstate Park, the majority of which could be found in the Bear Mountain State Park section.

This new transportation network, which greatly increased the number of byways throughout the Highland mountains, had an enormous impact on local ecosystems. In many instances the construction of roads, similar to the clearing of land, resulted in the destruction of specific ecological communities. Seven Lakes Drive, for instance, destroyed a pine grove near Johnstown in the southwestern section of the park, as well as a nearby wetland that was filled-in to create the roadbed. Roads also increased water runoff and soil erosion, and, again similar to clear-cut lands, changed the microclimates of certain areas. Yet the most dramatic effect that these new roads and trails had on the local
ecological communities was to decrease the amount of isolated wilderness within the Highland mountains. By crisscrossing the region, roads and trails made ecosystems that were once isolated and fairly stable more susceptible to floral and predatory invaders. Plants, as well as hikers, were transported on these newly constructed pathways. By blowing with the wind down a new road, or attaching to the pant-leg of a passing hiker, certain species were transported to distant and previously isolated ecosystems, where they dramatically changed the composition of the floral landscape. This is exactly what happened to the barberry bush along the 1777 trail, part of which runs from the great playground down to Doodletown. While planted around a few homes during the nineteenth century, the barberry has spread all along the trail as its seeds were carried by hikers as well as by birds nesting along the trail’s edge. Animals also traveled these new byways. Raccoons and hedgehogs, usually unaccustomed to inner mountain regions, used these new trails and roads to gain access to areas previously impenetrable. There they posed a new threat to isolated species such as migrating birds that were unaccustomed to such dangers. Larger ungulates such as deer were also endangered, as their foraging habitat was intersected by four lane divided highways.

Finally, the construction of dams and artificial lakes similar to the one that affected Ramsey Conklin was also part of the park’s development plan aimed at attracting visitors, and like clearing lands and building roads and trails, these also affected local ecosystems. Workers first enlarged a park lake in 1914, when they built three small dams near Lake Hessian which lies adjacent to the great playground. Officials continued this process of enlargement the following year when they constructed another dam on Cedar and Little Cedar Ponds that raised the water level twenty feet, resulting in one larger body of water now called Lake Tiorati. Along with expanding existing lakes, park engineers also created new bodies of water where none existed before. This was done in 1929 when workers constructed a dam near a swampy area in what was then Sandyfields to form Lake Welch. Park officials were so eager to provide visitors with summer swimming and fishing areas that by 1925 they had built twelve new lakes adding 3,000 acres of water surface to the park. And by 1935, when the Works Progress Administration oversaw construction of the park’s last dam across Stillwater Creek, twenty-two artificial lakes had been created, and most of the original fourteen natural bodies of water within the park had been enlarged.

These dams and artificial lakes, like cleared lands and trails and roads, dramatically altered the local ecological communities of the Hudson Highland region. The first and most obvious effect was again the outright destruction of local ecosystems, many of which had been extremely rare for the Highland area. This happened when the park created Lake Tiorati, which flooded a unique wetland of tufted grasses serving as the only known habitat within a fifty-mile radius for the short-billed marsh wren. Other bird species that had
dwelled along the edge of the marsh were also affected, including the yellow-breasted chat, the white-eyed vireo, the golden-winged warbler, and the snipe.50 The dams themselves also altered local ecological communities. The rip-rap style construction (loose fitting rocks) of the Turkey Hill Lake dam, for example, supported and sheltered a number of species which had been foreign to the area prior to the dam's construction. These new species included a type of lizard (Eumeces fasciatus), the northern water snake (Nerodia s. sipedon), large bullfrogs (Rana catesbeiana), and Andropogon grasses.51 Man-made lakes and dams also changed the species composition of water ecosystems throughout the park by disrupting normal stream and river flow, and by increasing evaporation rates by holding water in expansive, shallow lakes. Fish populations both above and below the dams, therefore, were extremely affected, as were leeches and water blooms whose populations exploded in these expanded bodies of water.52

Thus, the park's policy of development, aimed at increasing access to and use of the park, enormously affected the local ecological communities of the Highland region. Each of the three dominant categories of park development—the clearing of lands and the construction of facilities, the laying of roads and hiking trails, and the building of dams and artificial lakes—contributed to this ecological change in a variety of ways. And all of these ecological transformations, in turn, affected the local human communities, some of whose residents were still living within the park's boundaries well into the mid-twentieth century.

