

## Desegregating Wilderness

Jourdan Imani Keith

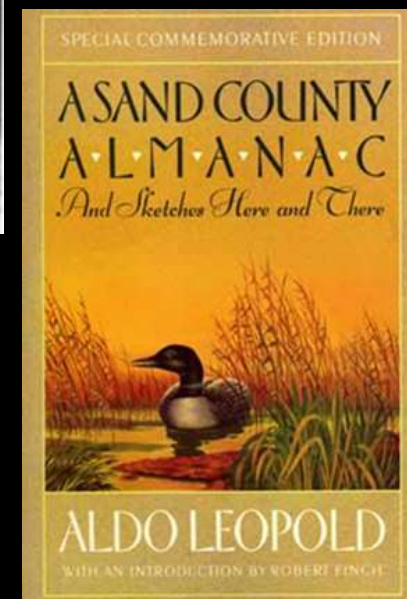
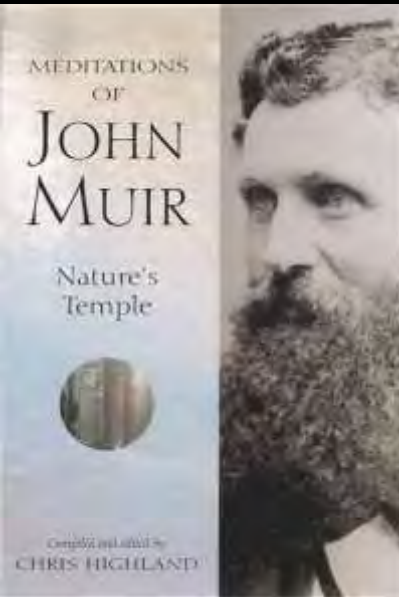
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Now largely white organizations and agencies are grappling with the dilemma of a segregated wilderness by working feverishly to get urban people out to remote places—because people will not protect what they have not enjoyed. But what if wilderness zigzagged through areas where urban people live? Then accessing the wilderness in our daily lives could be more tangible than wild shadows cast by memory.



# Saving American Nature: Preservation vs. Conservation

Kevin M. Anderson, Ph. D.  
Austin Water Center for Environmental Research



## Wilderness and the American Mind

### the howling waste of the wilderness

He findeth him in a desert land, In the howling waste of the wilderness. Deuteronomy 32:10

Outside the Puritan settlements there was nothing but "A waste and howling wilderness, where none inhabited But hellish fiends, and brutish men That Devils worshipped."  
Michael Wigglesworth (1631–1705)

### The Classical Wilderness and the City

Man ceased to be a wild animal the day he built the first wall;  
Man ceased to be a wild man only on the day when the Green Wall was completed, when, by this wall we isolated our machine-like, perfect world from the irrational, ugly world of trees, birds, and beasts.

- Eugene Zamyatin, *We* (1921)





Generally speaking, a howling wilderness does not howl: it is the imagination of the traveler that does the howling.

(Henry David Thoreau)

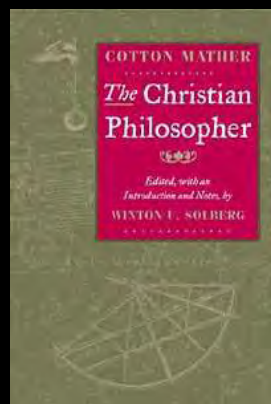


# Theology of Nature - Natural History as a Window into the Divine

Cotton Mather 1663 – 1728

*The Christian Philosopher. A Collection of the Best Discoveries in Nature, with Religious Improvements* 1721

“Natural Philosophers” were not a threat to religion but when properly construed they presented evidence of God’s perfection.



Edward Hicks 1780 – 1849  
*Peaceable Kingdom* 1826

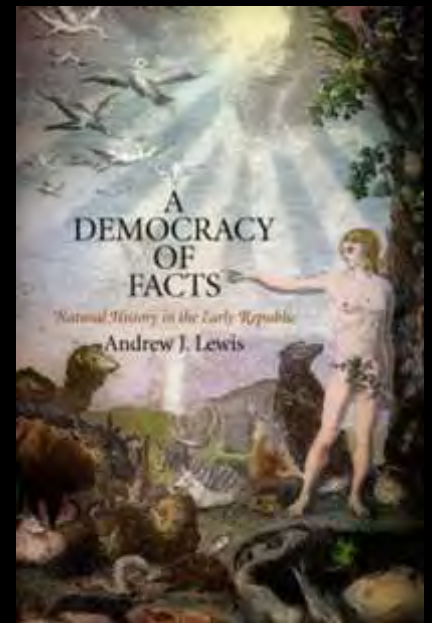


Image from  
*Natural History of the Bible*  
Thaddeus Mason Harris  
1793

Jonathan Edwards 1703–1758

*Images or Shadows of Divine Things* “The Beauty of the World” 1758

The beauty of the world consists wholly of sweet mutual consents, either within itself or with the supreme being...spiritual beauties are infinitely the greatest, and bodies being but the shadows of being, they must be so much the more charming as they shadow forth spiritual beauties. This beauty is peculiar to natural things, it surpassing the art of man



# American Nature and Self Actualization

Ralph Waldo Emerson 1803 –1882

“Nature” is an essay written by Ralph Waldo Emerson and published in 1836.

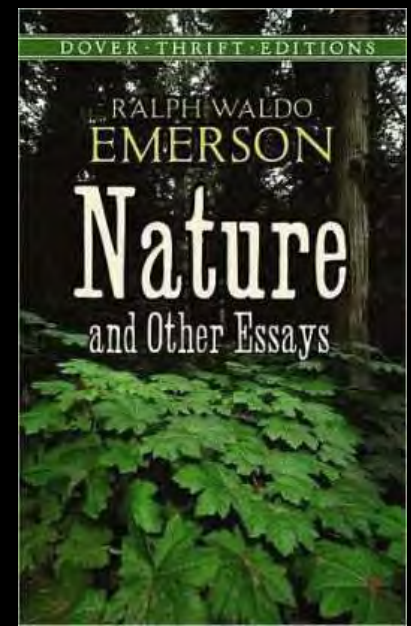
In this essay Emerson put forth the foundation of transcendentalism, a belief system that espouses a non-traditional appreciation of nature.

Transcendentalism suggests that the divine, or God, suffuses nature, and suggests that reality can be understood by studying nature.

“Nature is a language and every new fact one learns is a new word; but it is not a language taken to pieces and dead in the dictionary, but the language put together into a most significant and universal sense. I wish to learn this language, not that I may know a new grammar, but that I may read the great book that is written in that tongue.”

"There is little disagreement that Emerson was the most influential writer of 19th-century America, though these days he is largely the concern of scholars. Walt Whitman, Henry David Thoreau and William James were all positive Emersonians, while Herman Melville, Nathaniel Hawthorne and Henry James were Emersonians in denial — while they set themselves in opposition to the sage, there was no escaping his influence. To T. S. Eliot, Emerson's essays were an “encumbrance.” Waldo the Sage was eclipsed from 1914 until 1965, when he returned to shine, after surviving in the work of major American poets like Robert Frost, Wallace Stevens and Hart Crane.”

- Harold Bloom



# Transcendentalism

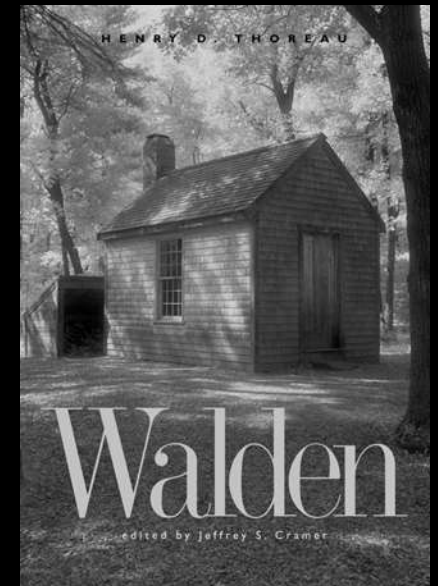
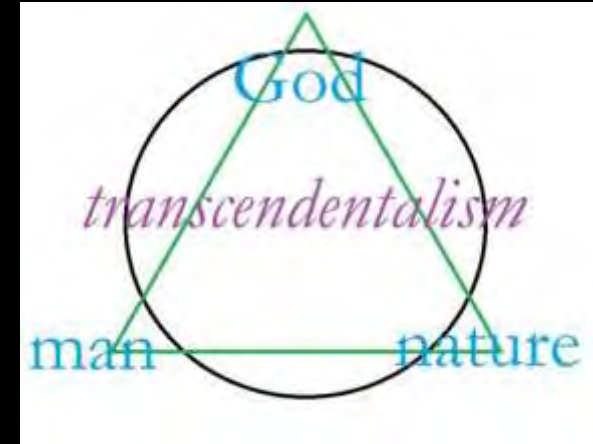
Transcendentalism is a religious and philosophical movement that was developed during the late 1820s and 1830s in the Eastern United States as a protest against the general state of spirituality and Protestant religion in America. Among the transcendentalists' core beliefs was the inherent goodness of both people and nature.

