Marsh’s Man and Nature at 150

David Lowenthal

Rightly termed “the fountainhead of the conservation movement,”1 Man and Nature was arguably the most influential work of its time. It was the first book to recognize the environmental perils of human agency, the first to assess the damage done, and the first to set forth a program of reform. Darwin’s On the Origin of Species transformed notions of natural change; Marx’s Kapital shown new light on economic and social change; Marsh’s Man and Nature exposed their profound and menacing interactions. Before Marsh, human impacts were largely thought benign improvements in line with God’s command to subdue the Earth and make it fruitful. Marsh praised the benefits, but deplored their adverse side effects, some intended and deliberate, others heedless and unsought, most increasingly damaging as technology magnified human impacts.

Man and Nature changed minds by marshalling a huge range of historical and scientific evidence, and its apocalyptic immediacy spurred worldwide reform. “Man has too long forgotten that the world was given to him for usufruct alone, not for consumption, still less for profligate waste,” thundered Marsh. For our own and for posterity’s sake we must mend our prodigal ways, “thus fulfilling the command of religion and of practical wisdom, to use this world as not abusing it” [1 Corinthians 7.31]. He summarized the impact of two millennia of misuse in the Old World:

[In] parts of Asia Minor, of Northern Africa, of Greece, and even of Alpine Europe, causes set in action by man have brought the face of the earth to a desolation almost as complete as that of the moon. The earth is fast becoming an unfit home for its noblest inhabitant, and another era of equal human crime and human improvidence would reduce it to such a condition of impoverished productiveness, of shattered surface, of climatic excess, as to threaten the depravation, barbarism, and perhaps even extinction of the species.2
And ongoing resource rapine in the New World, American and antipodean alike, more than mirrored Old World follies.

In country after country—the United States, Italy, France, Switzerland, India, New Zealand, South Africa—leaders inspired by *Man and Nature* legislated to protect natural resources. Deforestation, soil erosion, flooding, and desertification were the following century’s conservation reform targets. New and more daunting threats later emerged: chemical and nuclear contamination, species and ecosystem extinction, global warming. And as humanity’s destructions intensified, *Man and Nature’s* message became ever more relevant.

At first glance, Marsh (1801–1882) seems an unlikely conservation pioneer. He was a Vermont-born lawyer and legislator, a long-serving, gifted diplomat, esteemed as a philologist, historian, and littérateur. During three terms in Congress, Marsh helped shape the nascent Smithsonian Institution. As the American envoy to the Ottoman Empire in the 1850s, he got the United States to import camels to the arid Southwest as hardy beasts of burden. As ambassador for a record-breaking 21-plus years to newly unified Italy, he championed its political and religious freedom. Adept in 20 languages, he produced the first Icelandic grammar in English and inaugurated Scandinavian scholarship in America. Lecturing at Columbia in New York, he published two classic texts on English language and literature. He regretfully turned down a history professorship at Harvard. He bred sheep, ran a woolen mill, chartered a bank, quarried marble, crafted surveying tools, redesigned the Washington Monument, was America’s foremost authority on and collector of prints and engravings. He spearheaded New World archaeological salvage, international boundary conventions, deaf-mute teaching, and women’s rights.

Hailed today as “the last individually omniscient person in environmental matters,”

Marsh termed himself a mere dabbler in natural history. Insisting that *Man and Nature*

“makes no scientific pretensions and will have no value for scientific men,” he sought to interest “people who are willing to look upon nature with unlearned eyes.”

He traced his own nature tutelage to his Vermont childhood “on the edge of an interminable forest” then being logged for timber, fuel, potash, and sheep pasture. Marsh recalled “sitting on a little stool between my father’s knees” at the age of four or five, jolting along ridge-top roads in a two-wheeled chaise:

To my mind the whole earth lay spread out before me. [Father] called my attention to the general configuration of the surface; pointed out the direction of the different ranges of hills; told me how the water gathered on them and ran down their sides. What struck me, perhaps, most of all—he stopped his horse on the top of a steep hill, bade me notice how the water there flowed in different directions, and told me that such a point was called a *water-shed*. I never forgot that word, nor any part of my father’s talk that day.

