Landscapes We Have Lost: Environment and History on Mount Desert Island

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Most readers of this journal share an abiding love of this beautiful island, and an interest in its history. Our purpose in this issue is to explore its environmental history in that spirit. The essays here do so in different ways, but always with a historical method that we share in common. A starting point is an idea of history that is not primarily about the past. It is about change. This approach links memories of the past to experiences in the present, and anticipations of the future—in ongoing processes of change and continuity.

One way to study historical change is to think of it as a mix of gains and losses. The environmental history of Mount Desert Island is a case in point. Some processes of ecological change in this small place have been driven by large causes that reach far beyond this island. Much recent writing by historians and scientists has tended to center on global patterns of environmental destruction in the modern era. Dominant themes are environmental pollution, atmospheric change, warming climate, rising sea levels, habitat destruction, and loss of species in plants and animals.¹

Other global trends are more positive. Two progressive waves of environmental change have had a major impact. The first wave was the invention of the national park as an instrument of environmental protection. The United States was first, with a series of steps that began in the early republic—the forgotten National Hot Springs Reservation in Arkansas (1832), the Yosemite and Mariposa Grant (1864), and Yellowstone National Park (1872). Australia, Canada, and New Zealand followed quickly with park systems. In the next century more than one hundred nations founded thousands of national parks. In many countries (Indonesia, Iceland, Bhutan) national parks comprise more than 10 percent of their entire land area.²

A second wave appeared in the form of major national legislation to improve the environment. In the United States, after a long period of small steps, this great movement began with the Water and Air Pollution Control Acts of 1948 and 1955. Thanks in large part to Rachel Carson and others of her generation, a great surge of environmental laws passed

through Congress from 1963 to 1994, during both Democratic and Republican administrations. In the years that followed, comparatively few large national environmental programs were enacted. But older reforms continued to operate. The American environment has improved remarkably in the past half century. Many nations throughout the world have been active in the same cause. Pessimists to the contrary, our contemporary environmental history centers on a complex calculus of loss and gain.³

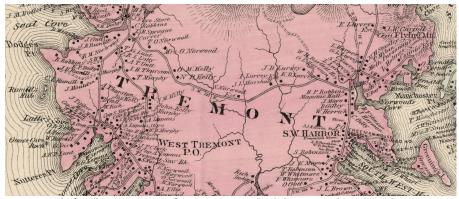
On Mount Desert Island, other patterns of environmental gain and loss are more local in cause and consequence.⁴ Among the drivers are its four self-governing New England towns. All are constructively engaged in ecological issues. Another powerful instrument is the creation of Acadia National Park and its continuing growth in size and strength, never more so than in our time. Other forward steps include the founding of three centers for scientific research and teaching: the Mount Desert Biological Laboratory (founded in Harpswell in 1898 and on Mount Desert in 1920), the Jackson Laboratory (1929), and the College of the Atlantic (1969). All have given attention to problems of ecology and have attracted environmentally-minded people who have had a positive impact on this island.

But while these gains were made, Mount Desert Island also suffered environmental losses. I'm thinking in particular of landscapes we have lost. They might be thought of as casualties of historical change. Some of these lost landscapes—and seascapes—were environments of extraordinary beauty. They were also ecological systems of high importance. In their number and variety, these lost landscapes and seascapes all contributed to the ecological diversity of this island. Let us consider a few examples.

Open Landscapes We Have Lost

In 1960 Samuel Eliot Morison (1887-1976) published a short memoir of Mount Desert Island. He took particular pleasure in remembering the broad extent of open land on the island in his youth. To test the accuracy of his recollections, he examined the very carefully drawn Colby-Stuart map of Mount Desert Island of 1887, which attempted to identify every occupied house here. Morison studied the Seal Cove Road, which ran from Seal Cove on the west side of the island to Norwood Cove in Southwest Harbor, a distance of about four miles.

He found farms with open fields and "twelve houses on the road from Seal Cove to Norwoods Cove, where there are none today [1960]." In 2015 it is possible to study the same area on Google satellite maps. A few more houses and other buildings appear within the village of Seal Cove, and many more in the town center of Southwest Harbor, but on the road between them there are no houses, no farms, and no cleared land—nothing but dense forest, except for a small stretch of open wetlands where the road crosses a stream-bed. Morison ran the same test on the Cape Road, with similar results. ⁵



Detail of Colby-Stuart Map of Mount Desert Island showing Seal Cove Road, 1887.