Nature is portrayed as a beneficent living force that can, if studied and understood through careful and intentional reflection, offer enduring lessons about what it means to be human.

It is through their intimate relationship with the natural world that they construct their own identities and their philosophies about how to live a right life in the natural world.

For Emerson, Thoreau, and Whitman, nature is viewed as possessing all the knowledge that man needs to know, if only he is attentive and willing enough to study its messages and apply them to his life.

Transcendentalists believed that society and its institutions—particularly organized religion and political parties—ultimately corrupted the purity of the individual. They had faith that people are at their best when truly "self-reliant" and independent. It is only from such real individuals that true community could be formed. Even with this necessary individuality, the transcendentalists also believed that all people possessed a piece of the Divine (God).





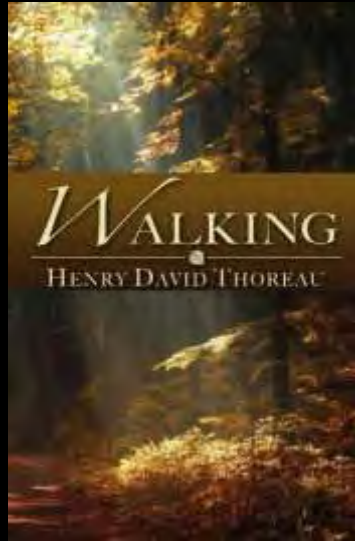
## American Nature – Individual Self Actualization, Wildness, and Wilderness

Henry David Thoreau 1817-1862  
from "Walking" (1851)

The West of which I speak is but another name for the Wild; and what I have been preparing to say is, that in Wildness is the preservation of the world. Every tree sends its fibres forth in search of the Wild. The cities import it at any price. Men plow and sail for it. From the forest and wilderness come the tonics and barks which brace mankind.

Life consists with Wildness. The most alive is the wildest. Not yet subdued to man, its presence refreshes him. One who pressed forward incessantly and never rested from his labors, who grew fast and made infinite demands on life, would always find himself in a new country or wilderness, and surrounded by the raw material of life. He would be climbing over the prostrate stems of primitive forest trees.

Hope and the future for me are not in lawns and cultivated fields, not in towns and cities, but in the impervious and quaking swamps.





# American Nature - Individual Self Actualization, Nature, and Democracy

Walt Whitman 1819-1892

## Song of Myself (1892 version)

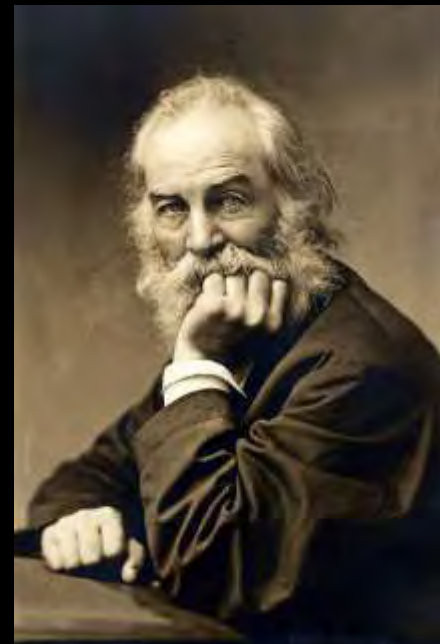
I celebrate myself, and sing myself,  
And what I assume you shall assume,  
For every atom belonging to me as good belongs to you.

I loafe and invite my soul,  
I lean and loafe at my ease observing a spear of summer grass.

My tongue, every atom of my blood, form'd from this soil, this air,  
Born here of parents born here from parents the same, and their parents the same,  
I, now thirty-seven years old in perfect health begin,  
Hoping to cease not till death.

Creeds and schools in abeyance,  
Retiring back a while sufficed at what they are, but never forgotten,  
I harbor for good or bad, I permit to speak at every hazard,  
Nature without check with original energy.


A child said, What is the grass? fetching it to me with full hands;  
How could I answer the child?. . . I do not know what it is any more than he.  
I guess it must be the flag of my disposition, out of hopeful green stuff woven.



# Transcendentalism vs. Conservation - John Muir 1838 – 1914

The clearest way into the Universe is through a forest wilderness.

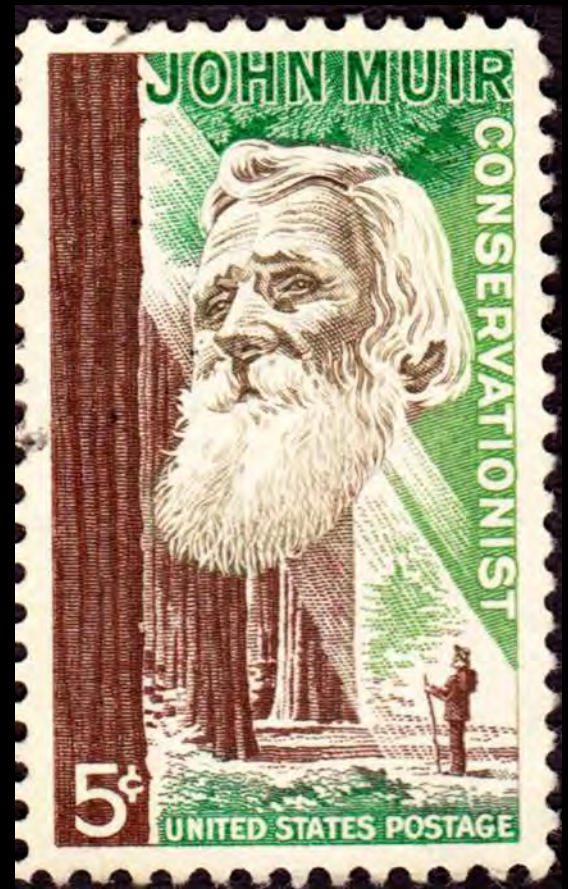
Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop away from you like the leaves of Autumn.



In God's wildness lies the hope of the world—the great fresh unblighted, unredeemed wilderness. The galling harness of civilization drops off, and wounds heal ere we are aware.

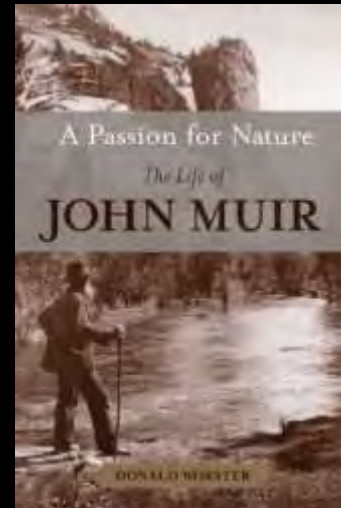
(John Muir)

izquotes.com



*"Keep close to Nature's heart... and break clear away, once in awhile, and climb a mountain or spend a week in the woods. Wash your spirit clean."*

*John Muir*



# Roots of American Conservation

George Perkins Marsh 1801 – 1882

American diplomat and philologist and “Prophet of Conservation”

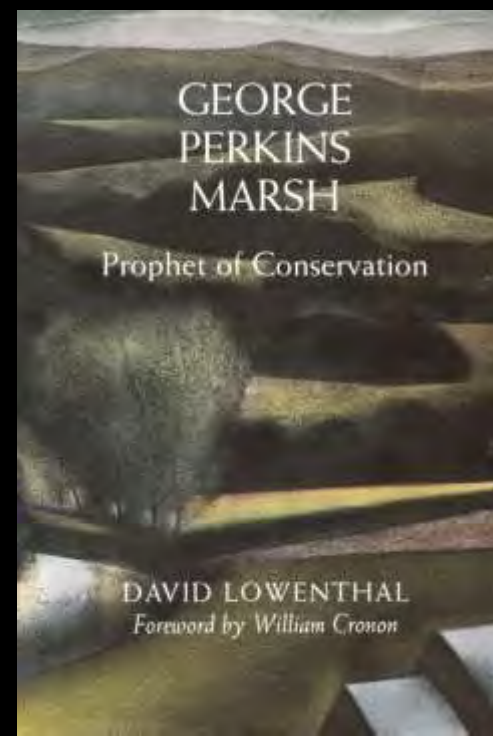
Marsh was born in Vermont, educated at Dartmouth College and taught Greek and Latin before becoming a lawyer and moving to Burlington, Vermont.