Many of the changes to these human communities were obvious. The clearing of large areas within walking distance of Doodletown, for example, altered the visual landscape of its residents. The construction of facilities also changed their auditory relationship with the environment, as summertime evening sounds of crickets and peepers were replaced by campfire songs and organ music from the nearby roller rink.53 New trails marked by gouged trees and painted rocks were another unmistakable result of park policy.54 And none of these remaining citizens could possibly have escaped being affected by at least one of the park's dams or artificial lakes that drowned swimming holes, drinking springs, and fishing spots, let alone entire towns, under thousands of acres of man-made water.

Yet the park's policy of development also resulted in more subtle changes to the local ecosystems. And although many park residents may have been only vaguely aware of these environmental variations, their lives were in fact being affected. The changing soil mechanics of land cleared by the park, for example, upset the natural balance of local ecosystems, resulting in slight soil temperature fluctuations, increased water runoff, and soil erosion, each of which may have affected local agricultural patterns upon which Highland residents had depended for centuries.55 New roads and trails built by the park were also making areas deep within the Highland mountains accessible to new species of
plants and animals, thus altering the living composition of the forest ecosystems and perhaps changing imperceptibly local hunting and berry foraging habits (locals continued to hunt although it was against park regulations). And finally, dams and lakes were undoubtedly affecting fishing populations, with the result that the once abundant local bass is today nearly extinct throughout the region.

Thus, one half of the contradiction evident in the early annual reports of the Palisades Interstate Park Commission, and in the wilderness philosophy of federal Chief Forester Gifford Pinchot, was in fact having an impact on the land and the locals at Bear Mountain State Park. This belief in utilizing the park as a natural resource for the good of the public was changing not only the local ecosystems of the Highland region, but also the local human communities. These changes caused by the park’s facility development policy, however, were only half of the Bear Mountain story. The other side of the contradiction evident within the commission’s annual reports, and present in John Muir’s preservationist ideology, was also being put into policy by Bear Mountain State Park officials, even if less enthusiastically so.

Park officials failed to initiate any wilderness preservation policy until 1914, four years after they had begun their facility development program. At this time they established a Forestry Department, which pursued a number of wildlife policies aimed at preserving the natural resources of Bear Mountain State Park. Such policies included the re-introduction of once indigenous animals such as elk, beaver, and a number of species of fish. Yet the area which came to dominate of the park’s wildlife policy was that of forest management. Upon recommendations from professor Franklin F. Moon of the New York State College of Forestry, the park’s Forestry Department embarked on a program of replanting trees, allowing existing forests to regrow, and preventing forest fires within park boundaries. While the aim of these forestry policies was to strengthen and preserve the local ecosystems, they also, much like the park’s policy of facility development, greatly affected the local ecological communities.

The park began its forest management program in 1914, when it removed thousands of dying chestnut trees (the chestnut blight was rampant in the area during this period), and replanted 400,000 white and red pine, larch and cedar seedlings. Reforesting was continued in 1915, when workers planted another 700,000 young trees, and intensified throughout the early history of the park. During this time park botanists even maintained a nursery near Doodletown in order to grow their own tree stock for dispersal in the region’s abandoned pastures and open woods. The Forestry Department was so dedicated to reforesting the Highlands that by 1936 it had coordinated the planting of more than three million coniferous trees within the present-day park boundaries. Department officials
also attempted to preserve the wildness of the Highland region by allowing the existing forest, which had been so dramatically affected by cordwood cutting, to regrow. This began in the early years when department officials, in response to flower-loving visitors who had seriously depleted the wildflower populations of the park, outlawed flower-picking and the cutting or injuring of trees.61 The forests of the Highlands, then, began an uninterrupted period of regrowth.

