



# Trends

JAN/FEB/MAR 1972  
VOLUME 9 • NUMBER 1



## *Wilderness Act*

*... A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act, an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value ...*

## *Why Wilderness?*

In 1886, a spokesman for the Cinnabar and Clark's Fork Railroad Company asked before the 49th Congress, "Is it true that the rights and privileges of citizenship, the vast accumulation of property, and the demands of commerce . . . are to yield to . . . a few sportsmen bent only on the protection of a few buffalo." The argument then was whether the 2,000,000 acres of the country's first national park should be protected against commercial overdevelopment.

During the mid-1880's, in its first clash with civilization, wilderness preservation won out. This year, as we celebrate the Centennial of Yellowstone National Park, the battle rages on. The January/February/March issue of TRENDS deals with this controversy as it exists a century later.

Our primary concern in preparing this issue was to define the nature and scope of the conflict. Can we afford wilderness in the 1970's? By setting aside land as wilderness are we not sacrificing needed wood supplies? Is wilderness only accessible to the wealthy and physically able? On the other hand, is there not something sacred about primeval nature? And don't we need breathing space far away from our automated and air polluted civilization?

In 1964, Congress made wilderness preservation mandatory by writing it into law. Some argue that the law goes too far. Others maintain that the congressional procedure is ponderous and that the law doesn't go far enough. All claim they are ardent conservationists.

The problems involved are critical and they go beyond whether or not wilderness should be preserved under the law. More than anything else it is a value conflict between those who would use the land and those who would leave it untouched. This issue of TRENDS tries to represent the forces of both sides and a couple of those inbetween. In the process, in keeping with the spirit of the Centennial, we hope to shed a little light to guide us into a second century of parks. — Eds.



A PUBLICATION OF THE PARK PRACTICE PROGRAM

NATIONAL CONFERENCE ON STATE PARKS

Ben Bolen, *President*  
Barry Tindall, *Executive Secretary*

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

Rogers C.B. Morton, *Secretary*  
George B. Hartzog, Jr., *Director*  
Patricia Conner, *Actg. Ch., Div. of State & Private Asst.*

NATIONAL RECREATION AND PARK ASSOCIATION

Willard Brown, *Chrm., Board of Trustees*  
Dwight F. Rettie, *Executive Director*  
James E. Yeo, *Circulation Manager*

EDITORIAL BOARD

A. Heaton Underhill Wash., D.C.  
*Assistant Director, BOR*  
Raymond Housley Wash., D.C.  
*U.S. Forest Service, Dept. of Agriculture*  
John P. Hewitt Silver Spring, Md.  
*The Md.-Nat. Capital Park and Planning Commission*  
Barry Tindall Wash., D.C.  
Patricia Conner Wash., D.C.  
Ron Greenberg Wash., D.C.

STAFF

Ron Greenberg and Susan Dietch, *Editors*  
Loretta DeLozier, *Assoc. Editor*  
Glenn Snyder, *Art Editor*

District Service Printers Inc., Washington, D.C., *Printer*  
Not printed or distributed at Government expense.

The views and opinions expressed in TRENDS are those of the authors and not necessarily those of this publication, the Park Practice Program, its sponsoring and cooperating organizations, agencies or the officers thereof.

Articles concerned with studies, concepts, philosophies and projections related to the many aspects of parks and recreation are invited. Illustrative graphic materials, where necessary or desirable, and a brief biographical sketch of the author should accompany text intended for publication. Send all material intended for publication to:

Editor, TRENDS, Division of State and Private Assistance, NPS, Washington, D.C. 20240.

The Park Practice Program, which publishes TRENDS, also publishes DESIGN, GUIDELINE and GRIST. Membership in the Program is open to all persons or organizations concerned with every type of recreation or park planning, development and operation. Application for membership should be made to: The Park Practice Program, National Conference on State Parks, 1601 N. Kent St., Arlington, Va. 22209.

Initial membership fee, \$50, provides a library of the above listed publications with binders and indices, and all issues of such published items for the remainder of the calendar year. Annual renewal fee thereafter, \$15.

TRENDS subscriptions: \$10, initial, \$3.50 renewal.

# CONTENTS

INTRODUCTION ..... 3

WILDERNESS PRESERVED *by Roderick Nash* ..... 5

THE UNIVERSE OF WILDERNESS IS VANISHING  
*by Robert Marshall* ..... 11

THE WILDERNESS: JUST HOW WILD SHOULD IT BE ?  
*by Eric Julber* ..... 15

IS THE WILDERNESS ACT WORKING ?  
*by Michael McCloskey* ..... 19

PUBLIC HEARINGS: "SHOW AND TELL TIME" FOR WILDERNESS  
*by Robert B. Kasparek* ..... 24

ARE AMERICANS RECEIVING FULL BENEFITS FROM  
WILDERNESS? *by James R. Turnbull* ..... 26

MYTHS IN WILDERNESS DECISION MAKING  
*by George H. Stankey* ..... 31

PRESERVATION OF DESERT WILDERNESS  
*by Walter P. Taylor* ..... 37

WILDERNESS AND ITS VALUES *by William O. Douglas* ..... 42



Thomas Moran (1837-1926), *GRAND CANYON OF THE YELLOWSTONE*. National Collection of Fine Arts, Washington, D.C.

# Wilderness Preserved

By Roderick Nash

*[The Yellowstone region] is hereby reserved and withdrawn from settlement, occupancy, or sale . . . and set apart as a public park or pleasuring ground for the benefit and enjoyment of the people. . . . [The Secretary of the Interior] shall provide for the preservation . . . of all timber, mineral deposits, natural curiosities, or wonders within said park. . . in their natural condition.*

*United States Statutes at Large, 1872*

The world's first instance of large-scale wilderness preservation in the public interest occurred on March 1, 1872, when President Ulysses S. Grant signed an act designating over two million acres of northwestern Wyoming as Yellowstone National Park.<sup>1</sup>

With this milestone in the early history of American wilderness preservation, the ideas of George Catlin, Henry David Thoreau, George Perkins Marsh and other early disciples of wilderness bore fruit. Yet the rationale for action did not take account of the aesthetic, spiritual, or cultural values of wilderness which had previously stimulated appreciation. Yellowstone's initial advocates were not

concerned with wilderness; they acted to prevent private acquisition and exploitation of geysers, hot springs, waterfalls, and similar curiosities. Only later did a few persons begin to realize that one of the most significant results of the establishment of the first national park had been the preservation of *wilderness*.

Only a few white men had visited the Yellowstone region during the first six decades of the nineteenth century, but enough information filtered back from a handful of trappers and prospectors to excite the interest of several residents of Montana Territory.<sup>2</sup> Fear of Indian attack discouraged the first projected expeditions, but in

the summer of 1869 David E. Folsom, Charles W. Cook, and William Peterson explored the fabled area. Their reports of the waterfalls and canyons along the Yellowstone River as well as the spectacular eruptions of geysers stimulated several acquaintances to plan a major exploration the following summer.<sup>3</sup> Of those who participated in the 1870 expedition, Nathaniel P. Langford and Cornelius Hedges were later to spearhead the movement to establish Yellowstone National Park. Both were Easterners who went to Montana in the early 1860s and rose to positions of some political importance. Langford received an appointment as territorial governor but differences between the Senate and President Andrew Johnson denied him the actual office.<sup>4</sup> Hedges graduated from Yale in 1853 and also held a degree from the Harvard Law School. He served as United States District Attorney in Montana and presided over the state's historical society.<sup>5</sup>

In August 1870 Langford and Hedges joined a nineteen-man Yellowstone party under the leadership of Henry D. Washburn and Gustavus C. Doane.<sup>6</sup> For over a month the group wandered through the wilderness marveling at what they termed "curiosities" and "wonders"—the geysers, hot springs, and canyons.<sup>7</sup> On September 19, as they were leaving for home, the explorers participated in a campfire discussion of Yellowstone's future. Most said they intended to file claims on the land around the geysers and waterfalls in anticipation of the demands which tourists would make to see them. But Hedges dissented. According to Langford, he proposed that instead of being divided among private speculators, Yellowstone "ought to be set apart as a great National Park."<sup>8</sup> Langford added that he lay awake most of the night thinking about the idea. He felt a reservation was possible if Congress could be persuaded of the uniqueness of Yellowstone's natural attractions. The "park" Hedges and Langford envisaged consisted of a few acres around each of the geysers and along the rims of the canyons. In this manner the right of the public to see these sights would be safeguarded and the scenery itself saved from defacement. *Wilderness* preservation did not figure in the 1870 plans.<sup>9</sup>