In 1839, he was elected to the U.S. House of Representatives and went to Washington, where he was a key figure in the establishment of the Smithsonian Institution.

Most known in his lifetime as a philologist. Knew 20 languages and wrote a history of the English language, championed Norse sagas.

Marsh began the diplomatic phase of his career in 1849, when he was appointed to serve as the Minister to the Court at Constantinople.

In 1861, Lincoln appointed him as ambassador to the Kingdom of Italy and he spent the rest of his life as ambassador in Italy.





In 1864 Marsh published

## *Man and Nature, or, Physical Geography as Modified by Human Action*

This remarkable text engendered worldwide awareness of the ill-effects of human agency, along with efforts to repair the damage and conserve the fabric of nature. Most noteworthy was Marsh's stress on the unforeseen and unintended consequences, as well as the heedless greed, of technological enterprise.

Wallace Stegner "the rudest kick in the face that American initiative, optimism and carelessness had yet received.:

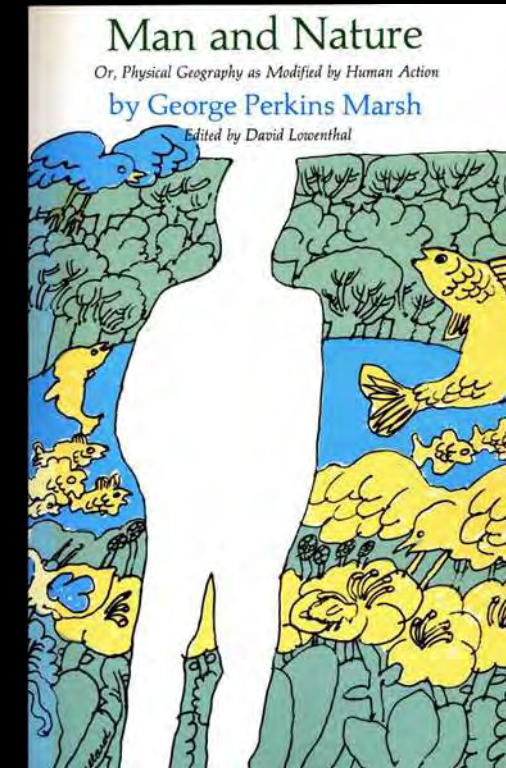
"Man is everywhere a disturbing agent. Wherever he plants his foot, the harmonies of nature are turned to discord"

"...Man, who even now finds scarce breathing room on this vast globe, cannot retire from the Old World to some yet undiscovered continent, and wait for the slow action of such causes to replace, by a new creation, the Eden he has wasted"

"Man has too long forgotten that the earth was given to him for usufruct alone, not for consumption, still less for profligate waste. Nature has provided against the absolute destruction of any of her elementary matter... But she has left it within the power of man irreparably to derange the combinations of inorganic matter and of organic life."



1864





## Two Key Insights from Marsh

### 1. Unintended Consequences

...even the best intentions do not ensure good environmental management. For as Marsh reiterated time and again, most human impacts are unintentional. “Vast as is the . . . magnitude and importance [of] intentional changes”, they are “insignificant in comparison with the contingent and unsought results which have flowed from them”.

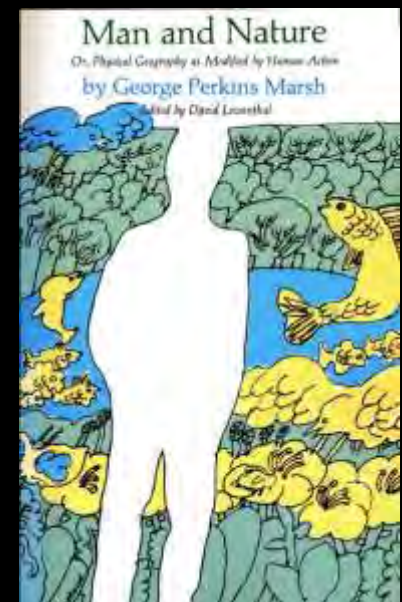
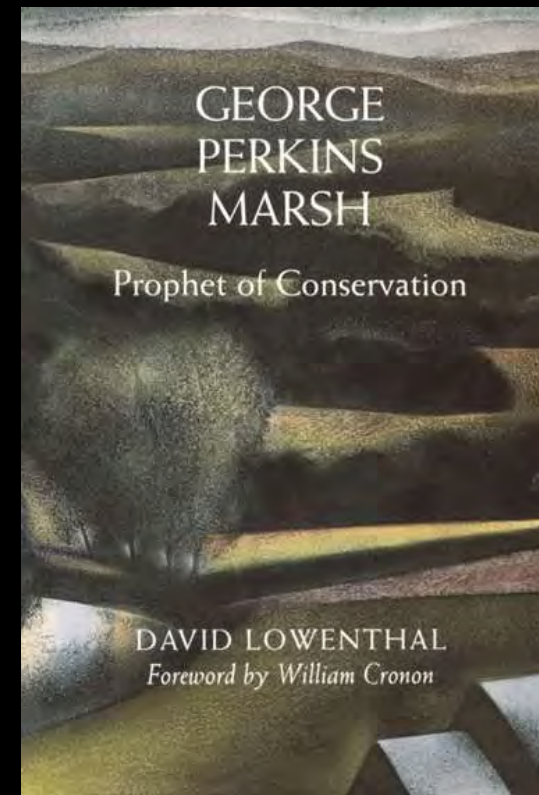
As human global impacts proliferate, their unsought, undesirable, perhaps lethal consequences can never be fully foreseen, let alone prevented.

### 2. Commitment to the Future

For all Marsh’s dire warnings, pragmatic optimism suffuses *Man and Nature*. Many of his insights and remedies were drawn from Europe, but his central themes—the need for reform, the faith in man’s powers—are characteristically American.

And they were interfused with another American trait—commitment to the future. The whole force of *Man and Nature* lies in its assumption that the welfare of future generations transcended immediate gains. Americans who disdained to practice a better husbandry for themselves should feel morally obliged to do so for their offspring.

Impact - Watershed protection through forestry management, 1876 Federal Forestry Commission, Arbor Day Movement



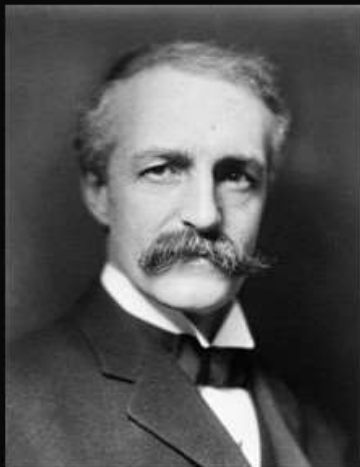
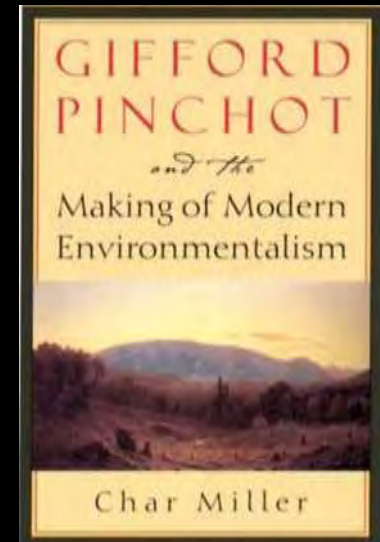
## Nature Preservation vs. Natural Resource Conservation

George Marsh's "Man and Nature," a gift from his parents on his 21st birthday, profoundly influenced young Pinchot.

- Utilitarian – Natural Resource Conservation
- Populist, democratic conservation
- Scientific management



Gifford Pinchot  
1865 - 1946  
The First  
Conservationist



Conservation is the application of common sense to the common problems for the common good.

(Gifford Pinchot)

# The Hetch Hetchy Debate 1908–1913

The Hetch Hetchy Valley lies in the northwestern part of Yosemite National Park and is drained by the Tuolumne River.

During the late 19th century, the valley was renowned for its natural beauty – often compared to that of Yosemite Valley – but also targeted for the development of water supply for irrigation and municipal interests.