Courtesy of the Mount Desert Island Historical Society

In Morison's youth, open lands existed in great variety on Mount Desert. His fondest memories were for a particular pattern of open land along the granite coastline of the island in the late nineteenth century. "At that time," he remembered, "there was perhaps ten times as much cleared land along the coast as there is now [1960]. After the original growth had been cut off for timber or cordwood, a tract bordering the shore would be fenced on the land side and used as pasture." He added, "These rocky shore pastures had a beauty, to my way of thinking, far surpassing the massed groves of spruce and hardwood that the summer people allowed to grow up, after they bought these properties. The close-cropped grass, the purple rhodora and blueberry blossoms in June, the pink sheep laurel in July, the asters and goldenrod in August, growing around and between the decaying stumps, had a peculiar charm. Songbirds loved these clearings; one of my earliest recollections is hearing a flock of white-throated sparrows singing their 'Old Sam

Peabody! Peabody! in Captain Sans Whitmore's pasture, which is now a spruce forest." ⁶

Morison warmed to his subject, and added other types of open land that were very common on the island in his youth. "In almost every level spot on the island," he wrote, "farmers had grubbed out the rocks to make a hayfield since hay was their fuel for transportation and milk; but now these open fields, where the redtop and timothy grew mixed with all kinds of wild flowers, are a thing of the past. Hay is no longer wanted, and these fields too have reverted to wilderness." ⁷

Hay crops were of high importance in New England from the seventeenth to the early twentieth century. An urgent problem was to keep animals alive through a long winter, and hay was vital to that end. The quality of grass and the productivity of meadows were much discussed, and some of the most productive land on the island was put to this use. These meadows were carefully tended and often pleasing to the eye. Like the rocky shore pastures, they also had a unique ecology, with their own distinct pattern of flora and fauna.



"My Family at Somesville" by Louis Comfort Tiffany, ca. 1888. Courtesy of The Charles Hosmer Morse Museum of American Art, Winter Park, Florida © The Charles Hosmer Morse Foundation, Inc.

Today, a few open hay meadows are still to be found on the island. Several survive along the Crooked Road in the Town of Bar Harbor. Others can be found on the Beech Hill Road in the Town of Mount Desert, and at Cover Farm in Hull's Cove, and on Rockefeller lands in Seal Harbor. These open fields are increasingly valued by people who live here—all the more so, as so much of Mount Desert Island (and the state of Maine and the eastern United States) is now covered by dense forest.

Morison remembered these rocky shore pastures and interior meadows not merely as lost landscapes, but as another set of microenvironments that added to the ecological diversity of Mount Desert Island. He observed that they increased the variety of species, both of flora and fauna. But most of all he cherished these happy places for their beauty. He believed that Mount Desert Island had been impoverished, even diminished by their loss. And I believe he was right.

What might we do about them? We could mourn their passing, as "things of the past," and write about them in a mood of nostalgia. Or we could do something about them. We might be able to preserve and restore at least a few of these special places. Some of such work might best be done outside the boundaries of the national park. A model program is that of the Peggy Rockefeller Farms, two parcels of about 125 acres on Norway Drive in Bar Harbor. In 2010 they were given to the College of the Atlantic and are being preserved and used in a dynamic way as living examples of open land.

Yet another lost landscape are the orchards in Maine and Mount Through the eighteenth and nineteenth and early twentieth centuries, the leading table-beverage in New England was apple cider, often fermented into hard cider, which kept well and packed a punch. Every morning, it is said, John Adams (1735-1826) liked to greet the dawn with a tankard of hard cider. The ethanol content was roughly equal to a triple martini. That was the way that John Adams started his day, and he was thought to be an abstemious man in that bibulous era. The energy and drive of the early American Republic were fueled in part by hard cider. Also in demand were "keeping apples" that could be laid down in dry sand and preserved through a long New England winter. Most farms raised apple trees that flourish in this region, even on some of the granitic soils of Mount Desert Island. Winter-hardy peaches and pears also do well, sometimes better. Even today, ancient gnarled trees that were planted in the nineteenth century still bear fruit. An apple tree was planted near an old French country house of Madame Marie Therese de Cadillac de Gregoire, who inherited a title to half the island from her grandfather, the sieur de Cadillac. Her French country house and apple tree still survive in Hull's Cove, above a long narrow riparian field that runs at right angles to the water's edge, like so much land in New France.

Many landowners on this island cherish old fruit trees on their property. On Baker Island, four miles southeast of Mount Desert Island, at the entrance to Frenchman Bay, some of the first Gilley and Stanley families planted apple trees when they settled there. Today, Gilleys and Stanleys continue to increase and multiply on Mount Desert, and the old apple trees on Baker Island are still bearing fruit. Remnants of other old orchards still survive near Sand Beach as well, on the Satterlee land that belonged to Louisa Morgan Satterlee, daughter of J.P. Morgan. She devoted some of her great wealth to the preservation of open land now grown over. But most of the old orchards of Mount Desert Island are gone. They are another landscape we have lost. Orchards, like hay fields and rocky shore pastures, contributed to the aesthetics of the island, and to its variety.