During the winter following his trip, Nathaniel P. Langford lectured several times in the East in an effort to arouse enthusiasm for the park proposal.<sup>10</sup> In addition, he published two articles on Yellowstone in *Scribner's Monthly*, complete with engraved illustrations of its canyons and geysers.<sup>11</sup> The public was interested, but some of the things Langford reported as fact seemed beyond credence. One of those who heard Langford lecture and was in a position to test their validity was Ferdinand Vandiveer Hayden, director of the Geological and Geographical Survey of the Territories. Hayden was leading annual scientific expeditions in the West, and determined to include Yellowstone on his 1871 trip. He persuaded Thomas Moran, the landscape artist, and William Henry Jackson, a pioneer photographer of outdoor scenes, to accompany him and gather a pictorial record.<sup>12</sup>

Hayden's expedition generated considerable interest in the East. In an editorial in the issue of September 18, 1871, the *New York Times* seemed vaguely aware of the wilderness qualities of the Yellowstone country. "There is something romantic in the thought," it declared, "that, in spite of the restless activity of our people, and the almost fabulous rapidity of their increase, vast tracts of national domain yet remain unexplored." But more typical of the general reaction was the *Times'* subsequent description of the "New Wonder Land" as a place whose attractions were limited to unusual natural phenomena such as geysers.<sup>13</sup>

The firm of Jay Cooke and Company, financiers of the Northern Pacific Railroad through Montana, also evinced an interest in a Yellowstone park. In October a Cooke representative wrote to Hayden with the proposition that he lead a campaign for an act that would reserve "the Great Geyser Basin as a public park forever—just as it has reserved that far inferior wonder the Yosemite Valley and the big trees." The railroad interests hoped that Yellowstone would become a popular national vacation mecca like Niagara Falls or Saratoga Springs with resulting profit to the only transportation line serving it.<sup>14</sup> A wilderness was the last thing they wanted.

The suggestion that he father a national park movement



Old Faithful Geyser, Yellowstone National Park, 1871. Copy of William H. Jackson photograph.

appealed to the publicity-hungry Hayden. Along with Nathaniel P. Langford (whose initials and enthusiasm inevitably earned him the sobriquet "National Park") and Montana's Congressional delegate William H. Clagett, he began to build pressure for a reservation. Wilderness preservation did not figure in the appeal the park proponents made before Congress. They argued that speculators and squatters who were allegedly ready to move into the Yellowstone region endangered what Hayden called "the beautiful decorations." When the question of park boundaries arose, legislators called on Hayden as the man most familiar with the region. His reason for including over three thousand square miles had no relation to wilderness preservation, but rather stemmed from the feeling that there might be other "decorations," as yet undiscovered, in the vicinity of the known ones.<sup>15</sup>

On December 18, 1871, Congress began consideration of a park bill. The brief debate that followed focused on the need for protecting "remarkable curiosities" and "rare wonders" from private claims.<sup>16</sup> Supporters of the bill assured their colleagues that the Yellowstone country was too high and cold to be cultivated; consequently its reservation would do "no harm to the material interests of the people."<sup>17</sup> The strategy was not to justify the park positively as wilderness, but to demonstrate its uselessness

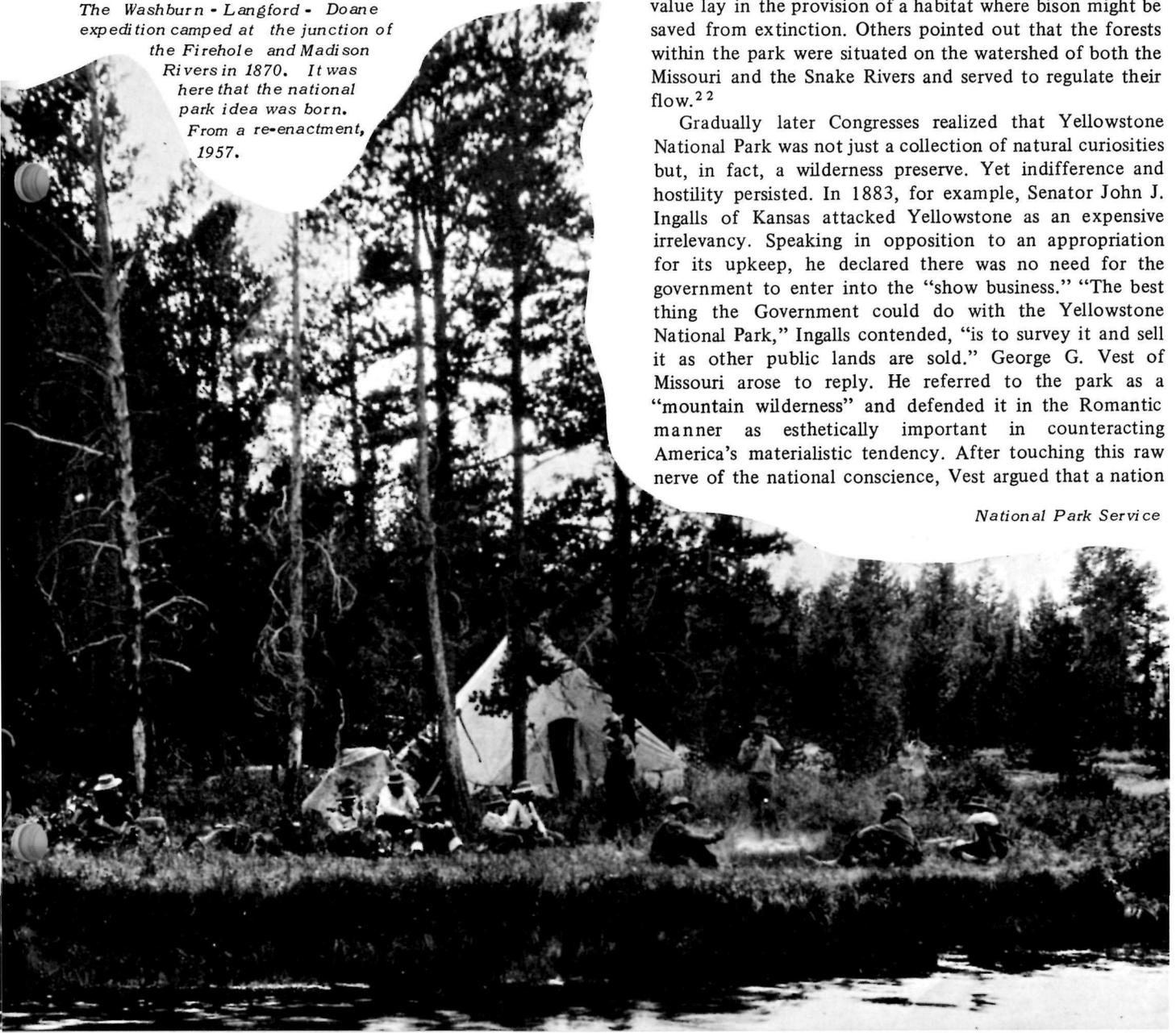
*The Washburn - Langford - Doane expedition camped at the junction of the Firehole and Madison Rivers in 1870. It was here that the national park idea was born. From a re-enactment, 1957.*

to civilization. Before voting, the legislators received copies of Langford's articles in *Scribner's* and William H. Jackson's photographs.<sup>18</sup> Since neither these documents, nor the Congressional debate, nor the text of the bill itself made mention of wilderness, it is clear that no *intentional* preservation of wild country occurred on March 1, 1872, when President Grant signed an act creating "a public park or pleasuring ground." Yet the stipulation that "all timber, mineral deposits, natural curiosities, or wonders" within the park be retained "in their natural condition" left the way open for later observers to construe its purposes as preserving wild country.<sup>19</sup>