## The Hetch Hetchy Debate 1908–1913

John Muir was the romantic environmentalist (preservationist).

Gifford Pinchot was the progressive environmentalist (conservationist).

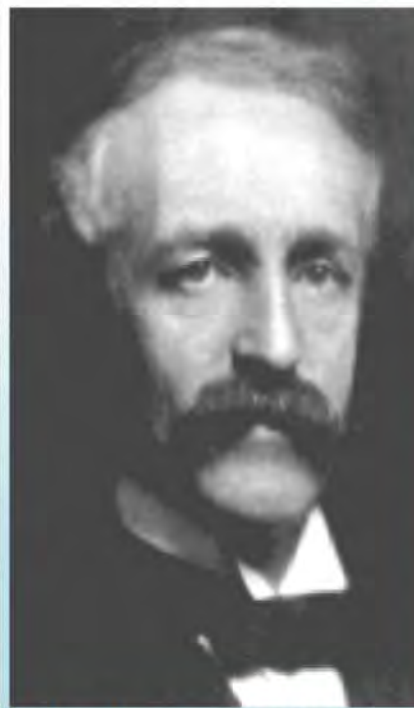




**Muir on Hetch Hetchy:**

...the Phelans, Pinchots and their hirelings will not thrive forever....

These temple-destroyers, devotees of ravaging commercialism, seem to have a perfect contempt for Nature, and instead of lifting their eyes to the God of the mountains, lift them to the Almighty Dollar. Dam Hetch Hetchy! As well dam for water-tanks the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man.



**John Muir & Gifford Pinchot, ca. 1913**

**Pinchot on Hetch Hetchy:**

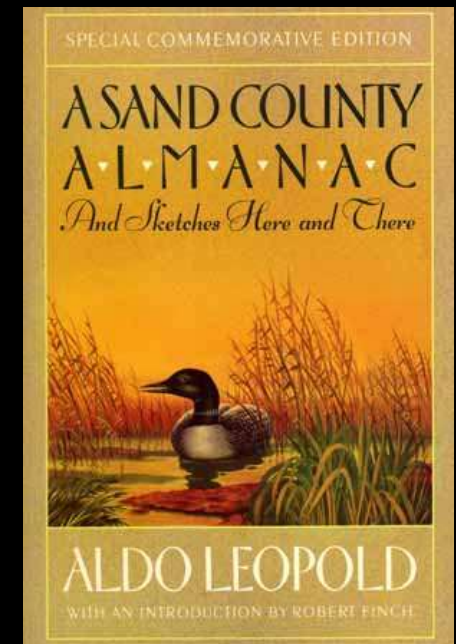
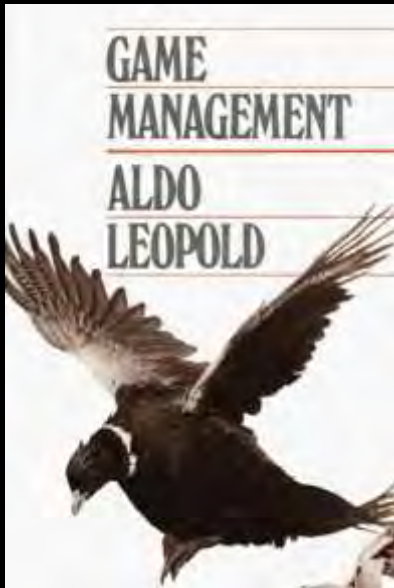
The star witness in 1913 hearings on legislation to dam Hetch Hetchy to provide water and hydropower for San Francisco, Gifford Pinchot testified: “If we had nothing else to consider then the delight of the few men and women who would yearly go to Hetch Hetchy Valley, then it should be left in its natural condition. But the considerations on the other side of the question, to my mind, are simply overwhelming.... I never understood Muir’s position on Hetch Hetchy.”

**In 1923, the O'Shaughnessy Dam was completed on the Tuolumne River, flooding the entire valley under the Hetch Hetchy Reservoir**

# Wilderness and Conservation

## Aldo Leopold 1887-1948

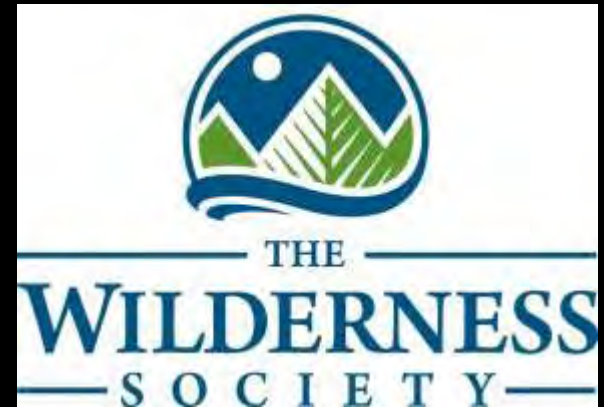
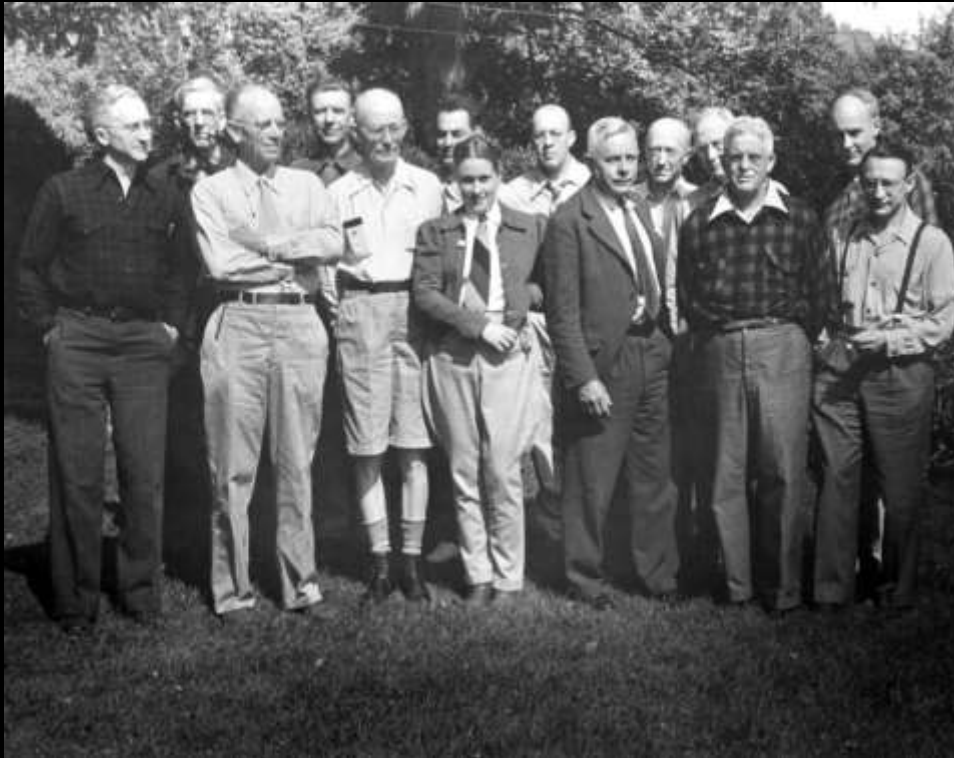
- "The last word in ignorance is the man who says of an animal or plant: "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering."
- "Conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."
- The land ethic: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."





In 1924, Leopold convinced the Forest Service to protect as wilderness 500,000 acres of New Mexico's Gila National Forest. It was the National Forest System's first officially designated wilderness area.

The Wilderness Society was formed in 1935 by Aldo Leopold, Bob Marshall and Benton MacKaye



## The Paradox of Wilderness Conservation

“All conservation of wildness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wilderness left to cherish.”