The Forestry Department’s policies of replanting and regrowth had an enormous impact on the local ecological communities. Most importantly, these policies altered the very composition of the Highland forests. Because the department replanted more than 80 percent of its seedlings in “pure plantations,” areas in which only a single species was introduced, these new forests had an entirely unnatural composition.62 Rather than various species interspersed with one another in a state of ecological symbiosis, the department’s policy promoted patches of only one species of tree. These pure groves were not only unnatural, but unhealthy, making individual trees within these plantations more vulnerable to disease.63 This happened in Bear Mountain State Park when many of the pure groves became infected soon after being planted by pests including the pine weevil and the larch saw fly.64 The artificial arrangement of planted trees in rows and columns also added to this unnatural composition, as did the Forestry Department’s decision to introduce non-indigenous species to the region. This was done in 1931 when workers planted 1,400 Japanese chestnut trees.

Along with plant recomposition, the animal life of the Hudson Highlands was also altered by the park’s policies of regrowth and reforestation. In some cases, the regrowth of the mountain forests resulted in the re-introduction of bird species. Examination of bird counts taken within the park by local bird enthusiasts suggest that many bird species were actually re-establishing themselves during the 1950s and early 1960s, after a 100 year hiatus from the region.65 The pileated woodpecker, for instance, suddenly increased in numbers within the park around 1949, after decades of scarcity. Turkey vultures, also not seen in the park since the 1920s, were sighted 75 times by 1964. On the other hand, the regrowth of much of the forest in the Highland region also resulted in the disappearance of many bird species reliant on broad, open spaces for feeding and breeding. The bluebird and the orchard oriole, for example, although commonly seen in local meadows and fruit orchards throughout the nineteenth century, were never sighted within the park boundaries between 1950 and 1975.66

Larger mammals were also affected by the park’s forest management policy. Because Ungulates, specifically deer, traditionally forage in early succession forests and clearings, the park’s policy of regrowth and reforestation deprived the local populations of food, with the
result that as the trees of the Highland region were allowed to grow, the local deer population shrunk. Many deer in fact were forced to forage beyond park boundaries, ending up in the backyards and meadows of nearby communities. Mice, squirrels, chipmunks and rabbits were affected in a similar manner by forest regrowth in the Highlands. Evidence of this change is supported by statements from Denzel Livingston, a lifetime Doodletown resident, who was forced from his home in 1950. While explaining that deer and rabbits were common to the area when he was young, Livingston said, “We rarely see a deer over in [the Doodletown area] now, and you don’t see rabbits there anymore. You really don’t see much of anything over there anymore.”

Finally, the park’s regrowth and reforestation policies also affected other less tangible aspects of the local ecosystems, such as water and weather patterns as well as soil composition. Whereas the clearing of land associated with the park’s facility construction programs resulted in sunnier, drier, hotter, windier and colder soil due to the lack of tree protection throughout the year, reforestation led to the opposite effect in areas experiencing regrowth within the park. And while clearing land for facilities also increased water runoff and soil erosion, the forests experiencing regrowth in Bear Mountain State Park held soil more firmly in place, thus decreasing the amount of soil eroding from the land. More healthy soil was also able to absorb more moisture, thus decreasing runoff. These ecosystems, then, were wetter throughout the year. And because the amount of runoff was less, streams and rivers in the regrowing Highland forests maintained a steadier flow throughout the changing seasons of the year.

Reforestation also changed the microclimates of these ecosystems. Although new forest growth had little effect on the larger atmospheric patterns of rain, wind, and sun, it did bring substantial changes at ground level in the way ecological communities experienced and responded to the weather. The forest canopy, in general, moderated temperature fluctuations, keeping the ecosystems of regrowing forests cooler during the summer and warmer during the winter than those of cleared lands. This temperature moderation also changed the way seasons were experienced in the Hudson Highland region. When the mountains were thinly forested during the nineteenth century the first considerable snowfall was quickly melted by the warming power of the sun, thus postponing the commencement of winter. Yet as park workers planted trees and allowed existing trees to grow, each season’s initial snowfall had a better chance of withstanding the sun’s rays. The snow in these thickly forested areas, therefore, covered the ground earlier and remained later each season, making winter appear longer.