The initial public reaction to the creation of Yellowstone National Park also ignored wilderness. It was praised as a "museum" and "marvellous valley," an area where people could see the "freaks and phenomena of Nature" along with "wonderful natural curiosities." Far from recognizing the park as a wilderness preserve, *Scribner's* anticipated the time when "Yankee enterprise will dot the new Park with hostelries and furrow it with lines of travel."<sup>20</sup> And a Montana newspaper went so far as to *regret* the park because it tended to keep the Yellowstone country wild and undeveloped.<sup>21</sup> A few joined Hayden in regarding the act as "a tribute from our legislators to science," and one writer in the *American Naturalist* felt its value lay in the provision of a habitat where bison might be saved from extinction. Others pointed out that the forests within the park were situated on the watershed of both the Missouri and the Snake Rivers and served to regulate their flow.<sup>22</sup>

Gradually later Congresses realized that Yellowstone National Park was not just a collection of natural curiosities but, in fact, a wilderness preserve. Yet indifference and hostility persisted. In 1883, for example, Senator John J. Ingalls of Kansas attacked Yellowstone as an expensive irrelevancy. Speaking in opposition to an appropriation for its upkeep, he declared there was no need for the government to enter into the "show business." "The best thing the Government could do with the Yellowstone National Park," Ingalls contended, "is to survey it and sell it as other public lands are sold." George G. Vest of Missouri arose to reply. He referred to the park as a "mountain wilderness" and defended it in the Romantic manner as esthetically important in counteracting America's materialistic tendency. After touching this raw nerve of the national conscience, Vest argued that a nation

*National Park Service*



whose population was expected to exceed 150,000,000 needed Yellowstone "as a great breathing-place for the national lungs."<sup>23</sup> Ingalls had no rejoinder, and the Senate passed an appropriation of \$40,000 for the park.

In the mid-1880s, debate in Congress concerning Yellowstone centered on the attempt of the Cinnabar and Clark's Fork Railroad Company to assist several mining ventures by securing a right-of-way across park land. Representative Lewis E. Payson of Illinois, who approved the railroad's plans, pointed out on December 11, 1886, that no harm could come to the geysers and hot springs. In his opinion the question was whether or not a mine "whose output . . . will be measured by millions upon millions of dollars, shall be permitted to have access to the markets of the world." A spokesman for the railroad appeared before the House to express his astonishment that anyone would question hallowed American values. "Is it true," he demanded, "that the rights and privileges of citizenship, the vast accumulation of property, and the demands of commerce . . . are to yield to . . . a few sportsmen bent only on the protection of a few buffalo."<sup>24</sup> Previously wilderness had always succumbed to arguments such as these.

Samuel S. Cox of New York replied to the demand for a right-of-way. "This is a measure," he declared, "which is inspired by corporate greed and natural selfishness against national pride and beauty." In Cox's opinion utilitarian criteria were irrelevant in evaluating Yellowstone. In the tradition of the Transcendentalists and Frederick Law Olmsted, he saw support of the park as a matter of keeping inviolate "all that gives elevation and grace to human nature, by the observation of the works of physical nature." Posterity had a stake in the park's "marvelous scenery," he concluded. The House burst into applause.

Representative Payson leaped back to his feet to assure the House that, except for Mammoth Hot Springs, which was four miles away, there was not "another object of natural curiosity within 40 miles" of the proposed railroad. Along with most of the early commentators, Payson understood the park's function as the protection of curiosities. "I can not understand the sentiment," he admitted, "which favors the retention of a few buffaloes to the development of mining interests amounting to millions of dollars."

But to Representative William McAdoo of New Jersey, Yellowstone performed a larger function. Answering



*Yellowstone Superintendent Horace M. Albright at the fiftieth anniversary celebration.*

*National Park Service*

Payson, he pointed out that the park also preserved wilderness which the railroad would destroy even if it did not harm the hot springs. He added that the park had been created for people who might care to seek "in the great West the inspiring sights and mysteries of nature that elevate mankind and bring it closer communion with omniscience" and that it "should be preserved on this, if for no other ground." McAdoo continued with a vindication of the principle of wilderness preservation: "the glory of this territory is its sublime solitude. Civilization is so universal that man can only see nature in her majesty and primal glory, as it were, in these as yet virgin regions." In conclusion he put the issue in terms that previous advocates of wilderness had long used, pleading with his colleagues to "prefer the beautiful and sublime . . . to heartless mammon and the greed of capital."<sup>25</sup>

A vote followed in which the railroad's application for a right-of-way was turned down 107 to 65. Never before had wilderness values withstood such a direct confrontation with civilization.

Recognition of the wilderness attributes of Yellowstone National Park also appeared in the 1886 report of Secretary of the Interior Lucius Q. C. Lamar. In a manner reminiscent of George Catlin and Francis Parkman, he interpreted the intention of Congress in establishing the park as "the preservation of wilderness of forests, geysers, mountains . . . and the game common to that region in as nearly the condition of nature as possible, with a view to holding for the benefit of those who shall come after us something of the original 'wild West' that shall stand while the rest of the world moves, affording the student of nature and the pleasure tourist a restful contrast to . . . busy and progressive scenes." In fact, Lamar was wrong in his interpretation of Congress' purposes. With the exception of the geysers and game this had not been the reason for action in 1872, but from Lamar's vantage point almost fifteen years later, it seemed increasingly credible that the park was a wilderness preserve and should be defended as such. And in 1892, twenty years after the Yellowstone Act, Senator William B. Bate of Tennessee explained its purpose as protecting a region for Americans who desired to see "primeval nature, simple and pure."<sup>26</sup> Certainly not all Americans at the time agreed, or even cared about Yellowstone, but Bate's opinion was a harbinger. By 1890, the State of New York established a 715,000-acre "Forest Preserve in the Adirondacks" to be kept forever as wild forest lands.<sup>27</sup> Those justifying the Adirondack wilderness, like Yellowstone supporters, began to turn to non-utilitarian arguments. The rationale for wilderness preservation was gradually catching up with the ideology of appreciation.

From Chapter 7 of *WILDERNESS AND THE AMERICAN MIND*. Copyright (c) 1967 by Yale University. Reprinted by special permission.

## NOTES

<sup>1</sup>For Yellowstone's seminal importance in the history of world preservation see Ise, *National Park Policy*, pp. 658-69; C. Frank Brockman, *Recreational Use of Wild Lands* (New York, 1959), pp. 259-311; Carl P. Russell, "Wilderness Preservation," *National Parks Magazine*, 71 (1944), 3-6, 26-28; Lee Merriman Talbot, "Wilderness Overseas," in *Wildlands in Our Civilization*, ed. David Brower (San Francisco, 1964), pp. 75-80; and Charles E. Doell and Gerald B. Fitzgerald, *A Brief History of Parks and Recreation in the United States* (Chicago, 1954), pp. 12-22.

<sup>2</sup>Merril J. Mattes, "Behind the Legend of Colter's Hell: The Early Exploration of Yellowstone National Park," *Mississippi Valley Historical Review*, 36 (1949), 251-82; Hiram M. Chittenden, *The Yellowstone National Park* (Cincinnati, 1915), pp. 1-73; Merrill D. Beal, *The Story of Man in Yellowstone* (Caldwell, Idaho, 1946).

<sup>3</sup>C. W. Cook [i.e., David E. Folsom], "The Valley of the Upper Yellowstone," *Western Monthly*, 4 (1870), 60-67; David E. Folsom, "The Folsom-Cook Exploration of the Upper Yellowstone in the Year 1869," *Contributions to the Historical Society of Montana*, 5 (1904), 349-69. An excellent recent edition of the accounts stemming from the 1869 exploration is Aubrey L. Haines, ed., *The Valley of the Upper Yellowstone . . . As Recorded by Charles W. Cook, David E. Folsom, and William Peterson*, American Exploration and Travel Series, 47 (Norman, Okla., 1965). A secondary study is W. Turrentine Jackson, "The Cook-Folsom Exploration of the Upper Yellowstone, 1869," *Pacific Northwest Quarterly*, 32 (1941), 307-22.

<sup>4</sup>Olin D. Wheeler, "Nathaniel Pitt Langford," *Collections of the Minnesota Historical Society*, 15 (1915), 631-68; Chittenden, *Yellowstone*, p. 339.