Marsh’s watershed memory was rekindled seventy years later, when he arbitrated a boundary conflict between Italy and Switzerland north of Milan, riding on mule-back over an Alpine mountain pass in a driving downpour. The records of local administrative and
land ownership history reluctantly compelled Marsh to award the disputed area to Italy. As he stressed in his written decision, Swiss possession would have been far preferable: it would have unified control of the currently fragmented Cravairola watershed (“watershed” now denoting not a ridgetop separating drainage areas, but the whole gathering ground of a river system). For the contested area lay within a branch valley of the Swiss Val Maggia, long devastated by torrential erosion aggravated by deforestation, log flotation, and sluice-building for timber transport. “The steeply inclined soil, some 2500 acres, including the [Swiss] village of Campo, began to slide downwards in a body,” wrecking and damaging houses, reported Marsh in a subsequent edition of *Man and Nature*. The soil was now “so insecure that meadow and pasture grounds, which, if safe, would be worth a hundred dollars per acre, cannot now be sold for ten.” Marsh deeply regretted being denied an outcome that would have enhanced land management, promoted conservation, and benefited both claimants. The watershed was physically Swiss; it ought to be politically Swiss. Although bizarrely chided by a later Italian jurist for his “Freudian” fixation on watersheds, Marsh’s summary of watershed boundary desiderata is commonly relied on in international law today for the environmental benefits he cited.

For all its ultimate fame, *Man and Nature* was not at first widely appreciated. So little did Marsh fancy its prospects that he donated his copyright to a Civil War charity; friends and supporters bought it back as the first printing quickly sold out. Even so, only the appearance ten years later of a second edition, renamed *The Earth as Modified by Human Action*, made it highly influential.

Radically changed was not this 1874 revision, however, but how somberly Americans were by then reassessing their environmental prospects. “Marsh’s work is not a new one,” wrote a reviewer, but “it comes almost as new, to the American public.”

Twelve years ago, the matters Marsh treats were only of curious interest to us. Our woods: Were they not exhaustless? Irrigation: What need had we to bring lands under cultivation by artificial and expensive agencies, when the unsurveyed public domain amounted to fifteen hundred million acres, assumed to be all of the same exuberant fertility with the prairies of Illinois and Iowa? We have been brought very sharply to realizing our natural limitations. “The axe of the pioneer” has ceased to be the emblem of our civilization. We have seen the rapid extension of railways stripping the eastern half of the continent of its tree-covering, at a rate which threatens vast mischief to the nation. But sharper still has been the experience of the last twelve years in the settlement of that mighty West, toward which the star of empire was believed to be moving. We have seen population labor painfully up the incline from the Missouri westward. And we have learned, with dismay, that the unoccupied public domain is very far from being of the same high quality as the Genesee valley or [Ohio], Illinois, and [Iowa]. Stories of barren plains hundreds of miles in extent, of lava-overflows, sterile and forbidding, of regions swept by tornadoes, and devastated by winter torrents, of tracts in which naught but sagebrush or chaparral grows, and where nature is wilder than the Scottish Highlands—have now become
familiar. We no longer look to ‘the West’ as an exhaustless resource. Already the available lands remaining are computed by millions of acres, not hundreds of millions. Already we attribute most unwelcome changes of temperature and humidity to our reckless disturbance of the equilibrium of nature. Thus aroused by the necessity of husbanding resources, and of protecting their heritage from abuse and waste, a treatise so learned and popular as this can not fail to command wide attention.\textsuperscript{12}

Another transformative factor was public awareness of the West’s awe-inspiring scenery, whose splendors launched the bellwether of the national parks system at Yellowstone in 1872, foreshadowed by Yosemite as a state reservation in 1864. Famed by the passionate advocacy of John Muir, these seemingly pristine landscapes reversed American perceptions of wilderness, from loathsome impediment against glorious progress to sacred sanctuary against crass despoliation.

Two contrasting depictions of American landscape exemplify the reversal of wilderness taste. In 1837, America’s most popular historian, George Bancroft, compared the howling wilderness of the Hudson River Valley before European settlement with the cultivated scene of his own day. In 1607, Henry Hudson had seen “vegetable life and death mingled hideously together.”