If we could recover some of these lost landscapes they might bring other gains as well. A major effort in this direction has been mounted by Todd Little-Siebold, a professor of history at the College of the He has organized courses such as History 3040, History of Agriculture: Apples, and observes that "It's a history that has basically disappeared. You would have no idea that apple farming was a part of everyday life here. We're learning the story of what happened to these orchards, what happened to these farms, and thinking about what rural Maine might look like again some day."8 With his students he has led a program to renovate three old orchards, all planted in the nineteenth century, and now part of the college's Beech Hill Farm. Other students have surveyed the island for surviving apple trees. Maine farmers planted as many as twenty thousand named varieties of apple trees, and for a time they were a major export crop to trans-Atlantic markets. Most of these apples are rare today, but many are not extinct. specimens have been found and identified by apple historians.

They are also being rediscovered in another way by commercial orchard growers who are deeply interested in their properties. Todd Little-Siebold is demonstrating that the recovery of old apple trees and the restoration of abandoned orchards not only contributes to the beauty and diversity of Mount Desert; it also is of increasing value in

contemporary agriculture and nutrition in the world today. We are all gainers by this recovery of yet another landscape we have lost.⁹

Within the national park system, units called National Historic Parks have been growing more active in the creative management of agricultural landscapes that we have lost, with a respect for history as well as ecology and aesthetics.

Several parks have been preserving orchards or planting replacements. One example is Minuteman National Park in Concord and Lincoln, Massachusetts, where a very creative Superintendent Nancy Nelson and the great historian-ecologist-farmer-forester Brian Donahue have been replanting orchards on old farms along the Battle Road. Another is Shiloh National Military Park in Hardin County, Tennessee, where a peach orchard that was in bloom during the battle in 1862 has been replanted several times. A third is Gettysburg Military Park in Pennsylvania, where the National Park Service and the Gettysburg Foundation have replanted thirty-five apple orchards, and the Sherfy Peach Orchard on the battlefield.

Acadia National Park has been administered not as a historical park but more as a wilderness park with a different mission. Increasingly, friends of Acadia have suggested ways in which these two roles might The Park itself and some of its leaders have been moving in that direction. For many years the National Park Service has sponsored a large and very active program to "maintain and restore resilient landscapes." An example within Acadia is the restoration on Baker Island, where the oldest light station in the area was established in 1828. The island's 124 acres were farmed and grazed so intensively that nearly all its trees were gone by the 1930s. The last year-round inhabitants left after World War II, though at least two homes were occupied in the summer. Through the next half century the island was taken over by a spruce forest of astonishing density, which claimed 90 percent of the island. By 2012 the lighthouse and other old buildings were engulfed in a great spruce sea to a height of 60 feet. That year the National Park Service found evidence of "extreme fuel buildup." It acted under the national program to "maintain and restore resilient landscapes" and to reduce the danger of destructive wildfire that could destroy all the buildings on the island. The plan was to cut hundreds of densely packed coniferous trees, clear the thick growth and forest litter by controlled burning, and create large grassy spaces around the buildings and old orchards with long views and more open areas. The Park Service proposed to do the work with private contractors, but the bids were four times above budget. It called for help from the community, and many people pitched in. The Forestry Program at the University of Maine, the College of the Atlantic, the Bar Harbor Whale Watch Company and others helped with volunteers, boats, and materials. The work was done safely and with high success. An evaluation found that "the resulting defensible space on Baker Island created an aesthetically pleasing landscape that is less vulnerable to wildfire." ¹⁰

A follow-on question is how to manage these open landscapes after they have been restored, and how to do it in a dynamic way. An answer is suggested by a model program in Weston, Massachusetts, a denselywooded town with the highest income per capita in its state. Some of its affluent residents liked to have open fields around their houses, and loved to see sheep safely grazing there. After they cleared the ground, and made it into a pasture, Brian Donahue rented them sheep and portable fences. For an extra fee he added the services of a ram. At the end of the season, he rounded up the sheep and grass-fed lambs, sent some of them to market, and returned the profit to his business. Such a program would meet many obstacles in other environments and it would be difficult on Mount Desert Island, with more predators and park regulations. But the model of Brian Donahue's entrepreneurial approach to environmental preservation might be widely useful in a heuristic way. It could inspire us to invent other imaginative ideas for the recovery of landscapes we have lost—for rocky coast pastures, inland hayfields, salt meadows, heirloom orchards, peat bogs and other microenvironments—and for their dynamic preservation, at no cost to the taxpayer.