<sup>5</sup>Wyllis A. Hedges, "Cornelius Hedges," *Contributions to the Historical Society of Montana*, 7 (1910), 181-96; Louis C. Cramton, *Early History of Yellowstone National Park and its Relation to National Park Policies* (Washington, D.C., 1932), p. 13.

<sup>6</sup>W. Turrentine Jackson, "The Washburn-Doane Expedition into the Upper Yellowstone, 1870," *Pacific Historical Review*, 10 (1941), 189-208.

<sup>7</sup>The following accounts of participants substantiate the lack of interest in wilderness: Nathaniel P. Langford, "The Wonders of the Yellowstone," *Scribner's Monthly*, 2 (1871), 1-17, 113-28; Langford, *The Discovery of Yellowstone Park, 1870: Diary of the Washburn Expedition to the Yellowstone and Firehole Rivers in the Year 1870* (St. Paul, Minn., 1905); Walter Trumbull, "The Washburn Yellowstone Expedition," *Overland Monthly*, 6 (1871), 431-37, 489-96; Gustavus C. Doane, *The Report of Lieutenant Gustavus C. Doane upon the so-called Yellowstone Expedition of 1870*, 41st Cong., 3d Sess., Senate Ex. Doc. 51 (March 3, 1871); and "Journal of Judge Cornelius Hedges," *Contributions to the Historical Society of Montana*, 5 (1904), 370-94.

<sup>8</sup>Langford, *Discovery of Yellowstone*, pp. 117-18.

<sup>9</sup>Aubrey L. Haines, Park Historian, Yellowstone National Park, sustained this analysis in a letter to the author, March 24, 1964. Neither was preserving the wilderness a factor in the previous suggestions by Acting Territorial Governor Thomas E. Meagher (1865) and David E. Folsom (1869) that a park be established: Francis X. Kuppens, "On the Origin of the Yellowstone National Park," *Jesuit Bulletin*, 41 (1962), 6-7, 14; Aubrey L. Haines, "History of Yellowstone National Park," (mimeographed Ranger Naturalist Training Manual, Yellowstone National Park, n.d.), pp. 110-18; Cramton, *Early History*, p. 11; W. Turrentine Jackson, "The Creation of Yellowstone National Park," *Mississippi Valley Historical Review*, 29 (1942), 188-89.

<sup>10</sup>Washington, D.C. *Daily Morning Chronicle*, Jan. 20, 1871;

New York Times, Jan. 22, 1871.

<sup>11</sup>Langford, "The Wonders of the Yellowstone," 1-17, 113-28.

<sup>12</sup>Richard A. Bartlett, *Great Surveys of the American West* (Norman, Okla., 1962), pp. 4 ff.; Wallace Stegner, *Beyond the Hundredth Meridian: John Wesley Powell and the Second Opening of the West* (Boston, 1954), pp. 174 ff.; Wilkins, *Moran*, pp. 57-71; William Henry Jackson Papers, State Historical Society of Colorado, Denver, Colorado; Clarence S. Jackson, *Picture Maker of the Old West*; William H. Jackson (New York, 1947), pp. 81 ff.; William Henry Jackson, *Time Exposure: The Autobiography of William Henry Jackson* (New York, 1940), pp. 196 ff.

<sup>13</sup>New York Times, Oct. 23, 1871.

<sup>14</sup>As quoted in Bartlett, *Great Surveys*, p. 57. The Northern Pacific Railroad was interested in Yellowstone from the time of the first expeditions. Jay Cooke helped finance the lectures that Langford gave early in 1871 and quite probably paid the expenses necessary to insure a speedy passage of the park bill through Congress: Ellis P. Oberholtzer, *Jay Cooke: Financier of the Civil War* (2 vols. Philadelphia, 1907), 2, 226-36, 316; Henrietta M. Larson, *Jay Cooke: Private Banker* (Cambridge, Mass., 1936), pp. 254 ff.

<sup>15</sup>F. V. Hayden, "The Hot Springs and Geysers of the Yellowstone and Firehole Rivers," *American Journal of Science and Art*, 3 (1872), 176. In his other published writings Hayden failed to demonstrate the slightest awareness of the wilderness attributes of Yellowstone: see "The Wonders of the West II: More About the Yellowstone," *Scribner's Monthly*, 3 (1872), 388-96; *Preliminary Report of the United States Geological Survey on Montana and Portions of Adjacent Territories: being a Fifth Annual Report of Progress* (Washington, D.C., 1872), and *The Great West* (Bloomington, Ill., 1880), pp. 1-88.

<sup>16</sup>As quoted from the report on the Yellowstone bill by the House Committee on the Public Lands in Hayden, *Preliminary Report*, p. 163.

<sup>17</sup>*Congressional Globe*, 42d Cong., 2d Sess., I (January 30, 1872) p. 697.

<sup>18</sup>Jackson, "The Creation of Yellowstone National Park," 187 ff.; Cramton, *Early History*, pp. 24-28; Jackson, *Picture Maker of the Old West*, pp. 145-58.

<sup>19</sup>U.S., *Statutes at Large*, 17, p. 32.

<sup>20</sup>*Ohio State Journal* as quoted in Jackson, "The Creation of Yellowstone National Park," 199; *New York Herald*, Feb. 28, 1872; Edwin J. Stanley, *Rambles in Wonderland* (New York, 1880), p. 63; *New York Times*, Feb. 29, 1872; "The Yellowstone National Park," *Scribner's Monthly*, 4 (1872), 121.

<sup>21</sup>Helena, Mont., *Rocky Mountain Gazette*, March 6, 1872.

<sup>22</sup>Hayden, *Preliminary Report*, p. 162; Theodore B. Comstock, "The Yellowstone National Park," *American Naturalist*, 8 (1874), 65-79, 155-66; George Bird Grinnell to the editor of the *New York Times*, *New York Times*, Jan. 29, 1885; Arnold Hague, "The Yellowstone Park as a Forest Reservation," *Nation*, 46 (1888), 9-10.

<sup>23</sup>*Congressional Record*, 47th Cong., 2d Sess., 14 (March 1, 1883), p. 3488. For a discussion of the administrative history of the park see Haines, "History of Yellowstone National Park," pp. 119-37 and his "Yellowstone's Role in Conversation," *Yellowstone Interpreter*, I (1963), 3-9, along with Ise, *National Park Policy*, pp. 20 ff.

<sup>24</sup>*Congressional Record*, 49th Cong., 2d Sess., 18 (Dec. 11, 1886), p. 94, (Dec. 14), p. 150.

<sup>25</sup>*Ibid.* (Dec. 14), pp. 152, 153, 154.

<sup>26</sup>United States Department of the Interior, *Annual Report for 1886* (Washington, D.C., 1886), p. 77; *Congressional Record*, 52d Cong., 1st Sess., 23 (May 10, 1892), p. 4124.

<sup>27</sup>*New York Laws*, 1885, Chap. 238, p. 482.

## RODERICK NASH

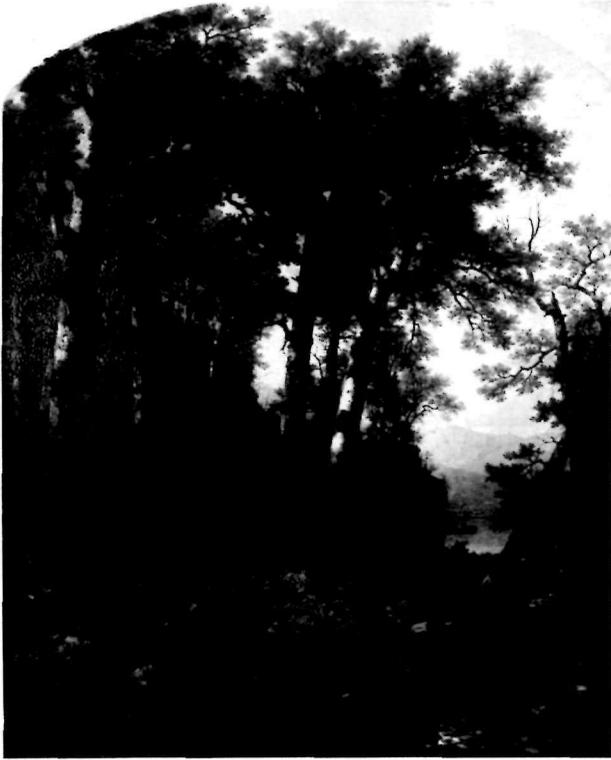
Roderick Nash is Associate Professor of History and Environmental Studies and Co-Chairman of Environmental Studies at the University of California, Santa Barbara. A recognized authority on wilderness history, he has published many articles on wilderness and conservation and numerous books including *WILDERNESS AND THE AMERICAN MIND* (1967) and *THE AMERICAN ENVIRONMENT: READINGS IN THE HISTORY OF CONSERVATION* (1968). He is president of the Southern California chapter of the American Studies Association and a member of the Explorers Club, the Western River Guides Association, and a national committeeman in the Sierra Club.