## Wilderness And the American Mind



The U.S. Wilderness Act of 1964,

where wilderness is defined (both conceptually and legally): " . . .in contrast to those areas where man and his own works dominate the landscape, . . .an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain"

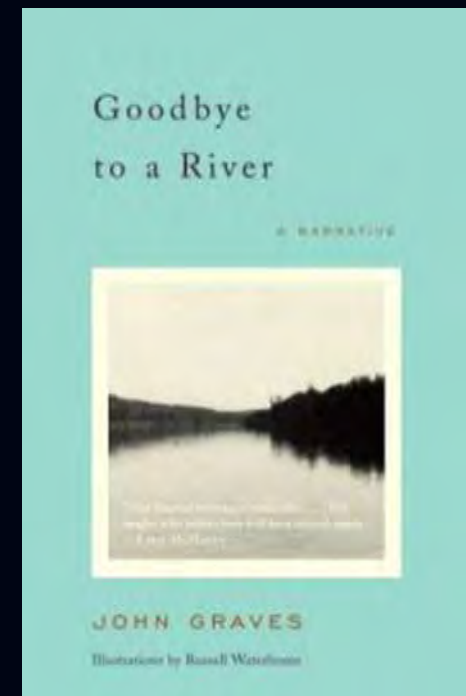
# Ecological Change and the Narrative of Loss

## To Have Viewed It Entire – John Graves

In recent decades it has become customary, and right I guess, and easy enough with hindsight, to damn the ancestral frame of mind that ravaged the world so fully and so soon. What I myself seem to damn mainly though, is just not having seen it. Without any virtuous hindsight I would likely have helped in the ravaging as did even most of those who loved it best.

But God! To have viewed it entire, the soul and guts of what we had and gone forever now, except in books and such poignant remnants as small swift birds that journey to and from the distant Argentine, and call at night in the sky.

- From *Self Portrait, with Birds: Some Semi-Ornithological Recollections* (1991)



# The Pristine Myth: The Landscape of the Americas in 1492

William M. Denevan

Department of Geography, University of Wisconsin

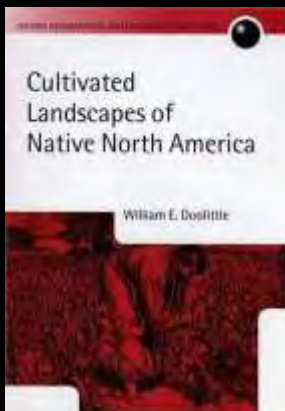
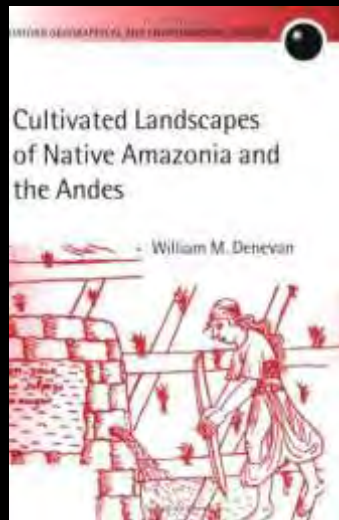
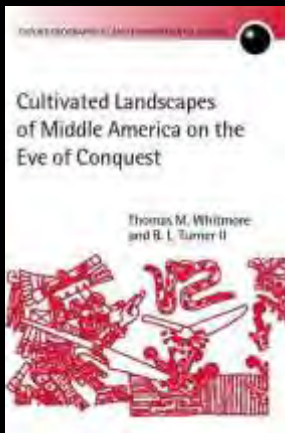
**Abstract.** The myth persists that in 1492 the Americas were a sparsely populated wilderness, “a world of barely perceptible human disturbance.” There is substantial evidence, however, that the Native American landscape of the early sixteenth century was a humanized landscape almost everywhere. Populations were large. Forest composition had been modified, grasslands had been created, wildlife disrupted, and erosion was severe in places. Earthworks, roads, fields, and settlements were ubiquitous. With Indian depopulation in the wake of Old World disease, the environment recovered in many areas. A good argument can be made that the human presence was less visible in 1750 than it was in 1492.

*Annals of the Association of American Geographers*, Vol. 82, No. 3, The Americas before and after 1492: Current Geographical Research. (Sep., 1992), pp. 369-385.



# Cultivated Landscapes of the Americas – The Myth of Pristine Nature

The geographer William M. Denevan argued in 1976 that the American population in 1492 was around 55 million and that the population north of Mexico was 4 to 8 million.



## The Pristine Myth: The Landscape of the Americas in 1492

William M. Denevan

Department of Geography, University of Wisconsin, Madison, WI 53706

**Abstract.** The myth persists that in 1492 the Americas were a sparsely populated wilderness, "a world of barely perceptible human disturbance." There is substantial evidence, however, that the Native American landscape of the early sixteenth century was a humanized landscape almost everywhere. Populations were large. Forest composition had been modified, grasslands had been created, wildlife disrupted, and erosion was severe in places. Earthworks, roads, fields, and settlements were ubiquitous. With Indian depopulation in the wake of Old World disease, the environment recovered in many areas. A good argument can be made that the human presence was less visible in 1750 than it was in 1492.

**Key Words:** Pristine myth, 1492, Columbus, Native American settlement and demography, prehistoric New World, vegetation change, earthworks.

"This is the finest prairie . . ."

Evangelist: A Tale of Aztec (Langfellow, 1847).

**W**HAT was the New World like at the time of Columbus?—"Geography as it was," in the words of Carl Sauer (1971, xi). The Admiral himself spoke of a "Terrestrial Paradise," beautiful and green and fertile, teeming with birds, with naked people living there whom he called "Indians." But was the landscape encountered in the sixteenth century primarily pristine, virgin, a wilderness, nearly empty of people, or was it a humanized landscape, with the imprint of native Americans being dramatic and persistent? The former still seems to be the more common view, but the latter may be more accurate.

The pristine view is to a large extent an invention of nineteenth-century romanticist and

primitivist writers such as W.H. Hudson, Cooper, Thoreau, Longfellow, and Parkman, and painters such as Catlin and Church.<sup>1</sup> The wilderness image has since become part of the American heritage, associated "with a heroic pioneer past in need of preservation" (Pyne 1982, 17; also see Bowden 1992, 22). The pristine view was restated clearly in 1950 by John Bakeless in his book *The Eyes of Discovery*:

There were not really very many of these redskins . . . the land seemed empty to invaders who came from settled Europe . . . that ancient, primeval, undisturbed wilderness . . . the streams simply beaded with fish . . . so much game . . . that one hunter counted a thousand animals near a single oak log . . . the virgin wilderness of Kentucky . . . the forested glory of primitive America (11, 281, 233, 314, 407).

But then he mentions that Indian "prairie fires . . . cause the olean-mentioned oak openings . . . Great fields of corn spread in all directions . . . the Barrens . . . without forest," and that "Early Ohio settlers found that they could drive about through the forests with sleds and horses" (31, 304, 306, 314). A contradiction!

In the ensuing forty years, scholarship has shown that Indian populations in the Americas were substantial, that the forests had indeed been altered, that landscape change was commonplace. This message, however, seems not to have reached the public through texts, essays, or talks by both academics and popularizers who have a responsibility to know better.<sup>2</sup>