The other aspect of the park’s forest management policy, fire prevention, was a radically new concept for the Hudson Highland region. Before Bear Mountain State Park was
created, fires were common to the area. In his diary entry for May 9, 1910, just months after the creation of the park, William Howell mentions a fire burning at the western end of Doodletown. After asking the owner of the burning land if he needed help extinguishing the fire, Howell says he, "found him but slightly interested. He was used to forest fires all his life, and didn't see that they did much harm." But park officials were concerned about such fires, and early on established an elaborate fire prevention system, consisting of four sixty-foot fire lookout towers, a host of fire trails throughout the park, and five gallon waterpumps installed in the trunks of every park vehicle.

This fire prevention program only exacerbated the changes to the local ecological communities caused by the park's regrowth and reforestation policies. Not only did fires such as the one William Howell encountered fail to harm local ecosystems, they were actually a natural and necessary phenomenon for healthy, mature forests. Most fires, while sparing large trees, burn dead and decaying woody material on the forest floor, turning it into nutrient-rich ash that the mature forest then uses. The burning of the forest floor also increases open forage areas for deer and other mammals. Thus the park's fire prevention policy actually decreased the biodiversity within park's boundaries. It also created an even more dangerous situation by allowing fallen material to accumulate, thus increasing the chances of a much more serious and devastating fire such as that which swept through Yellowstone National Park in 1988.

Thus, the park's policy of forest management, although taking a back seat to its policy of facility development, enormously affected the local ecological communities of the Hudson Highlands. And just as the ecological changes caused by the park's facility development program affected the local human communities, so did the ecological changes wrought by the park's forest policy. As the trees around them grew, the lives of the residents still living within the park boundaries also began to change.

The most obvious effect this forest policy had on local residents was to make illegal their reliance on cordwood for economic survival. Many were therefore forced to find jobs, often with the park. The growth of the forests also caused many local landmarks to become obscured from overgrowth, and sometimes lost forever. Such was the case with "Skedaddle Rocks," a cave formation lying east of Pine Meadow which contained cracks and crevices in which locals used to play and hide. After years of regrowth, James Starr, whose family had settled in the area near the Rocks, returned and was unable to locate them either on the land or on present-day maps, which, he added, "don't show things the way they once were." Even less obscure landmarks such as old cemeteries are now overgrown and lost in the Highland mountains. An early cemetery of the June family of Doodletown has not been seen for more than twenty years because of an impenetrable growth of barberry bushes.
Yet the park’s forest management policy also resulted in less obvious changes to the local ecosystems, and whether the local inhabitants were aware of them or not, their lives were changing as a result. Reforestation, for example, made trees in pure plantations more susceptible to disease, which could easily spread and infest residents’ fruit orchards. The policy of regrowth also altered the local ecosystems in a way that affected Highland residents. Thick forests resulted in less forage land for mammals such as deer and made ecosystems wetter by decreasing soil evaporation. The latter undoubtedly affected local garden plots and farms on the edges of regrowing woodlands. And fire prevention, while also decreasing the amount of open forest in which deer forage, prevented nutrient-rich ash from being used by local farmers. The elimination of fires, therefore, also altered the local residents’ hunting habits and farming patterns.

Thus the two contradictory sets of policies followed by the park throughout its early history—one aimed at developing facilities to stimulate attendance, the other at preserving local natural resources—polarized the ecological communities of Bear Mountain State Park. While facility construction in certain areas resulted in hotter soil during the summer months, reforestation programs in other sections caused the ground beneath trees to remain cooler during the same season. While roads and trails allowed predators to gain access to previously impenetrable areas of the woods, fire prevention policies actually decreased the area available to other animals deep within the Highland mountains. And while dams tended to interrupt the flow of streams and rivers above and below artificial lakes, regrowth in others areas allowed the soil to retain more of its moisture, resulting in steadier flowing waters.