Dr. Nash has been chosen to participate in the National Symposium on Parks and the Future to be held at Yosemite National Park, April 13-15, 1972. The symposium is a major event of the National Parks Centennial Celebration, and is being organized and sponsored by The Conservation Foundation.

THE UNIVERSE  
OF WILDERNESS  
IS

YANISLINS





Asher B. Durand (1796-1886) *EDGE OF THE FOREST*.  
The Corcoran Gallery of Art, Washington, D.C.

I know that someday I will read about a road being projected down the gorge of the Green River. I have read similar articles about many other wildernesses. The article will state how many miles the distance between Vernal and Moab will be shortened, how many men will get work, how many tourists will leave their money along the route, how many millions of dollars it will cost the government. The article will say nothing about whether all of these values might not be less important than the value that one person could formerly experience while sitting alone with infinity. It will say nothing of the great gashes quickly dynamited by man into the timeless rocks that previously had been gashed only by the forces of geologic ages. It will say nothing of a universe destroyed.

Yet the universe of the wilderness, all over the United States, is vanishing with appalling rapidity. It is melting away like the last snowbank on some south-facing mountainside during a hot afternoon in June. It is disappearing while most of those who care more for it than anything else in the world are trying desperately to rally and save it.

To many the story of the vanishing wilderness will bring only a negative response. "What's the difference; where's the loss?" they will say. "Only romantic children imagine that we can bring back the days of Lewis and Clark. Let's grow up and realize that primitive adventure is an unnecessary luxury we can't afford."

I would answer that we can afford to sacrifice almost any other value for the sake of retaining something of the primitive. It is not a new idea, for Thoreau, more than 80 years ago, wrote: "Our life would stagnate if it were not for the unexplored forests and meadows which surround it. We need the tonic of wilderness. We can never have enough of nature. We must be refreshed by the sight of inexhaustible vigor, vast and titanic features, the seacoast with its wrecks, the wilderness with its living and decaying trees."

To countless people the wilderness provides the ultimate delight because it combines the thrills of jeopardy and beauty. It is the last stand for that glorious adventure into the physically unknown that was commonplace in the lives of our ancestors, and has always constituted a major factor in the happiness of many exploratory souls. It is also the perfect esthetic experience because it appeals to all of the senses. It is vast panoramas, full of height and depth and glowing color, on a scale so overwhelming as to wipe out the ordinary meaning of dimensions. It is the song of the hermit thrush at twilight and the lapping of waves against the shoreline and the melody of the wind in the trees. It is the unique odor of balsams and of freshly turned humus and of mist rising from mountain meadows. It is the feel of spruce needles under foot and sunshine on your face and wind blowing through your hair. It is all of these at the same time, blended into a unity that can only be appreciated with leisure and which is ruined by artificiality.

\* \* \* \* \*

Last autumn I drove over a new highway that took me by a lakelet in the Rocky Mountains. I had been to that lakelet about seven years before. At that time it was just out there among the trees in the wilderness, with all that you could see and hear and feel in harmony with the primitive. I remember there were half a dozen ducks swimming around near the inlet, as unconcernedly as if they had never seen a human being before. Everything about the place, from the bright green sedges that surrounded the lake, to the lodgepole-covered mountain sides that rose from its shores, to the rock-covered pinnacles that jutted far above it, was a perfectly new, untrammelled world, just as if it had come fresh from the dawn of time. It was far beyond the outposts of civilization, where only the competent and the adventuresome could delight.

But last autumn that whole world was changed. I was driving by just another body of water to be glimpsed for a few minutes; driving by in a closed automobile, over a broad highway. I had the feeling that the road and the auto and I were just a bit of any city, rudely dumped into the primitive I had known, completely shattering every impression of the untrammelled. The former thrill to all of my senses was crushed out by the great, scarring avenue, the gas-filled atmosphere, and the noise and stuffiness of a closed automobile. Gone too was the exhilaration of competence. There was no more adventure than on the sidewalks of Central Park. Lodgepole-covered mountain sides yet rose in the background, and there were still jagged

peaks, but the whole effect was of something totally different and of something vastly inferior.

In pointing out the damage that this road did, I am not stating positively that it was not justified. I am sure that the beauty that can yet be seen has brought additional joy into the lives of many people who would never have been able to visit the area as a wilderness but who still derive some thrill from this inferior version of the original, somewhat as the old lady who can't ever have the opportunity of seeing the real portrait of Whistler's Mother still gets a thrill from the modified version on the postage stamp. Unfortunately, however, my analogy is not complete. While Whistler's-Mother-on-the-postage-stamp did not in the least damage the original painting, the road to which I have alluded had wrecked the values of the wilderness. It was as much of a discord on the shore of this western lakelet as it would be if the Philadelphia Orchestra were suddenly to stop in the middle of Schubert's *Unfinished Symphony* and break into the strains of *Dancing Cheek to Cheek*.

\* \* \* \* \*

Wilderness skeptics in almost all arguments raise the question: "Why should we set aside a vast area for the enjoyment of a few hundred people when roads would make that area available for half a million? Aren't we obligated to consider what will bring the greatest good to the greatest number?"

Albert Bierstadt (1830-1902) *MOUNT CORCORAN. The Corcoran Gallery of Art, Washington, D.C.*



The doctrine of the greatest good to the greatest number does not mean that this laudable relationship has to take place on every acre. If it did, we would be forced to change our metropolitan art galleries into metropolitan bowling alleys. Our state universities, which are used by a minor fraction of the population, would be converted into state circuses where hundreds could be exhilarated for every one person who may be either exhilarated or depressed now. The Library of Congress would become a national hot dog stand, and the new Supreme Court building would be converted into a gigantic garage where it could house a thousand people's autos instead of Nine Gentlemen of the Law.

\* \* \* \* \*

All the while, year after year, the United States becomes more and more mechanized. The life of one person after another has been saturated by machinery. Human beings require compensations, and it seems inevitable that as the machine age expands the need for an escape will also expand. It is this need that has already been reflected in the increased use of the primitive, and the craze for skiing. Certainly, it will be immensely expanded in the future as the cost of primitive trips becomes lower, the average income higher, and the need for an escape from the all-abounding machinery more intense.

continued

Of course, non-primitive forms of recreation will continue to bring joy into the lives of multitudes to whom the true wilderness would be as unattainable as the canals of Mars. However, this should not mean that the minority that is able to enjoy the far greater elation of wilderness travel must have every primeval tract destroyed by routes of facile transportation. It would seem only reasonable that the available outdoors should be divided among both types of enjoyment. Each group should be tolerant enough to respect the variety of pleasure that the other desires. Similar tolerance is the accepted rule with most types of esthetic experience. The old lady who admires the postage stamp replica of Whistler's Mother does not demand that the original be destroyed. The person who prefers the jazzy strains of *Dancing Cheek to Cheek* to the *Unfinished Symphony* does not insist that the Philadelphia Orchestra should alter its program in order to appease his musical taste and wreck those of the symphony lovers.

It would seem just as possible for the person who enjoys the outdoors by motor to obtain in ample extent his favorite recreation without extinguishing much more of the primitive. There are already about 3,500,000 miles of roads in the United States, enough at 50,000 miles a year to last a person 70 years, with the opportunity for building a large additional mileage of splendid scenic value without invading any important wilderness areas. America is big enough and rich enough for both primitive and non-primitive recreation, if there is some subordination of selfishness and rational, balanced planning.

\* \* \* \* \*

All types of commercial land use conflict fatally with primitive values. The commercial activities that today most frequently invade the wilderness are irrigation, waterpower development, mining, grazing and logging.