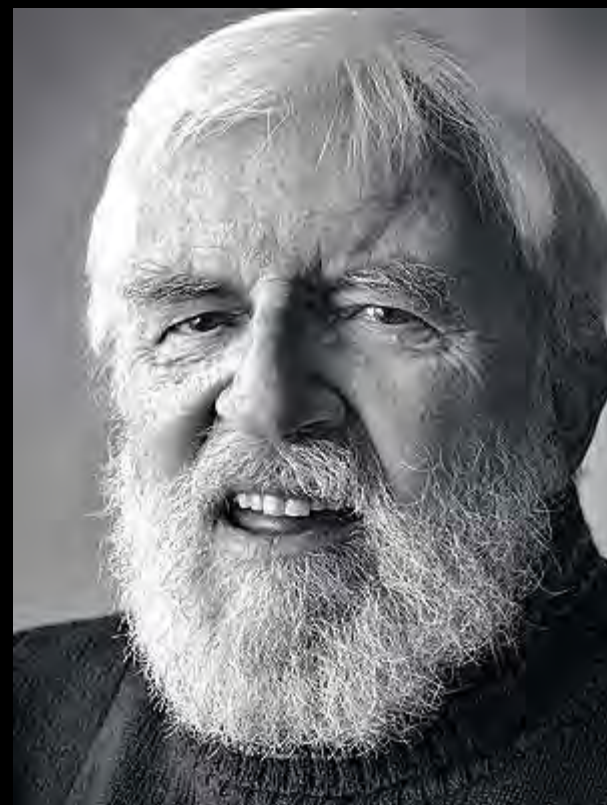
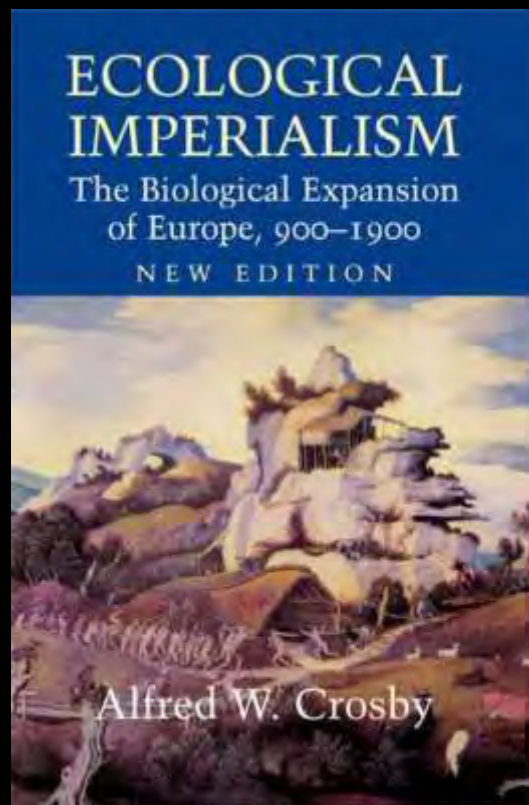
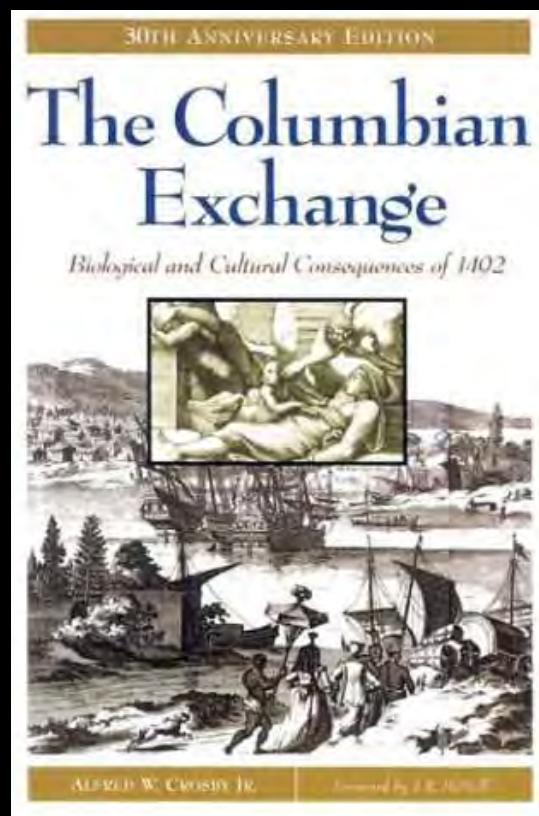
Krikpatrick Sale in 1990, in his widely reported *Conquest of Paradise*, maintains that it was the Europeans who transformed nature, following a pattern set by Columbus. Although Sale's book has some merit and he is aware of large Indian numbers and their impacts, he nonetheless champions the widely-held dichotomy of the benign Indian landscape and

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## Environmental History and Ecological Reality

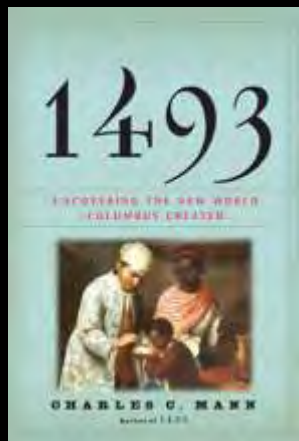
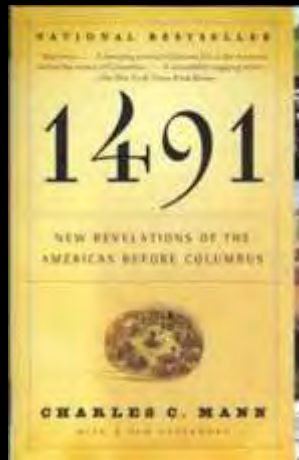
Alfred Crosby described the near extinction of some tribes and the dramatic depopulation of others in *The Columbian Exchange* (1972) and the biological expansion of Europe in *Ecological Imperialism* (1986).





# To Have Viewed It Entire

“Until Columbus, Indians were a keystone species in most of the hemisphere. Annually burning undergrowth, clearing and replanting forests, building canals and raising fields, hunting bison and netting salmon, growing maize, manioc, and the Eastern Agricultural Complex. Native Americans had been managing their environment for thousands of years...But all of these efforts required close, continual oversight. In the sixteenth century, epidemics removed the boss...Not only did invading endive and rats beset them, but native species, too, burst and blasted, freed from constraints by the disappearance of Native Americans.” Mann, 1491



**Columbian Exchange**  
1492-1650

- Fruits and vegetables
- Beans, nuts, and grains
- Flowers
- Other plant products
- Animals
- Insects
- Diseases

Colors show hemisphere of origin.

**B** Before Columbus established lasting European contact with the Americas, only Native Americans raised corn. Today corn is grown throughout the world. Name three foods that are not originally from the Americas.



## The Balance of Nature Myth

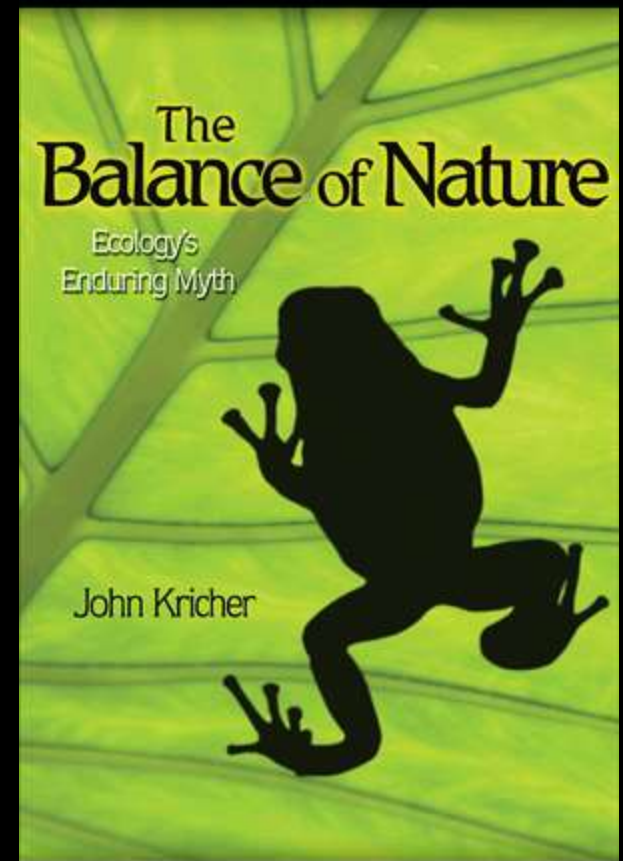
“The existence of a balance of nature has been a dominant part of Western philosophy since before Aristotle.

But the science of ecology and evolutionary biology together demonstrate that there is no balance of nature—not today and not at anytime in Earth’s long history.

The paradigm is based on belief, not data; it has no scientific merit.

Nature is constantly in flux varying in scales of space and time, and most of that flux is due entirely to natural causes. At this time of extraordinary human influence on Earth’s ecosystems and biota, I argue that it is essential for humanity to understand how evolution occurs and why ecology is far more dynamic than static.”

Nothing Endures But Change  
Heraclitus 540-480BC



## Preservation vs. Conservation Today

*Our Common Future*, also known as the *Brundtland Report*, from the United Nations World Commission on Environment and Development was published in 1987.

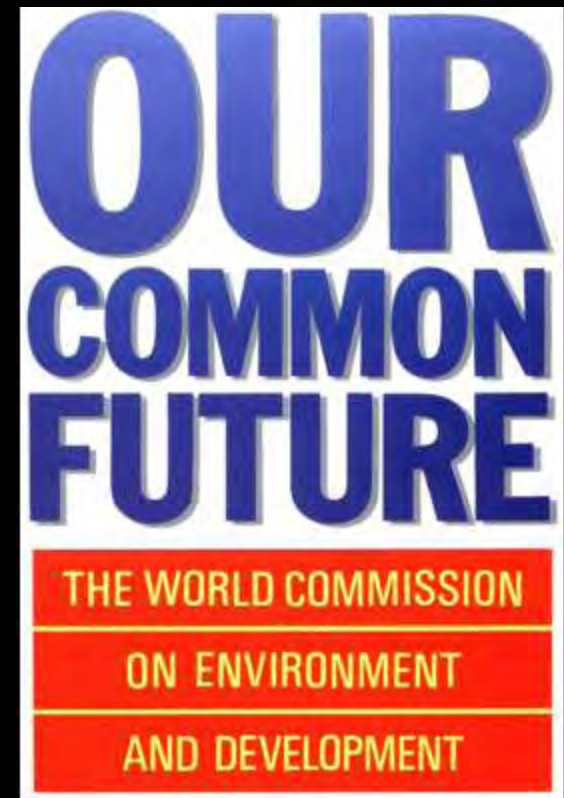
Sustainable development is defined in the report as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Environment – Economy – Equity

"In the middle of the 20th century, we saw our planet from space for the first time. Historians may eventually find that this vision had a greater impact on thought than did the Copernican revolution of the 16th century, which upset the human self-image by revealing that the Earth is not the centre of the universe.