Forest Landscapes We Have Lost

Even as forests have rapidly overgrown much of coastal Maine, we have also lost particular varieties of woodland landscapes of great beauty and value. The forests in what is now the northeastern United States were very diverse before European settlement. Some large areas of old growth forests had been comparatively little disturbed by human intervention. They existed in great variety. Forest vegetation varied broadly with moisture levels, temperature ranges, elevations, soil-types and specie-mixes. Tom Wessel writes of Mount Desert Island, "I know

of no other area where so many different forest and outcrop communities were woven so tightly together. . . . Nowhere else have I experienced a landscape with so many different textures in so small a space." Some of the most striking examples are treescapes on its mountain tops. From a distance, Champlain mistakenly thought that the mountains were bare. Some areas were thinly covered by beautiful small pitch pines of great age, twisted by wind and gnarled by wild weather into shapes like those of Japanese bonsai trees. ¹¹

At lower elevations much of the dense forest cover on Mount Desert tended to have multiple growth layers, with an overstory of many old trees, an understory of smaller ones, an abundance of shrubs, and much ground growth. The island also had large areas of peat that supported forests or savanna. Many of these old growth forests in Maine suffered catastrophic disturbances from fire, severe storms and blow-downs, and insect infestations. Some management policies in the National Park Service prohibited the removal of downed timber or forest debris, which reduced some areas of Acadia to an impenetrable abatis of forest litter, in the cause of wilderness preservation.¹²

Long before the Europeans arrived, the wooded landscapes of North America in the late sixteenth and early seventeenth centuries were also diverse in other ways. Early European explorers were very much surprised by some of the woodlands in eastern North America, which were neither a "virgin forest" nor a "forest primeval" of romantic imagination. Edward Johnson described the forests of Massachusetts as "thin of timber in many places, like our Parkes in England." It was much the same in Maine. On Captain George Weymouth's voyage along the Maine coast in 1605, his companion James Rosier explored the wooded countryside along the Penobscot River. "Surely it did all resemble a stately Parke," he wrote. The woods amazed him by their vast area, and huge trees, and most of all by a feeling of open space between the trees.¹⁴

These large areas of open woodland in northern New England had been actively managed by American Indians for many centuries, and in various ways. One method was the use of fire, burning the undergrowth at a particular time of year (often late November), which destroyed the undergrowth and left the large trees standing. In other places Indians used more intensive slash and burn methods to create fields—sometimes very large fields—for corn and other crops. Yet another method,

arguably more important than any other, was the systematic clearing of large areas for firewood, of which American Indians in northern forests had a great need.¹⁵

These managed woodlands of the American Indians had a different The understory of smaller trees was ecology from other forests. Mounds of leaves and rotting debris were cleaned out. Overhead, the woodland canopy tended to be more open, and more sunlight reached the ground. Grasses and smaller plants of many kinds tended to grow around the trees. At the same time, American Indians sought to manage these open woodlands as grazing and hunting grounds in a controlled and systematic way. They constructed large palisades and long runs to guide the movement of animals. In these managed woodland environments, Indians hunted animals, deer especially, by ingenious and highly organized methods. Champlain joined some of these hunts in Huronia. He observed, described, and illustrated the wooded Indian hunting grounds on the edge of Georgian Bay, where the climate and terrain were similar to those of parts of northern New England along the Gulf of Maine.¹⁶ There is much evidence of open woodland and Indian fire management on Mount Desert Island.

Many generations of forest-clearing from the early seventeenth to the mid-nineteenth century transformed the ecology of the region. The peak of deforestation came in Massachusetts, circa 1850, when as much as 70 percent of southern New England was stripped of its forest cover. The climax of forest clearing came later in Maine during the early twentieth century, and at a lower level. But coastal Maine was more similar to Massachusetts, and coastal islands were among the most completely cleared. Mount Desert itself lost its woodlands at a rapid rate. Some of the island's rugged terrain was not suitable to farming, but much of it was good for lumber and firewood. Photographs from the nineteenth century show that large parts of the island were rapidly stripped of forest cover.

Then, in the twentieth century, these trends reversed. New England farms could no longer compete with more productive agriculture in other regions. Towns and factories multiplied. Farms were abandoned, and open fields gave way to a new sort of very dense forest with a tangle of underbrush. By the end of the century 65 percent of land in Massachusetts and more than 90 percent of Maine were classified as covered by woodland or forest by the Department of Agriculture. ¹⁷

On Mount Desert Island the rapid spread of dense second-growth forest was reinforced by a natural disaster in the fall of 1947. A severe drought was followed by an extreme firestorm that destroyed the vegetation on seventeen thousand acres of the island. Hundreds of homes were destroyed and many were not rebuilt. A new forest cover grew back, in a rapid succession of dominant species, from poplar and birch to spruce and fir, and then to a mixed deciduous and coniferous forest. This new forest cover on Mount Desert became more extensive, denser, and less diverse.