\* \* \* \* \*

If we do our logging in a way that will enable the forest to reproduce itself, there will be no difficulty in growing all the wood we require on three-quarters of our forest area. If we continue to deplete permanently most of the area that we log, then we will cut every acre of timberland in the country and exhaust our wood supply.

\* \* \* \* \*

The world is full of conflicts between genuine values. Often these conflicts are resolved entirely from the standpoint of one of the competing values, and thus whole categories of human enjoyment may be needlessly swept away. It is far more conducive to human happiness to attempt some rational balance that will make possible for the immensely different types of people the varied values they crave. Emphatically this is true of the conflict between the values created by the modification of nature and the values of the primitive.

Unfortunately, such rational balance will not be likely unless the well-organized groups who desire to invade the wilderness are counteracted by well-organized groups for its defense. Legislators, and through them government bureaus, are controlled in the final analysis by public pressure, and if this pushes entirely from one direction, effective balancing of values is impossible. Therefore, the fate of unmodified nature rests in the activity of its friends. If they continue to be too busy or too indifferent to unite its defense, then the universe of the wilderness is doomed to early extinction. If, on the other hand, they believe that its preservation is worth the sacrifice of some precious time and energy, and if they will take the trouble to become vociferous, there is no reason why material areas of America should not be kept primitive forever.

*Robert Marshall, 1937*

*Reprinted by permission from the April 1937 issue of NATURE Magazine.*

## ROBERT MARSHALL



Courtesy of The Wilderness Society

*Robert Marshall (1901-1939) was a forester, conservationist, wilderness exponent and one of the founders of The Wilderness Society in 1935. A 1924 graduate of the New York State College of Forestry, he earned a Master of Forestry degree at Harvard Forest, Petersham, Massachusetts, and a PhD. at the Laboratory of Plant Physiology, Johns Hopkins University. He worked at different times for the U.S. Forest Service and for four years was director of forestry in the Office of Indian Affairs. His publications include HIGH PEAKS OF THE ADIRONDACKS (1922), THE PEOPLE'S FORESTS and ARCTIC VILLAGE (1933). He was a member of the Adirondack Mountain Club, the Explorer's Club, the Society of American Foresters, The Wilderness Society, and various other conservation, outdoor and civic organizations.*



SWISS NATIONAL TOURIST OFFICE

The summer ski area of Pontresina, Grisons, Switzerland, where glacier skilifts and ski schools are operated from June until September each year.

**J**here is a type of nature-lover I call the "purist-conservationist." His chief characteristic is that he is against everything. He is against crowds. He is against restaurants, filling stations, overnight accommodations, ski lifts, ice rinks, and especially roads.

The purist has very strong ideas about who deserves to enjoy natural beauty. Ideally, the purist would reserve beauty for those who are willing, in ascending order of purity, to walk, hike, climb, crawl, or cliff-hang to achieve it.

The purist believes that those who do not agree with him desire to "rape" the landscape, a favorite phrase whose significance in purist mythology I shall leave to Freudian psychologists.

Once I was a purist.

Yes, I, too, staggered through the wilderness, my 50-pound pack on my back, achieving virtue with every upward step (and permanently compressing the discs in my spine).

I, too, struggled to the top of Mt. Whitney, there to think beautiful thoughts.

I, too, hiked the length of the John Muir Trail, glorying in its beauty and feeling vastly superior to the rest of humanity. (Being a purist at the time, I did not stop to think that the rest of humanity could not, as a student could, take a whole summer off to hike 200 miles, and that very few people are in physical condition to backpack for eight weeks at 10,000 feet, even if they had the time.)

And even in later years, when the press of law practice kept me physically away from the wilderness, in spirit I remained a purist. Keep those roads and crowds out, I said!

But no more.

Recently, for the first time in my life, I made a trip to Switzerland. That was the end of my purist ethic. What I saw in Switzerland made an unbeliever out of me.

The most amazing thing about Switzerland was not its natural beauty—I was prepared for that, having seen pictures of it for years (and the reality lives up to the pictures, I might add, which is rare these days)—but rather the fact that I discovered that virtually every part of Switzerland was accessible, was thoroughly used by people of all

# The Wilderness: just how wild should it be?

Copyright, 1970, LOS ANGELES TIMES. Reprinted with Permission. LOS ANGELES TIMES/WASHINGTON POST News Service.

By Eric Julber

Trends

shapes and ages, and was in fact exploited to the ultimate.

Switzerland is criss-crossed with roads, some in use since Roman times; its mountain valleys are heavily grazed and farmed; hotels and restaurants are everywhere, even on the tops of some mountain peaks. Where the automobile cannot go, railroads will take you; and when the going gets too steep for the cog-wheel trains, you catch an aerial tramway, suspended on a wire.

Many of the most remarkable viewpoints are accessible by some type of comfortable transportation, so that all over Switzerland people sit on restaurant patios, 10,000 feet high, eating pastry and admiring nature—and they got there without walking.

(And when I say people, I mean lots of them, for tourism is Switzerland's primary industry. When the summer tourists leave, the skiers move in to the same facilities.)

In short, Switzerland, in theory, is everything the purist in America despises. It is roads, rails, restaurants, hotels, crowds and filling stations. It is beauty made easy. It is comfort. It is climbing without suffering.

By purist standards, Switzerland has been raped.

But our purists, in their endless sermons, never mention Switzerland. Why not? Why aren't they weeping bitter tears over that poor denuded landscape? Why no finger-pointing to this horrible example, with stern warnings that This Could Happen Here?

Why not? Because it would be ridiculous. Because Switzerland is beautiful, and its comforts add to its charm. And most of all because Switzerland is the living refutation of the purist ethic.

The purist ethic says: Keep people out. The Swiss ethic says: Invite them in, the more the better.

The purist says: Only the strong deserve to see beauty. The Swiss say: Let the strong climb if they choose, but let the children, the aged, the hurried, and the just-plain-lazy ride.

(There are, of course, purists in Switzerland, too. They climb all day to get to the same spot everyone else has taken a tram to get to.)

The purist says: Beauty should be won by struggle, not by a ride in an

SWISS NATIONAL TOURIST OFFICE



Lunch atop Muottas Muragl overlooking the Upper Engadine Lakes in the Swiss Alps.

Tourists view the Bernina Peaks as an aerial cable car carries them to the Diavolezza, Grisons, Switzerland.

SWISS NATIONAL TOURIST OFFICE



aerial tram. I, who have now done it both ways, say: My thoughts were just as beautiful on top of the Schilt-horn (elev. 9,748 feet, restaurant lunch of fondue, wine, strawberry pastry and coffee; reached by 30-minute tram ride) as they were on top of Mt. Lyell in Yosemite (elev.

use of our natural beauty, using some examples from our Far West:

1—Provide access to the John Muir Trail.

This trail traverses 200 miles of mountain grandeur, running from Mt. Whitney to Yosemite. Its southern end is just 200 miles from Los

This stupid state of affairs results in a situation where, to cite just one example, in California we have children who in their whole lives will never see, or jump upon, or slide down, a glacier. To them, a glacier will always be "a body of perpetual snow, found largely in Alaska or in



*Half Dome, Yosemite National Park, California.*

*National Park Service*

13,090 feet, lunch of peanut butter sandwich; reached by two-day hike).

It is time to junk the purist ethic; our adherence to it is causing us to starve for recreational facilities in the midst of plenty, much as Hindus starve but will not eat the sacred cows which wander all around them.

Let me go further. Let me make some specific suggestions for greater

Angeles, its northern end just 200 miles from San Francisco. But for all practical purposes, it is inaccessible, for no roads touch it except at its two ends; to reach its most beautiful sections one must hike over mountain passes averaging 10,000 feet, and there are no supplies available on the trail so one must backpack up to four weeks' worth.

Switzerland."

Yet, along the John Muir Trail there are active glaciers (37, according to the Sierra Club Guide) waiting to be gazed upon and slid upon by children with sleds, even in mid-summer. If the purists continue to prevail, however, California child and California glacier will never meet.

Why not install aerial tramways at

three or four locations from the Owens Valley to the John Muir Trail, crossing at points such as Kearsarge Pass, Bishop Pass and Piute Pass. All these are within easy driving distance of Los Angeles. An hour after arrival at the tramway base, a family could be up in a land of peaks, alpine meadows, glaciers and lakes by the dozens, to stay for a few hours or to hike and camp for days or weeks. Or, in winter, to ski in an incomparable setting.