This new ecological map, in turn, affected the local human communities of the Highland region. It replaced the nineteenth-century ecological mosaic of ordered fields, pastures, and cordwood groves, with a new bi-ecological landscape, divided between areas of high development even more ordered than that fashioned by pre-park residents, and areas deep within the mountains which were in fact less arranged. This change made the local residents’ subsistence lifestyle, based on small scale farming, home production, and cordwood cutting, more difficult to maintain. There is no doubt that in time industrialization and suburbanization would have forced the inhabitants of Baileytown, Queensboro, Pine Meadow, Johnstown, Sandyfields, and Doodletown to abandon their subsistence agriculture and home production of “bockies.” And it is probable that even if allowed to continue harvesting the trees which were “of sprout origin” in 1909, local iron and brickmaking furnaces would have extinguished their flames, as cheaper sources of fuel were discovered. Yet whereas the people of nearby New City, Haverstraw, and Ladentown controlled the development of their environment during this period through a process of
consensus and contestation, the residents of the six hamlets within the park boundaries were unable to do so.

This lack of self-determination was due to the fact that the changes affecting the ecological and human communities of the Hudson Highlands were being determined on an extra-local scale. On a state level, the Palisades Interstate Park Commissioners were controlling the changes to the Highland region. These men, most of whom resided forty-five miles away in New York City, were more concerned about establishing a refuge for the city’s masses than with people such as Ramsey Conklin. Yet the commissioners were also influenced by national forces, which during the early twentieth century were busy debating the role of wilderness in American society. Here again external ideologies did not coincide with those held by the people living in the Highland region. John Muir’s philosophy of preserving the wilderness in a state unaltered by man clashed dramatically with the view of nature held by the cordwood cutters and basket weavers of the Highland region. And although Gifford Pinchot’s desire to utilize natural resources may have approached the relationship Highland residents fashioned with their environment, his belief in using such resources for public benefit sharply contradicted their reliance on private gain.

Thus the changing landscape of Bear Mountain State Park can serve as an historical text, and like all texts, can be read on a number of levels. On a state level, the Highland landscape serves to highlight the controversy between city dwellers and rural inhabitants over the control and use of private and public lands. On a federal level it illustrates not only the emergence during the late nineteenth and early twentieth century of national interest in protecting wilderness, but also the ongoing debate between those who wanted to use nature for man’s benefit, and those who wanted to protect it from mankind. And finally, on a local level, the changes which occurred with the creation of Bear Mountain State Park illustrate that the decisions made on the state and national levels failed to take into consideration those being most affected.

John Muir and Gifford Pinchot didn’t know Ramsey Conklin of Pine Meadow, or Denzel Livingston of Doodletown. And the Palisades Park Commissioners didn’t seem overly concerned with the impact their policies would have on these people’s way of life. Perhaps correctly, they viewed the creation of a 46,000 acre public park only forty-five miles from New York City as more important than protecting the lifestyle of a few hundred families living in the Hudson Highland region. Yet what is unfortunate is that more care was not taken to make this transition easier for the local inhabitants. If it had been, maybe people like James Starr, the man who could no longer find his “Skedaddle Rocks,” would not only
be able to locate them, but would also be less frustrated with local maps that he now finds difficult to read.

Endnotes


4. While a number of short papers varying from 1 to 10 pages have been written on various aspects of these communities, I have failed to come across a full history of them.


7. One exception is L. Sue Greer’s “The United State Forest Service and the Postwar Commodification of Outdoor Recreation.” Greer, however, concentrates primarily on the human changes with respect to leisure accompanying the creation of Mount Rogers National Recreation Area in Virginia. Ecological changes and the way they impact the local human communities are for the most part left out of her analysis.