From space, we see a small and fragile ball dominated not by human activity and edifice but by a pattern of clouds, oceans, greenery, and soils. Humanity's inability to fit its activities into that pattern is changing planetary systems, fundamentally. Many such changes are accompanied by life-threatening hazards.

This new reality, from which there is no escape, must be recognized - and managed."



# Global Change and Nature

## Anthropocene – the Age of Humans

Nearly all humans live in anthropogenic landscapes, especially in urban, suburban and densely populated rural village landscapes.

Anthropogenic landscape transformation (land-use change) is one of the primary drivers of global changes in climate, biodiversity and biogeochemistry.

Ecological processes in anthropogenic landscapes differ profoundly from those of pristine and indirectly impacted ecosystems. These processes include species introduction and domestication, population management and harvest, the tillage transport and cover of soils by impervious structures, fossil fuel combustion, irrigation and the fertilization of ecosystems with nitrogen, phosphorus and other limiting nutrients.

Anthropogenic landscapes are highly fragmented fine-scale mosaics of managed and unmanaged landscape features with clearly defined boundaries such as buildings, roads, yards and agricultural plots.



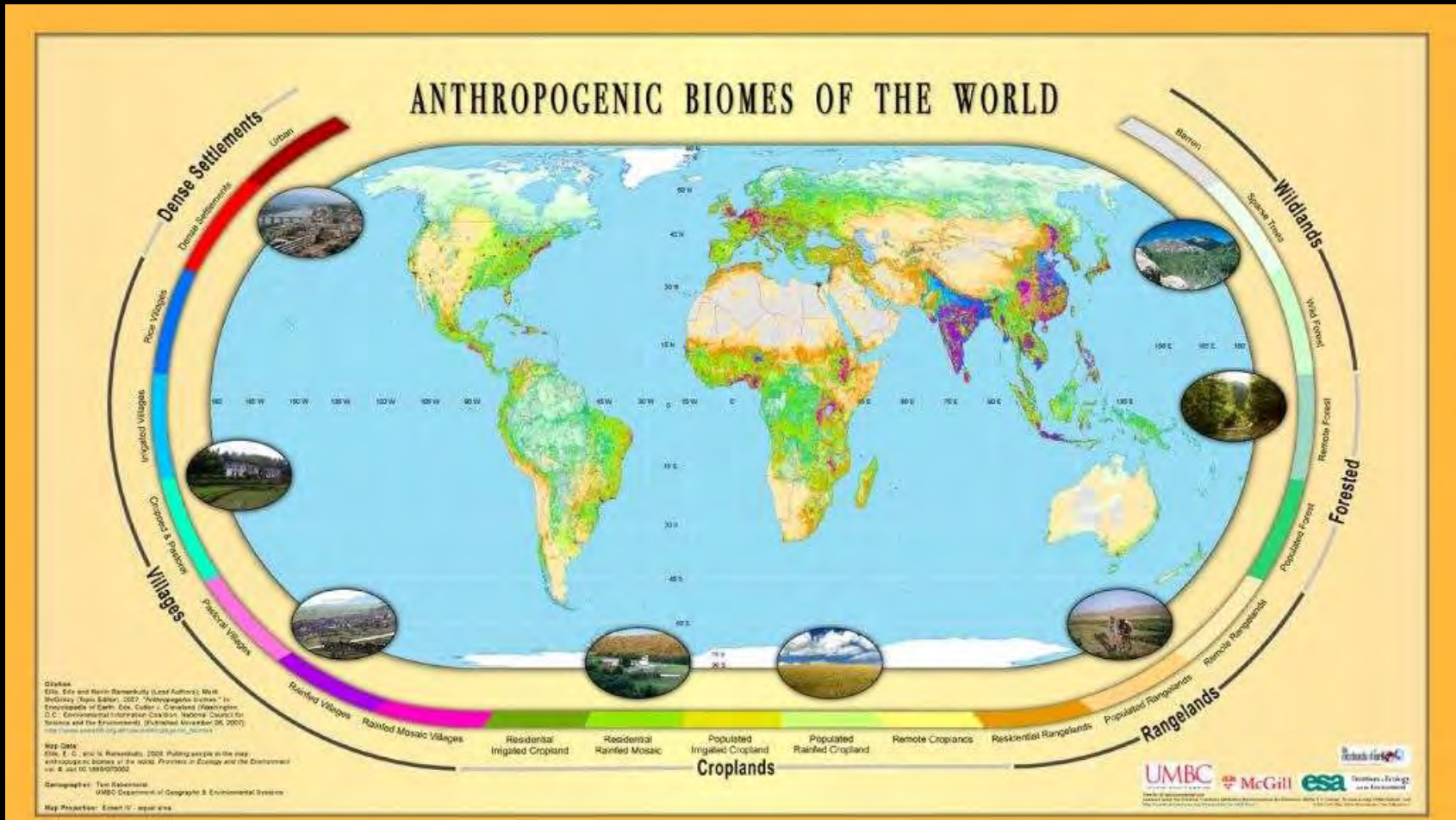


# Anthropogenic Landscapes, or "Human Landscapes"

<http://ecotope.org/> Dr. Erle Ellis

areas of Earth's terrestrial surface where direct human alteration of ecological patterns and processes is significant, ongoing, and directed toward servicing the needs of human populations for food, shelter and other resources and services including recreation and aesthetic needs.

Anthropogenic Biomes ("Anthromes"), describe the globally-significant types of anthropogenic landscapes.



## Human-Nature and the American Mind

“Anthropogenic biomes point to a necessary turnaround in ecological science and education, especially for North Americans.

Beginning with the first mention of ecology in school, the biosphere has long been depicted as being composed of natural biomes, perpetuating an outdated view of the world as ‘natural ecosystems with humans disturbing them’.

Anthropogenic biomes tell a completely different story, one of ‘human systems, with natural ecosystems embedded within them’. This is no minor change in the story we tell our children and each other. Yet it is necessary for sustainable management of the biosphere in the 21st century.” Erle Ellis



## New Nature - Novel Ecosystems

Assemblages of species in a given area that have not previously occurred.

Novel ecosystems are not under human management, but they are mostly the result of direct or indirect human activities.

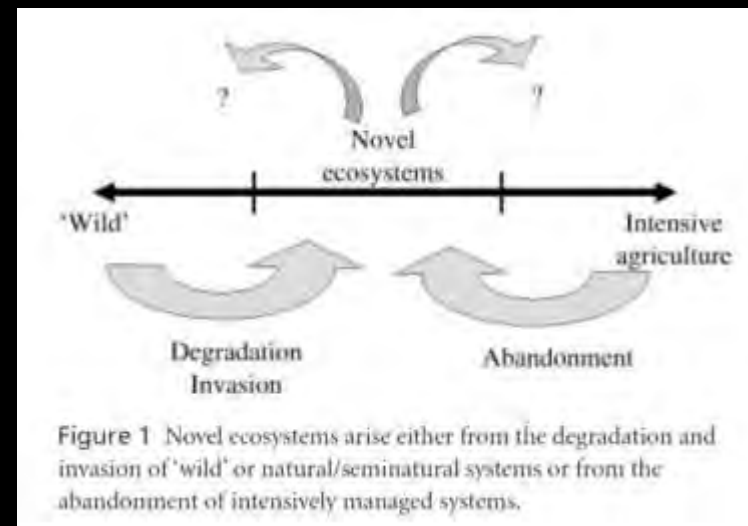
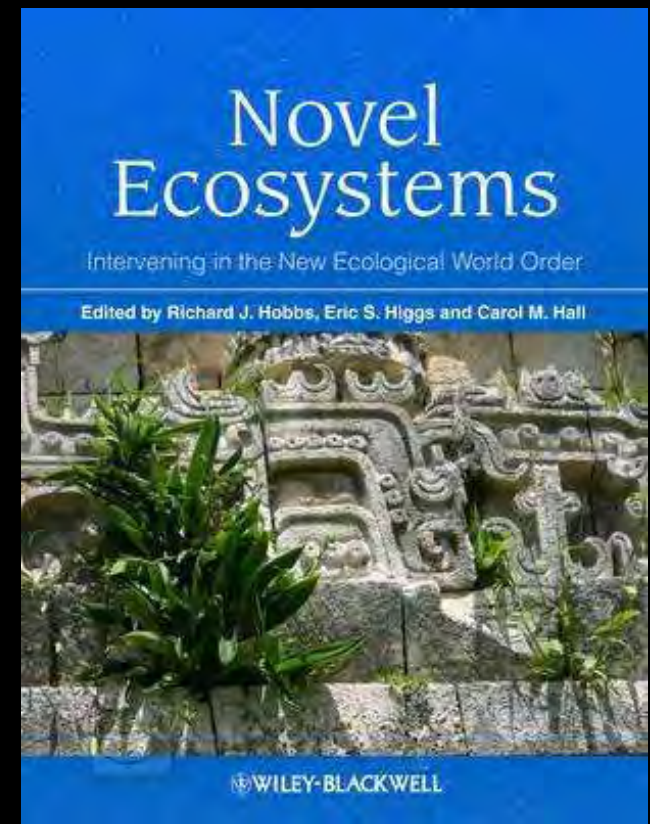
They lack natural analogs