2—Put an aerial tramway in Grand Canyon.

The visitor to Grand Canyon cannot get from the South Rim to the North Rim (a distance of 10 miles) without driving 300 miles around, and he cannot get to the bottom of the canyon except by foot or mule-back.

So the visitor is stuck. All he can do is stand on the rim and look, as at a picture.

I would install an aerial tramway in an inconspicuous fold of the canyon, so that visitors could ride from the South Rim to the bottom (the most interesting part of the canyon) and from the bottom to the North Rim, thus getting a feel for its immense depths and not just gazing as at a picture postcard.

3—Put a hotel and restaurant on top of Half Dome.

The top of Half Dome, in Yosemite, is an area of many acres of flat

granite, 8,852 feet high, with spectacular views of the High Sierra and Yosemite Valley. It can be reached only by an arduous climb up its backside, during the last of which the climber must hold on to steel cables installed many years ago (by non-purists, obviously. Yet the purists never seem to mind hanging on quite tightly to these cables, even though it would seem that this should offend their principles.)

I would install an aerial tramway from the valley floor to Nevada Fall, thence up the backside to the top of Half Dome. The restaurant at the top would be one of the great tourist attractions of the world, and I would go further and provide a hotel (set back from the edge so as to be invisible from the valley) so that ordinary people could spend a spectacular night on a mountain top and watch the sun come up over the Sierra Nevada.

In the 19th century, the obligatory romantic experience for Europeans was to watch the sun come up over the Alps from the mountain-top hotel at Rigi, just outside Lucerne (Mark Twain, among others, did it). The hotel at Rigi is still there, and the sun still rises. It is spectacular, but sunrise from Half Dome would beat it.

If the Swiss can do it, why can't we?

And that brings up the ultimate argument that purists always fall back upon: that the Swiss can do these things with taste, judgment and reverence for the landscape, but we Americans would botch it up.

This is neither altogether true nor altogether false. We Americans are just as capable of tasteful building as Europeans—see, for example, the beautiful Palm Springs tramway, which has now carried 2 million passengers (the purists fought it, tooth and nail). We are also capable of abominations, such as permitting PG&E\* to build a hideous power plant in front of Morro Rock and utterly spoiling what was once a lovely scene.

I believe that with the help of enlightened conservationists—not purists—we can do it, and do it as well as the Swiss. And I think that increased access to our scenery will produce a greater appreciation of it in Americans, as access to beaches produces beach lovers.

In the meantime, until my ideas filter into public consciousness and we get those tramways to the Muir Trail, I will go back to Switzerland each summer to "study conditions," as the politicians say. You'll find me on the Schilthorn (elev. 9,748 feet), eating more fondue.

\*Pacific Gas & Electric Co.

## ERIC JULBER

*Eric Julber is a trial lawyer specializing in maritime cases. An avid hiker and nature photographer, he is a former member of the Sierra Club.*



*Is  
the*

*This speech was presented at the  
Twelfth Biennial Sierra Club Wilder-  
ness Conference held in Washington,  
D.C., on September 24, 1971.*

# *Wilderness Act Working?*

By Michael McCloskey

A little more than seven years ago, in this city, the Wilderness Act was signed. Conservationists had hoped it marked the end of a long struggle—that with its passage the protection of wilderness would be assured. Instead, the Wilderness Act signaled the beginning of a new struggle.

This was so because in securing the Act's passage, conservationists were forced to accept a compromise. The compromise, demanded by the House Interior Committee Chairman, Wayne Aspinall, required congressional approval of every wilderness area added to the National Wilderness Preservation System. The requirement of "affirmative action by Congress in the designation of Wilderness Areas" was one of the political prices we had to pay to get the Act through Congress.

It is time to recognize how high a price we paid. The burdens of seeking affirmative action from Congress that have fallen upon the conservation movement have been heavy, and we all wondered at the outset whether we could carry them. But we have, and in the process our organizations—the Sierra Club, the Wilderness Society and others—have all grown stronger. In one sense, the burdens have been good for us. They have deepened and strengthened the public's understanding of the need

for wilderness. On the other hand, the burdens have been growing, too. It is becoming increasingly difficult to overcome the obstacles in the way of timely and forthright congressional action.

By 1971, the seventh year out of ten provided for reviewing potential candidates for the Wilderness System, federal agency reviews were to be two-thirds complete. Out of a total 179 areas, reviews should now be complete on 119. To date, proposals have been forwarded to Congress on only sixty. Congress in turn has acted on only thirty-three. Out of the potential 66,440,387 acres, only 10,411,000 acres are now in the Wilderness System. The National Forest Service has made the most progress: seven of its thirty-four primitive areas have been reclassified and added to the system, amounting to about one million acres. The Bureau of Sport Fisheries and Wildlife now has twenty-four units in the system, comprising only about 83,000 acres. The bulk of its acreage must still be processed. The National Park Service has had only two of its units added, totaling about 150,000 acres. More than twenty-seven million acres of park land remain to be processed—twenty-one million acres of refuges and some seven million acres of U.S. Forest Service lands.

continued

It is time to recognize that the formula for affirmative action is not working. It is apparent that the deadlines of the Wilderness Act will not be met. Probably all of the agency recommendations will not be before Congress by 1974.

In his Seventh Annual Report to Congress on the Status of the National Wilderness Preservation System, President Nixon does not explain how the executive branch intends to meet the statutory schedule. Only the Forest Service expresses the hope that it can meet the deadline. The National Park Service and the Bureau of Sport Fisheries and Wildlife make no effort to explain their

situations. In fact, the Park Service is armed with a Solicitor's opinion asserting that failure to meet the deadline does not really make much difference.

It is also apparent that neither the executive branch nor the Congress is trying to make the Wilderness Act work. Some persons in both branches may be trying, but the branches as a whole are not. Conservationists have been critical of the agencies and the National Park Service in particular in this regard. But it may be time to lay the blame where it most belongs—on Congress. Agencies are probably tailoring their limited proposals to suit powerful members of Congress

because they know these members are not pressing for more wilderness area proposals.

Remember, Congress insisted on this agonizing review procedure. In its inherent design, the procedure is delay-oriented. By requiring every addition to the Wilderness System to run the twenty-four steps of the legislative gauntlet and countless other steps in the process of administrative review, Congress has maximized the opportunities for obstruction by our opponents. In each instance, there are more than two dozen chances to bottle-up a proposal and this bottling system is working with dismaying efficiency.

*The Rogue River, a designated National Wild and Scenic River in Oregon.*

*U.S. Forest Service*





*Picturesque old foxtail pines high up in the Cottonwood Lakes section of the High Sierra Wilderness Area, Inyo National Forest, California.*

When the Act was passed, conservationists feared this result. But we wanted to believe in the good faith of those who insisted that such a system of affirmative designation would work. Perhaps we had no alternatives then. But, it is time to face reality. Representative Aspinall did not promise to enact most bills for additions to the Wilderness Sys-

tem. He only said that "none of these added areas can be classified as wilderness or incorporated into the Wilderness System except by Act of Congress." He did not predict what Congress would do when it got the proposals. Now, we see that Congress has added thirty-three areas totaling 1.2 million acres to the Wilderness System—two percent of the poten-

tial acreage that might be in the system. With sixty-seven percent of the time elapsed, Congress has added only two percent.

Clearly, there is a demonstrable lack of leadership in Congress in processing wilderness legislation in a fashion that keeps faith with the intent of the Wilderness Act. Moods of congressional committees range

*A bison herd grazes in the Wichita Mountains Wildlife Refuge, Oklahoma.*

*Bureau of Sport Fisheries and Wildlife*



*Mt. Redoubt, North Cascades National Park, Washington, proposed addition to the National Wilderness Preservation System.*



National Park Service

from desultory to intractable. No action has been scheduled in the House of Representatives this session on wilderness legislation, with the exception of two items carried over from last year. Further progress may be held up for years over disputes on legislation stemming from the report of the Public Land Law Review Commission.

While the Senate has moved somewhat faster, its record is still not good. Some bills have languished before the Senate Interior Committee through three congresses. Continued progress will be slow, because many remaining Wilderness Area proposals are the most controversial.