At the same time, the woodlands on Mount Desert Island suffered a growing variety of "stressors," some global, others local. Among the most stressful factors were habitat change, water quality, pests and pathogens, air pollution from ozone, acid fog, mercury and heavy metals, sulfur and nitrogen deposition, invasive plants, over-browsing by deer, and damage by homo sapiens.¹⁸

Today, scientists believe that a particular danger for the woodlands of Mount Desert is the loss of species. Magnitudes and rates are uncertain, but it is clear that certain species have been disappearing. Of all the many plants that have been identified in Acadia National Park, about 20 percent are considered severely threatened. Some of the most cherished plants in the park are at risk, and some have disappeared altogether.¹⁹

Sadly, as the forest cover expanded on Mount Desert Island in the twentieth century, the most beautiful native forest flower in the North American forest disappeared from Acadia. It is a rare and much loved orchid of spectacular beauty, which botanists call Cypripedium reginae. Many people know it as "showy lady's slipper." Some Indians call it the moccasin flower. It belongs to a large family of lady slippers that are native to the North American woodland, as far north and west as Alaska, and as far south as Arkansas, and is the largest of these American orchids, with a long green stem, large oval leaves, pristine white petals, and a bright rose pouch, thought to resemble a lady's slipper. prefers open woodlands with mixed coniferous and deciduous trees, good sunlight, and moist clear ground. Where it finds favorable conditions, showy lady's slippers grow in clumps and bloom together in a spectacular display. In years past the flower grew on Mount Desert Island, but it became increasingly rare, and in 2014 was listed as lost from Acadia National Park. How and why it disappeared is not clear. Botanists in the U.S. Forest Service and the Minnesota Department of Natural Resources observe that this wild flower is threatened by change of forest habitat, a lack of moisture, and loss of sunlight as the forests grow more dark and dense. It is fragile, easily crushed by accumulating piles of rotting debris on the forest floor, often consumed by large numbers of white-tailed deer, and actively collected by people who do not realize that a showy lady's slipper is almost impossible to transplant from the wild. Nevertheless, collectors dig them up, and kill the beautiful thing they love.²⁰

The showy lady's slipper is gone from Acadia National Park, but happily it is not extinct in other places. While it is rare everywhere, many have recently been found in the Green Mountains of Vermont and other places in its very broad range from Maine to Minnesota, and north to many provinces of Canada. In the late 1990s, high school students in New Hampshire were able to cultivate showy lady's slippers by axenic culture from sterile seeds, and more recently the Vermont Lady Slipper Company has been propagating this plant and many others of the same family by *in vitro* laboratory techniques with high success.²¹

Could the National Park Service do something to bring back lady slippers in Acadia? The answer is yes, but it might require recreating some small landscapes that we have lost, and that run against the wilderness model. My wife Judy and I attempted such an experiment in a quarter-acre of woodland with mixed oaks, maples and a stand of very large white pine trees on our property in Massachusetts. Inspired by the English "woodpastures" we had known when living near Cambridge and Oxford as well as the practices of the Indians in the North American forest, we attempted to manage this small area as open woodland. Instead of using fire, we removed by hand a dense and ugly tangle of fallen timber, sickly trees, forest litter, and piles of rotting leaves. The result was more sunlight. Native grasses and wildflowers increased under the trees. To our delight, pink (not showy) lady slippers flourished there. We did not transplant them. Judy, a biologist, pollinated them with Qtips. At their peak, between thirty and forty pink lady slippers bloomed every spring, mostly in moist and sunny spots near the large pine trees. But we were absorbed in other projects, and the forest clutter returned, and the trees grew so large that the canopy closed in, the light diminished, and the lady slippers began to disappear. But a few still

remained, and we found that they did well in other tracts of open woodland on conservation land nearby.

It is certainly conceivable that something like our open woodland could be managed in Acadia National Park, at least in regard to lady slippers. The Park has room for many different wooded landscapes, and the more the better. The multiplication of lost landscapes could help to increase species diversity. It would also make for a more dynamic environment, and a more diverse ecology. In this way, we might encourage the growth of many different micro-environments on Mount Desert. An island that is already extraordinary for its diversity of terrain could become still more so. In the process we could recover wooded landscapes that we have lost. And maybe a showy lady's slipper will return.

Seascapes We Have Lost

With the pace of historical change in our environment, we have also lost seascapes, in a fundamental transformation of the maritime environment around Mount Desert Island. Over the past half century, I have talked with older people who lived here for many years. Their memories ran as far back as the late nineteenth century. They remembered that the sea around the island seemed busier than it is today. Once again, Samuel Eliot Morison supplied some helpful evidence. In 1837, an officer in the United States Navy visited the island, and reported to the Secretary of the Treasury that he counted "over 600 sail" in "Mount Desert Harbor" and its "inlets" at one time. Another observer counted "400 sail" that had come into Southwest Harbor to avoid a passing storm. Others found similar or larger numbers of vessels in waters around Mount Desert during the early and middle years of the nineteenth century.²²