The horrors of corruption frowned on the fruitless fertility of uncultivated nature. Reptiles sported in the stagnant pools, or crawled over mouldering trees; decaying vegetation fed seeds of pestilence. [But now, in 1837,] the earth glows with civilization; the banks of the streams are enamelled with the richest grasses; woodlands and cultivated fields are harmoniously blended. The thorn has given way to the rosebush; the cultivated vine clammers where serpents used to nestle; while industry smiles at the changes she has wrought, and inhales the bland air which now has health on its wings. And man is still in harmony with nature, which he has subdued, cultivated, and adorned.\textsuperscript{13}

To Bancroft, deforestation, the railroad, mining, and commerce spelled aesthetic progress and spiritual regeneration.

Seventy years later, the novelist John Fox’s bestseller \textit{Trail of the Lonesome Pine} drew the opposite conclusion. By then Bancroft’s symbols of triumphant conquest had become emblems of horrendous desecration. The logger’s ax and the hewn stump no longer signified civilized progress; they now bespoke the sullying of virgin nature. Despoiled by soulless loggers, Cumberland Gap’s once crystal-clear stream was laden with sawdust and “black as soot.” The novel’s protagonist, a mining engineer turned nature lover, vows to restore Lonesome Cove:

‘I’ll tear down those mining shacks, ... stock the river with bass again. And I’ll plant young poplars to cover the sight of every bit of uptorn earth. I’ll bury every bottle and tin can in the Cove. I’ll take away every sign of civilization.’

‘And leave old Mother Nature to cover up the scars,’ says his fiancée, June.
‘So that Lonesome Cove will be just as it was.’
‘Just as it was in the beginning,’ echoes June.
‘And shall be to the end.’14

Biblically ordained restoration redeems all: corporate greed vanquished, industrial poisons excised, nature left to heal herself, Edenic plenitude in eternal tranquility. In this new climate of romantic primitivism, part Thoreau, part Muir, Marsh’s pragmatic concerns were relegated to a humdrum realm of utilitarian practicality—“wise use.”

*Man and Nature*’s subsequent influence exemplifies our fluctuating crisis-driven conservation needs. Influential among fin-de-siècle foresters fearful of looming timber shortages, it regained prominence among soil conservationists in the dust-bowl 1930s. It resurfaced

again in the 1960s with Rachel Carson’s pesticide pollution texts, the catastrophic oil spill off the coast of Santa Barbara, and the polluted Cuyahoga River burning its way down to Lake Erie. The symposium *Man’s Role in Changing the Face of the Earth* (1955) and my 1965 reissue of *Man and Nature* made Marsh available to the Earth Day movement and the environmental reformers of the 1970s. Climate change and its perils today again foreground Marsh’s insights.15

Central to Marsh’s alarms and reform agendas was his view that ecological and societal problems and solutions were entwined and must be tackled in tandem. Here I discuss the salience of both for today’s world.

Marsh’s understanding of ecology, before the word itself was even known, was remarkably comprehensive. He realized that all organic and inorganic nature continually interacted. He stressed processual duration, noting that minute and seemingly insignificant changes, wrought by obscure infinitesimal creatures over many millennia, had laid down geological strata thousands of feet thick over vast areas. We ought not assume “a force to be insignificant because its measure is unknown, or even because no physical effect can now be traced to it.”16 He recognized that the complexity of natural processes, operating at diverse paces of change, made it impossible to predict the outcome even of familiar commonplace phenomena.

Most importantly, Marsh explained why human impacts differed both in kind and intensity from all other living beings. Unlike other creatures, human foresight and agency aimed at often temporally remote and tangential purposes: “the backwoodsman and the beaver alike
fell trees,” the beaver to eat their bark and build his den, the man to plant an olive grove for his descendants.\textsuperscript{17} And exponentially mounting technological might multiplied human impacts at hitherto unimaginable scale and speed.

A critical outcome of human agency was its disruptive impact on nature. Other organic and inorganic processes were in large measure either cyclical or repetitive and, earthquakes and volcanic eruptions aside, generally slow-paced, reverting to more or less stable conditions. By contrast, human impacts were long-lasting and often irreversibly transformative. Marsh instanced species extinction; soil exhaustion and erosion; the damming of water courses; the transfer of flora and fauna, diets and diseases, between the Old World and the New; revolutionary changes in Mediterranean oceanography wrought by the Suez canal. Moreover, industrial mankind’s population growth displaced other species and converted largely wild and untenanted areas into intensively used and urbanized spaces.