8. A paper on community displacement during the creation of Mammoth Cave National Park was given at the conference of The American Society of Environmental History at Carnegie Mellon University on March 4–7, 1993. This paper, however, failed to comment upon the relationship between displaced people and the local ecology.

9. F.F. Moon, “Report on the Highlands of the Hudson Forest Reservation,” Forest, Fish and Game Commissioner Annual Report (December 20, 1909), p. 219. For one year (1909) the Hudson Highland region was designated a forest reservation, thus falling under the auspices of the N.Y. Forest, Fish and Game Commission. The annual report cited, which includes the earliest wildlife survey of the region, had been unknown to Trailside Museum employees until I informed them of its existence. It will now serve as a basis for further Trailside wildlife research. All information on nineteenth century topography, soil composition, and timber and iron ore deposits taken from this source.


11. Frank Grippo, Sr., “Pine Meadow Stories My Grandparents Told Me,” oral history by M. Smelter Stevenot, Trailside Museum: Historical Papers, # H-29/91 (1991), p.2. These papers are a collection of approximately 150 essays, anywhere from one to five pages in length, written during the past three years by Museum employees, former residents of the five displaced villages, and interested local citizens. The essays vary in composition from formal researched histories to more informal reminiscences on life during the early park period. Taken together they give a solid portrait of the lifestyle of the local citizens living in the park up to 55 years after the park was established.


19. F.F. Moon, "Report on the Highlands," *Forest, Fish and Game Commissioner Annual Report* (December 20, 1909), p. 220. In 1909, one year before the creation of Bear Mountain State Park the forests of the Highland region were described by Moon as "of sprout origin."

20. William Thompson Howell, *The William Thompson Howell Papers*, (May 8, 1909) A personal diary located in the rare manuscript room, New York Public Library. The Howell diary is a 600 page manuscript complete with photographs and vivid descriptions of the region prior to the creation of Bear Mountain State Park. Much of the pre-park wildlife information was gleaned from this source.


37. New York State Palisades Interstate Park Commission, General Information Regarding the Palisades Interstate Park (Albany: J.B. Lyon Printers, 1920) This is a tourist pamphlet written for park visitors.
44. Myles, Harriman Trails, p. 468. Welch began his term as Chief engineer in 1912.
47. Information attained from Perk Stalter, former Doodletown resident, with whom I hiked down the 1777 trail on April 17, 1993. I was then fortunate enough to get a first-hand tour of what remains of the former hamlet.
49. Myles, Harriman Trails, pp. 341–396. All information from this paragraph taken from this source.
53. Denzel Livingston, who was born in Doodletown around 1930 and lived their with his wife Gracie until 1950 remembers hearing these and other sounds coming from facilities within the park. Oral testimony given by Denzel and Gracie Livingston to Neil Maher, April 19, 1993.

54. Denzel Livingston remarked that when he was younger he used to chop wood near the 1777 trail and he never remembers it being marked back then. Oral testimony given by Denzel and Gracie Livingston to Neil Maher, April 19, 1993.

55. Cronon, *Changes in the Land*, p. 123. Cronon here argues that clearing the land can cause changes in soil's reaction to weather.

56. Denzel Livingston mentioned that most of the local inhabitants of Doodletown who hunted regularly before the park was created, continued after it was established and that park rangers not only often looked the other way, but were out hunting themselves. Oral testimony given by Denzel and Gracie Livingston to Neil Maher, April 19, 1993.


61. Frederick C. Sutro, "Conservation of Natural Resources in the Palisades Interstate Park," a paper read to the Ulster Garden Club, Kingston, New York, April 21, 1936. p.13. Unfortunately, there is not date for this action taken by the park.


63. This is the concept behind biodiversity which, among other things, states basically that a diverse environment is less susceptible to diseases and therefore healthier.


69. Cronon, *Changes in the Land*, pp. 122–125. All information from this paragraph taken from this source.

70. Cronon, *Changes in the Land*, pp. 123–125. All information from this paragraph taken from this source.