The sea around us on this island had been busy for many centuries, even millennia. Evidence appears in the earliest written accounts and earlier in the work of archaeologists. Remains of ancient settlements of American Indians have yielded proof of much activity on the water as early as four thousand years ago. Archaeological digs on sites from Gott's Island, south of Mount Desert, to Ellsworth, twenty miles north, have turned up extraordinary materials. Among the artifacts are carefully carved stone plummets for fishing nets and lines; finely shaped stone knives and scrapers for cleaning and cutting fish; and barbs, toggles

and foreshafts for harpoons that would have been useful in hunting larger marine prey. Many of these tools were highly refined, and clearly the product of long development and extensive use. Excavated middens and trash pits also yielded evidence of the fish they caught. Most surprising were bones of large swordfish. We know from later evidence that swordfish pursued dense schools of Atlantic herring into coastal waters as recently as the nineteenth century. Some of the swordfish would have been bigger than Indian canoes. Clearly these ancient American Indians were active hunters, expert fishermen, and highly skilled mariners. They lived within a highly-developed maritime culture.²³

After the arrival of the first Europeans, Indians acted quickly to acquire their boats. In the Gulf of Maine, Champlain's seamen met the great Indian leader Membertou, sailing a European shallop with a crew of American Indians, and totems painted on their sails. They used their shallop to trade with Europeans at sea before they reached rival Indians on the coast. The coastal waters of North America were very busy even before European settlement. On Champlain's first voyage to Tadoussac in the St. Lawrence River in 1603, he saw an armada of more than two hundred Indian canoes, all heading for a tabagie or tobacco feast.²⁴

The first European inhabitants of Mount Desert were even more active on the water. Visitors in that era observed that virtually all settler families owned boats and used them for many purposes. Most boats were built on the island, a process that required collective efforts by family, friends, and neighbors. Nearly every family was engaged in farming, lumbering, and fishing—and did all of these things together. People who lived on an island had to be self-reliant, but it was no place for loners or stubborn individualists.

All of their activities involved work on the water. Throughout much of the Atlantic world, water was more permeable than land. Through much of the eighteenth and early nineteenth centuries, travel by boat was cheaper, faster, and easier in many ways than cross-country journeys.²⁵ Many of the first homesteads around Mount Desert Island were built not on the main island itself but on smaller isless that today seem very remote and difficult to access. Throughout the Atlantic world, from the seventeenth to the mid-nineteenth century, people and goods moved mainly by water. Mount Desert Island was not connected with

the mainland by a bridge until 1837. The more distant the destination, the greater was the advantage in time and money of travelling by sea.

The fisheries around the island were abundant beyond imagining, with little sign of declining stocks from the seventeenth century to the last two decades of the nineteenth century. By some accounts the cod was, incredibly, even more abundant in the Gulf of Maine, and even in Frenchman Bay, than on the Grand Banks. Well into the late nineteenth century, the waters off the island attracted entire fleets from southern New England without exhausting the huge abundance of fish. A sight to behold, and still to be seen in old photographs, was the Gloucester mackerel fleet of "a hundred sail of beautiful tall schooners, each carrying two gaff-topsails," sea-stained, salt caked, and battered by long service, all crowded together into Southwest or Cranberry Harbor, waiting for a break in the weather.²⁶

Other maritime traffic around the island was not about fishing. The waters around Mount Desert were a busy crossroads where Penobscot Bay met the Gulf of Maine. As a regional economy developed in the nineteenth century, many major commodities were sent to market by sea. Daniel Boorstin observed that much of New England's hard environment yielded a surplus only of rock and ice, but enterprising Yankees made a flourishing business from both of these unpromising materials. Mount Desert people opened more than thirty-five quarries on the island and sent blocks of granite to Boston and New York in specially designed two-masted stone boats.²⁷ Round cobblestones were harvested from the island's beaches and shipped to eastern cities. Blocks of ice were harvested from ponds and sent around the world in double insulated ice ships. All commodities went to market by sea.²⁸

The sea around the island was dangerous, as it still is today to unwary mariners. But it was much more dangerous in years past. There were comparatively few aids to navigation. The first navigational buoys on the coast of Mount Desert Island were authorized by Congress in 1838 at fifty dollars each. ²⁹ Morison recalled that in his youth "one found almost every few miles along the shore the wreck of a vessel that had missed her way in fog or darkness." Divers today are discovering more wrecks offshore where vessels lost their bearings in dense fog, or ran aground on unmarked ledges, or foundered in sudden storms. The island was ringed about by lifeboat stations on the coast, and they were busy places.³¹

All this was part of a maritime world that we have lost. It began to change in a new way, through a long process of transformation that continued from the late nineteenth century to the late twentieth century. One indicator appeared in the decline of fish stocks. The story of the cod fisheries is told in this issue by Natalie Springuel, Bill Leavenworth, and Karen Alexander. Much of its decline was due to more efficient fishing by larger boats on longer voyages. The increase in the catch and the decline of stocks developed together from the 1880s to the 1990s, and then collapsed. For other stocks, timing was different but trends were the same.