Not only were such changes massive and rapid, their outcomes were ever harder to gauge, their unforeseen consequences jeopardizing both nature and humanity. This made active stewardship all the more essential. Once transformed by human action, a locale required continual oversight. “In lands laid waste by human improvidence or malice, [man must] become a co-worker with nature in the reconstruction of the damaged fabric.”\textsuperscript{18}

To be a co-worker called for more than professional expertise. It demanded an informed citizenry who valued resource stewardship as both a personal and a collective good. Such citizens should be broadly skilled amatenurs like those of Marsh’s native and climatically demanding Vermont. The Green Mountain State’s largely rural inhabitants were of necessity omnicompetent pragmatists, alike self-reliant and cooperative. “Encyclopedic training” was needed by all, because “every man is a dabbler in every knowledge. Every man is a divine, a statesman, a physician, and a lawyer to himself.”\textsuperscript{19}

Alongside familiarity with nature and neighborly commitment, Marsh’s co-workers should ideally share attachments formed by long-term residence. He deplored “the restless love of change, which makes us [Americans] almost a nomad rather than a sedentary people.”

Incessant flitting is unfavorable for permanent improvements. It requires a very generous spirit in a landholder to plant a wood on a farm he expects to sell. But having begun a plantation would attach the proprietor more strongly to the soil, and have a greater value in the eyes of a succeeding generation, if thus improved and beautified, [serving as] a moral check against a too frequent change of owners. [Land] remaining long enough in one family to admit of gradual improvements would increase its value both to the possessor and to the state.\textsuperscript{20}

Moreover, gratitude for ancestral legacies ought to generate like-minded regard for heirs. Land stewardship, like Edmund Burke’s institutional partnership between the living, the dead, and those yet to be born, had to be a multigenerational effort.\textsuperscript{21} Listing the environmental “duties this age owes to those that are to come after it,” Marsh termed Americans especially beholden for the “toils and sacrifices of [our] immediate predecessors. We can repay our debt to our noble forefathers only by a like magnanimity, a like self-forgetting care for our own posterity.”\textsuperscript{22}
Those who worked the land should share equitably in both the benefits and the burdens of the resources they harvested and husbanded. Conservation was unworkable in a society marked by gross extremes of wealth and poverty: all alike must be stakeholders in woods and fields, soils and waters. Marsh’s harshest critiques were leveled at malefactors of great wealth, whose rapacious greed for private gain against the public good was gutting the nation’s natural resources even before the Civil War.

Companies have no souls; their managers no consciences. More than one American state is literally governed by unprincipled corporations, which not only defy the legislative power, but corrupt the administration of justice. Corporations become most dangerous enemies to rational liberty, to the moral interests of the commonwealth, to the purity of legislation and of judicial action, and to sacred private rights. The [lack] of all higher than pecuniary obligations is [due] more to banks and manufacturing and railway companies than to any other cause of demoralization.23

Marsh termed it the duty of government to steward the public interest against corporate avarice. “The popular apprehension of being over-governed, and more emphatically the fear of being over-taxed, has [led to] the general abandonment of certain governmental duties,” notably transport, communications, and banking. “No doubt these institutions by government are liable to great abuse. But the corruption thus engendered, foul as it is, does not strike so deep as the rottenness of private corporations.” Greedy plutocrats were savaged on the same page of Man and Nature as short-sighted wastrels who were “breaking up the floor and wainscotings and doors and window frames of our dwelling, for fuel to warm our bodies and to seethe our pottage.” Economic avarice and environmental waste were alike immoral and calamitous.

Yet Americans went on valuing land mainly as commodity, if not solely in terms of monetary profit. Distressed by the tawdry 1920s workaday scene, the legal scholar Austin Tappan Wright envisioned an alternative utopian “Islandia” that fused occupancy and utility with beauty and ethics. On an Islandian farm, Wright’s American visitor is stunned by its “suave serene beauty in the massing of a grove, a house, a field. Nowhere in the whole farm was there a place without charm.” Discussing whether to cut down some birch trees,

what interested the [owners] was the effect upon a certain view, rather than the value of the wood. They looked upon their whole farm as a great living canvas, to which they as artists made only little changes from time to time; for the larger picture was painted mostly by nature and by generations before them. No farmer merely farms but is an artist in landscape architecture as well.