Ecology (like evolution) has a strong historical dimension.

Pristine or near pristine ecosystems are historically and culturally important just like cathedrals and castles. Just like cathedrals and castles, they need to be preserved and restored as best they can.

Novel ecosystems are not really all that novel, except in their species composition.

We need to develop a new ecology that is not prejudiced by the human-nature dualism.





# A critique of the 'novel ecosystem' concept

Carolina Murcia<sup>1,2\*</sup>, James Aronson<sup>3,4\*</sup>, Gustavo H. Kattan<sup>5</sup>, David Moreno-Mateos<sup>3</sup>, Kingsley Dixon<sup>6,7</sup>, and Daniel Simberloff<sup>8</sup>

Trends in Ecology & Evolution xx (2014) 1–6

The 'novel ecosystem' concept has captured the attention of scientists, managers, and science journalists, and more recently of policymakers, before it has been subjected to the scrutiny and empirical validation inherent to science. Lack of rigorous scrutiny can lead to undesirable outcomes in ecosystem management, environmental law, and policy. Contrary to the contentions of its proponents, no explicit, irreversible ecological thresholds allow distinctions between 'novel ecosystems' and 'hybrid' or 'historic' ones. Further, there is no clear message as to what practitioners should do with a 'novel ecosystem'. In addition, ecosystems of many types are being conserved, or restored to trajectories within historical ranges of variation, despite severe degradation that could have led to their being pronounced 'novel'.

# Resilient nature?

Peter Kareiva, Nature Conservancy Chief Scientist

“My main point is that the environmental movement and conservationists commonly assume “nature is fragile” — simply search websites and press releases to see how often “fragile” is used to describe nature.

My scientific experience is that if anything we should assume nature is resilient, and then ask under what circumstances will human activities cause irreparable damage.

I admit the question remains open.

My hypothesis is that conservation will achieve greater conservation gains if it supports plans and actions that optimize meeting multiple objectives (food security, energy, jobs, etc) as opposed to single-mindedly pursuing only conservation goals.

This would be a real change for conservation.”



# Preservation vs Conservation

Peter Kareiva, Nature Conservancy Chief Scientist

Conservation is widely viewed as the innocent and uncontroversial practice of purchasing special places threatened by development. In truth, for 30 years, the global conservation movement has been racked with controversy arising from its role in expelling indigenous people from their lands in order to create parks and reserves. The modern protection of supposed wilderness often involves resettling large numbers of people, too often without fair compensation for their lost homes, hunting grounds, and agricultural lands.

If there is no wilderness, if nature is resilient rather than fragile, and if people are actually part of nature and not the original sinners who caused our banishment from Eden, what should be the new vision for conservation?

It would start by appreciating the strength and resilience of nature while also recognizing the many ways in which we depend upon it.

Conservation should seek to support and inform the right kind of development -- development by design, done with the importance of nature to thriving economies foremost in mind. And it will utilize the right kinds of technology to enhance the health and well-being of both human and nonhuman natures.





# Preservation vs Conservation

Peter Kareiva, Nature Conservancy Chief Scientist

None of this is to argue for eliminating nature reserves or no longer investing in their stewardship.

But we need to acknowledge that a conservation that is only about fences, limits, and far away places only a few can actually experience is a losing proposition.

Protecting biodiversity for its own sake has not worked.

Protecting nature that is dynamic and resilient, that is in our midst rather than far away, and that sustains human communities -- these are the ways forward now.

Otherwise, conservation will fail, clinging to its old myths

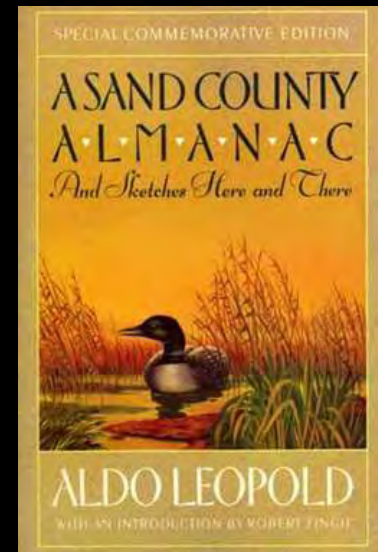
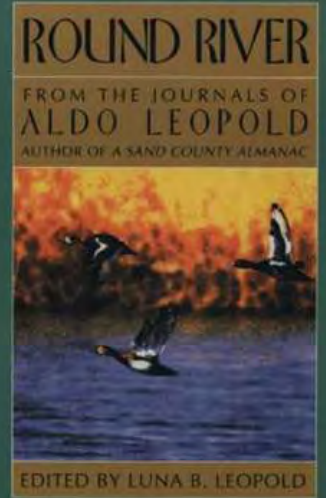


Ecology is an infant just learning to talk, and, like other infants, is engrossed with its own coinage of big words.

Its working days lie in the future.

Ecology is destined to become the lore of Round River, a belated attempt to convert our collective wisdom of biotic materials into a collective wisdom of biotic navigation.

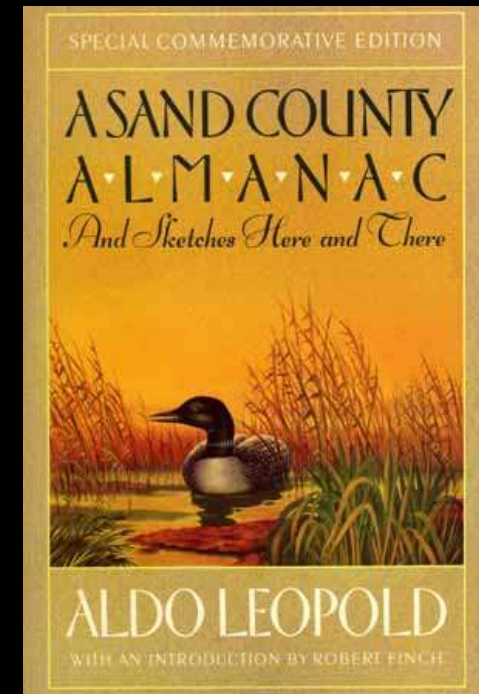
This, in the last analysis, is conservation.



## Conservation and Restoration

### A Sand County Almanac– Aldo Leopold

- On this sand farm in Wisconsin, first worn out and then abandoned by our bigger and better society, we try to rebuild, with shovel and axe, what we are losing elsewhere. It is here that we seek—and still find—our meat from God.
- What more delightful avocation than to take a piece of land and by cautious experimentation to prove how it works. What more substantial service to conservation than to practice it on one's own land?"





## Conservation and Farming

Wendell Berry b. 1938

But we cannot hope – for reasons practical and humane, we cannot even wish – to preserve more than a small portion of the land in wilderness. Most of it we will have to use. The conservation movement swings from self-righteous outrage to self-deprecation because it has neglected this issue. Its self-contradictions can only be reconciled – and the conservation impulse made to function as ubiquitously and variously as it needs to – by understanding, imagining, and living out the possibility of “kindly use”

Kindly use depends upon intimate knowledge, the most sensitive responsiveness and responsibility...the understanding of kindly use in agriculture must encompass both farm and household...

[More on this in October...]

1977