At the same time, Mount Desert Island was becoming more closely integrated with the mainland. In 1837 a timber drawbridge was built across the Trenton Narrows, though it worked so badly and was thought to be so dangerous that people preferred to travel by boat. It was replaced by a steel swing bridge in 1920, and then in 1957 Mount Desert Island was firmly connected with the mainland by a fixed span. The new bridge was built by the federal government as part of the national park. It is so broad and sturdy that most visitors are not aware that they are crossing a bridge at all. Goods began to move to the island almost entirely by land. The sea had lost its primary importance as a means of communication or transportation. The permeability of water and land had reversed.

Still, many people on the island worked in maritime occupations during the late twentieth century. Lobstering and boatbuilding continued to be important to the island's economy, and prominent in its identity. At the same time, the sea around the island gained a new importance as a place for recreation. Most vessels in the island's many anchorages were pleasure boats. Water sports such as canoeing, kayaking, sport fishing, and diving flourished. Another form of maritime recreation appeared in cruise ships that visited Bar Harbor. In 2014 their numbers reached one hundred forty and their season expanded to six months from the start of May to the end of October. Some of these ships were among the largest in the world, with as many as thirty-six hundred passengers. They anchored in Frenchman Bay for ten or twelve hours, and their passengers toured the national park by bus.

The island's economy boomed. Visitors to Acadia National Park increased. The Jackson Laboratory, the College of the Atlantic, and the

Mount Desert Biological laboratory all rapidly gained strength as major centers of learning and teaching. Other cultural institutions were doing well. The many summer colonies on the island were more diverse than ever, and most were flourishing. The sea around the island was an important part of all this activity.

But people with deep roots and long memories were conscious of an earlier maritime world that had been lost. A critical question concerned the revival of the fisheries. Lobstering was doing well, but danger signs were appearing even there. Many experiments were underway in fish farming, mussel cultivation, oyster farming, and scallop diving. But these were ventures on the margin. The central possibilities lay deep in the waters around Mount Desert Island and the Gulf of Maine. In H. L. Mencken's words, they remained a gigantic protein factory, as fertile as ever.³² The great question was how to rebuild a lost maritime world on a new foundation.

Some were more concerned with other issues. They remembered that the sea had been a school of strength and character for many generations of young people on Mount Desert Island. For the better part of three centuries, each generation had taught the next to sail and navigate and fish. The lessons learned were also about courage and resolve and fidelity. Others remembered that the challenge of the sea had taught islanders to strive together, to combine self-reliance with interdependence, to cherish the importance of family and community and faith and right conduct. People worried that all this was a world they were losing, if not yet a world they had lost. The great question was to how recover some of these ways of islanders in the past, when they faced the challenges of the sea.

An Historian's Thought for the Future

What useful lessons might we learn from these stories? The first is that losses in the past can never be regained. The second is that some good things in the past can be renewed, if we make the effort. In that way the past is full of possibilities for the future. It gives us a way of enlarging our purposes, of expanding our intentions. If we study history as change, the experience of the past helps us to know our minds about the future.

Notes			

¹ For surveys of the field by leading practitioners, see J. R. McNeill, Something New Under the Sun: An Environmental History of the Twentieth Century World (New York: W.W. Norton & Company, 2000); J. R. McNeill and Erin Stewart Mauldin, eds., A Companion to Global Environmental History (West Sussex, U.K.: Wiley-Blackwell, 2012); Alf Hornborg, J. R. McNeill, Joan Martinez-Alter et al., Rethinking Environmental History: World-System History and Global Environmental Change (Lanham, MD: AltaMira Press, 2007).

² Claude Lachaux, *Les Parcs Nationaux* (Paris: Presses Universitaires de France, 1980) is still the best global history of national parks. A current list of national parks, using the definition of the International Union for the Conservation of Nature, is carefully kept on an English wiki site.

³ For surveys of environmental policy, planning, and programs in our time see Norman J. Vig and Michael E. Kraft, *Environmental Policy: New Directions for the Twenty-First Century 8th Edition* (Thousand Oaks, CA: CQ Press, 2012).

⁴ For the environmental history of the region that includes Mount Desert Island, see the work of Tom Wessels, in *Reading the Forested Landscape: A Natural History of New England* (Woodstock, VT: The Countryman Press, 2005); *The Granite Landscape: A Natural History of America's Mountain Domes, from Acadia to Yosemite* (Woodstock, VT: The Countryman Press, 2002); *Forest Forensics: A Field Guide to Reading the Forested Landscape* (Woodstock, VT: The Countryman Press, 2010); and for his larger frame, *The Myth of Progress: Toward a Sustainable Future* (Lebanon, NH: University Press of New England, 2013), which is much more progressive, and more positive, than its title suggests.