They considered not only where crops grew best, but “how the field will look when they first come up through the earth, and when they are full grown, and when they are dead and when they are stubble. The art was neither agriculture nor architecture but a combination of both.”24 Wright’s Islandia became a cult classic for ruralist visionaries from Aldo Leopold to Louis Bromfield, Scott Nearing, and Carl Sandburg.
Marsh would have applauded Wright’s aim and imagery, if not his starry-eyed unworldliness. But the largely rural America that Marsh had inhabited and that Wright fantasized in memory is now irretrievably gone. Ever fewer of us dwell even on land that we farm, and are ever less likely to be its owners. The landscapes we mainly love are precisely the wildernesses where no one, or hardly anyone, lives at all, and to which we come not as natives but aliens. So desirable is such wilderness that since the passage of the Wilderness Act in 1964 we have restored ever more of it, turning terrain formerly farmed or grazed back to the untrammeled nature it has not been for centuries or, given Native American presence, even for millennia.

Attachment to wilderness has many virtues: it refreshes body and soul; it reminds us of a living plenitude whose loss we regret; it offers lessons in fortitude and self-reliance. But these benefits are necessarily scarce. Wilderness visits cannot be many or frequent; were they common the wilderness would be loved to death. Nor does the rare wilderness experience compensate for our neglect of, if not contempt for, the pervasive landscapes we fashion for lucre and shelter, traffic and transport. These are where we perform pass much of our lives: on the freeway and in the mall, alongside the detritus of industry and extraction, in the urban jungle. So indifferent, if not obnoxious, had the everyday American scene come to seem by the mid-20th century that the interstate highway system was famously built to let people drive from coast to coast without seeing any of it.\textsuperscript{25}

To achieve Marsh’s and Wright’s ecological and social visions, affection for our national parks and wildernesses must expand to embrace the everyday places we would better cherish were they made—and hence felt to be—worth cherishing. To prize only the rare and the remote is an unhappy legacy of the Book of Genesis, which saw the earthly paradise as the Garden of Eden. From Eden humanity was exiled into the desolate wilderness that was all the rest of the world. As Eden itself was inaccessible, substitutes were sought in delectable gardens for the sacred and the select. It is time to give up these exclusive Edens, along with the Rubaiyat myth that “wilderness is paradise enow.”\textsuperscript{26} To deify the isolated wilderness sojourn denigrates the everyday realms that ought to enrich and enliven our quotidian lives. As social beings we should reclaim our inherited landscape from humdrum neglect, and rejuvenate the ravaged world as a global garden.


\textbf{Endnotes}
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5. Marsh to Charles Sprague Sargent, May 16, 1879, UVM.
14. John Fox, Jr., *The Trail of the Lonesome Pine* (New York: Grosset & Dunlap, 1908), 201–202. A generation later, the National Park Service reified Fox’s fiction. In 1940 Daniel Boone’s Wilderness Road was resurrected as Cumberland Gap National Histori-
ational Park, the interstate highway undergrounded in a tunnel, the road through the park in 1996 antiquated back into a pioneer wagon track (Marianne C. Butcher, “Cumberland Gap: A Symbol of American Identity,” Honors thesis, Ball State University, 2002).


17. Ibid., 41.

18. Ibid., 35.


23. Ibid., 51–52.

24. Austin Tappan Wright, *Islandia* (New York: Farrar and Rinehart, 1942), 297–298. Written is the 1920s, *Islandia* was not published until ten years after Wright’s death. The Islandian ethos is realized on David Mas Masumoto’s central California farm: “My fields have become a crazy quilt of cover crops, a wild blend of patterns, some intended, some a product of nature’s whims. The different plants grow to different heights and in different patterns, creating a living appliqué. I weave the texture of life into my farm” (Masumoto, *Epitaph for a Peach* [San Francisco: HarperOne, 1996], 11).


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