⁵ Samuel Eliot Morison, *The Story of Mount Desert Island* (Frenchboro, ME: Islandport Press, Inc., 2001, reprint of 1960 edition), 49

⁶ Ibid.

⁷ Ibid.

⁸ Interview with Todd Little-Siebold, in Aislinn Sarnacki, "Exploring the American apple: New collaborative celebrates heirloom fruit," *Bangor Daily News*, September 7, 2008.

⁹ Rebecca Cole-Will, Todd Little-Siebold, and David Manski, "The Apples of Acadia: Conjuring Forgotten Agricultural Landscapes," *Friends of Acadia Journal* 18, No.1 (Spring 2013), 14-16; also Jill Piekut et al., "Apples," in *Sustainable Food Systems*, College of the Atlantic (Fall 2011), 8-9.

¹⁰ Andy Mitchell, "Acadia National Park, Maine; Cohesive Strategy—Maintain and Restore Resilient Landscapes, 2012; online at http://www.nps.gov.fire/wildland-fire/connect/fire-stories/2012-parks/acadia-national-park.cfm; also Fred Mason, a second report for 2013, with same address and web links.

¹¹ Tom Wessel, *The Granite Landscape*, 84, 78.

Mary Byrd Davis, ed., Eastern Old-Growth Forests: Prospects for Rediscover and Recovery (Washington, D.C. and Covelo, CA: Island Press, 1996), 6-7, 22, 119-20.
 Edward Johnson, Wonder-Working Providence of Sion's Saviour (1654), J.F. Jameson, ed. (New York: Charles Scribner's Sons, 1910), 85.

¹⁴ James Rosier, "True Relation of Waymouth's Voyage" (London, 1605) in *Early Voyages*, 384-85; online at www.american journeys.org/AJ-041pdf; for the identity of

the river as the Penobscot see David C. Morey, *The voyage of Archangell: James Rosier's Account of the Weymouth Voyage of 1605*, "A True Relation" (Thomaston, ME: Tilbury House Publishers, 2005).

- ¹⁵The best study of "prodigious" Indian firewood consumption is Brian Donahue, "The Native Ecological System," in *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven, CT: Yale University Press, 2004), 38-39, 46-50. ¹⁶ Henry Percival Biggar, ed., *The Works of Samuel de Champlain* 6 vols. (Toronto: Champlain Society, 1922-36), 3: 81-83; David Hackett Fischer, *Champlain's Dream* (New York: Simon & Schuster, 2008), 336-37.
- ¹⁷ The forestry service measured timberlands, which yielded lower estimates; agricultural statistics measured forest cover, which was more extensive. For discussion, see Andrew M. Barton, with Alan S. White and Charles V. Cogbill, *The Changing Nature of the Maine Woods* (Durham: University of New Hampshire Press, 2012), 108-13.
- ¹⁸ T.B. Harris, N. Rajakaruna, S.J. Nelson, and P.D. Vaux, "Stressors and threats to the flora of Acadia National Park, Maine: Current knowledge, information gaps, and future directions," *Journal of the Torrey Botanical Society* (2012), 323-44.
- ²⁰ Wayne Owen, "Showy Lady's Slipper (Cypripedium reginae)," U.S. Forest Service Rangeland Management Botany Program, http://www.fs.fed.us/wildflowers/plant-of-the-week/cypropedium reginae.shtml.
- ²¹ Vermont Ladyslipper Company's web site appears at http://www.vtladyslipper.com.
- ²² Morison, Mount Desert Island, 47.
- ²³ Ruth Moore, Diane Kopec, et al., *The Indian Shell Heap* (Bar Harbor: The Abbe Museum, 1994).
- ²⁴ Fischer, Champlain's Dream, 133, 159.
- ²⁵ On the question of relative permeability of water and land as historical variables (measured by travel times and costs), with revolutionary transformations in the early modern era, see Jacques Godechot and R.R. Palmer, "Le problem de l'Atlantique du XVIIIe au XXe siècle," in Relazione del X Congresso Internazionale di Scienze Storiche (Roma 4-11 Settembre 1955) 5: 175-239, Library of Congress.
- ²⁶ Morison, Mount Desert Island, 47.
- ²⁷ The number of quarries is from Steven Haynes and Juanita Sprague at the Maine Granite Industry Historical Society, Mount Desert, Maine.
- ²⁸ Daniel J. Boorstin, *The Americans: The National Experience* (New York: Vintage Books, 1965), 10-19.
- ²⁹ Morison, Mount Desert Island, 48.
- ³⁰ Ibid., 49.
- ³¹ Franklin Price, "An Inventory of Shipwrecks around Acadia national park," lecture, MDI Biological Laboratory, *Ellsworth American*, June 10, 2009; Zach Whalen,
- "Exploring the Shipwrecks of Mount Desert Island," https://www.kickstarter.com.
- ³² H. L. Mencken, *Happy Days* (New York: Knopf, 1936), 55.