Rather than exhaust our energies trying to hasten congressional action, it is time to correct the flaw in the Wilderness Act that required this agonizingly slow procedure in the first place.

We have embarked upon this effort. The Sierra Club was instrumental in putting before President Nixon a proposal for an Executive Order to preserve the status quo on all roadless portions of national parks and wildlife refuges and in roadless areas adjoining primitive areas until the President and Congress determine their suitability as wilderness. In this way, wilderness would be preserved until a proposal for its inclusion in the Wilderness System is finalized. The Secretary of Agriculture also would be directed to inventory and protect all other de facto wilderness in the national forests.

Although this Executive Order has not yet been signed, it has the backing of the Council on Environmental Quality and the Secretary of Interior. It faces opposition from the Secretary of Agriculture, the Forest Service and the forest products industry. At this conference, let us resolve to redouble our effort to persuade President Nixon to sign this order. The order asks no more than that our opportunities be respected while we deliberate. Nothing could be more basic to the deliberative process than to preserve the subject matter while a debate is underway.

If the President fails to act—and he has the authority under the broad organic acts for the agencies involved—then our only option is to try to amend the Wilderness Act

itself. Despite the Act's original flaws, we were reluctant to face this prospect until now. We felt it should be given a fair chance and that we should not risk exposing ourselves to the possibilities of further weakening amendments. But I believe we are now strong enough to block any setback, and that this Act has been tried and found wanting.

We need an omnibus amendment to the Wilderness Act placing all of our proposed units in the Wilderness System. The amendment should require congressional action only to override agency action; it should extend interim protection to de facto wilderness until proposals are forthcoming and disposed of; it should end the special dispensations for mining in wilderness areas and provide a program to condemn the miners'

inholdings; and it should clarify various technical questions relating to administration of the Wilderness System.

While the campaign for a new and better Wilderness Act will be long and arduous, the sooner we begin, the better. This effort at reform should be our answer to the failures of Congress and the executive branch to keep faith with the goals of 1974. We should look to 1974 as the beginning of a well-planned campaign for these reforms.

Our wilderness can only be as safe as our legal tools are fit to protect it. Clearly, these tools are not adequate now. Let us begin the quest for the tools we need. We will not have a generous legacy of wilderness unless we get them. Our need for wilderness demands that we do.

## MICHAEL McCLOSKEY



Photo by Ralph Eugene Smith

*Michael McCloskey has been executive director of the Sierra Club since 1969. From 1961 to 1965, he represented the club and the Federation of Western Outdoor Clubs in the Pacific Northwest. As conservation director of the Sierra Club (1966-69), he coordinated its successful campaigns to establish a Redwood National Park, a North Cascades National Park and various wilderness areas. Listed in LEADERS IN AMERICAN CONSERVATION, he has published numerous articles in conservation and law journals. He holds an A.B. from Harvard University and an LL.B from the University of Oregon.*

# Public Hearings: "Show and Tell Time" for Wilderness

By Robert B. Kasparek

*Ladies and gentlemen, the hearing will please come to order. Today we are going to talk about the management of a precious resource . . .*

Thus begins another formal public hearing as required by the Wilderness Act concerning a wilderness suitability study. Just how valuable are these hearings to the management of wilderness resources? Does the public take advantage of this opportunity to let resource managers know its wants? How responsive are the managing agencies—the Forest Service, the Bureau of Sport Fisheries and Wildlife, and the National Park Service?

The public hearing and its results are one of the most important phases of the wilderness establishment process. For each area studied, each agency must prepare a statement about the area's wilderness suitability and present this statement at a field public hearing. The responses received at the hearing are carefully considered in reaching the conclusions and the final recommendations that are made concerning the wilderness proposal.

The management implications of the Wilderness Act and the opinions, experience and insights gained through the public hearings process have caused the Departments of Agriculture and Interior to clearly state their management policies and to more critically examine their management needs concerning the lands studied for wilderness suitability.

Furthermore, the wilderness public hearing process is representative of public participation that aids in guiding many aspects of resource management. Gradually the managing agencies have become more cognizant of the type and scope of information which the public needs to make a judgment, and they are providing this information.

For example, at its very first wilderness public hearing, the National Park Service presented a packet of information that included a description of policy, the narrative of the wilderness proposal, and a map showing the proposal as well as existing and proposed roads. At later hearings this information was expanded to include the general development plan for the park and a summary of the master plan.

*A crowd gathers for the wilderness hearing on Point Reyes National Seashore.*

*National Park Service*



This trend toward greater communication has continued until information packets for present and future National Park Service wilderness public hearings now include the preliminary wilderness suitability study report, a draft of the complete master plan, plus draft environmental impact statements for these documents. The package thus becomes an information kit also for the park master plan meetings, which are held in advance of the wilderness public hearings. With all this material and discussion, the public is able to comment more knowledgeably at the wilderness hearings.

This meeting/hearing process for the National Park Service now resembles more closely the procedures advocated by several conservation organizations at many wilderness hearings; that is, to study the parks, forests, and wildlife refuges as a whole when determining wilderness potential. This requested procedure is one facet of a pattern of responses that has developed at wilderness hearings and which can be expected to continue.

A good cross-section of the public takes part in responding at the public hearings. Both "development" and "preservation" factions are usually present. They include state governors; members of Congress and of state legislatures; officials of local governing bodies and of other federal and state agencies; members of private organizations; and various individuals.

Governors and state agencies often endorse the proposal, perhaps with minor adjustment requests, or suggestions concerning management of forest, park or refuge; conservation organizations have always commended the proposal, but usually state that it does not go far enough and almost invariably advocate additions to the wilderness; chambers of commerce, business interests, and others wanting more development facilities, logging, hunting, etc., have often recommended that the preliminary wilderness proposal be reduced or that there be no wilderness established. Other federal departments and agencies responding at these hearings usually wish their sister agencies well in the wilderness endeavor, but seldom make specific recommendations concerning the proposal.

Once the official record of testimony and letters received as a result of the public hearing are compiled, the agency proposing wilderness must analyze the responses and decide whether the original proposal should be changed. This is where the real impact of the public hearings becomes apparent. Any additions or deletions must be described and the reasons for making the changes clearly stated so as to convey a full understanding of the analysis that took place following the public hearing.

Changes to the proposal must be legally acceptable, consistent with agency policy, and in accord with the management objectives for the area. For instance, reduction in wilderness, or no wilderness, in order to accommodate extensive development or to open a forest to logging may not be responsive to differing user needs, or perhaps to characteristics of the natural resource that require limitations concerning its use. On the other hand, some uses may be acceptable in certain wilderness areas, but not in others. For example, the Forest Service permits grazing in national forest wilderness, but the policy of the National Park Service is to exclude grazing from national park wilderness in "natural areas." When considering such factors, the agency may utilize alternate means that will accommodate responses, visitor needs and management requirements, and

yet remain consistent with the Wilderness Act.

An example of such an accommodation would be "enclaves," relatively small, carefully selected zones which encompass existing or proposed man-made facilities or visitor services as delineated in the master plan; conservation organizations have consistently opposed enclaves in the past, fearing that inappropriate development would occur in them or that the enclave area would be expanded as use pressure increased. Recently, however, there has been a noticeable trend toward acceptance of the enclave concept. This seems to be a result of a growing recognition that development and uses within them will be done responsibly and the wilderness designation by Congress will preclude administrative expansion of the enclave area.

The final wilderness report that is developed after the public hearing discusses all the factors that have been considered concerning the wilderness suitability study. The professional expertise and public discussion that formulated the preliminary proposal, together with the comments and opinions received at the public hearings and reconsiderations that followed the hearing, are examined and reasons are given for the conclusions reached. These conclusions are a crucial point of the wilderness planning process, for they define and justify the recommendation that is presented for consideration by the Congress.

The Congress is certainly aware of the important role of public hearings in the wilderness designation process. At a wilderness hearing before the Senate Subcommittee on Public Lands, Senator Frank Church of Idaho said, "I am always glad to hear that these hearings are functioning as intended by the Wilderness Act and that testimony that is taken at the locality is being given serious consideration. . . We have been informed of several instances when the local testimony has resulted in changes in the original plans, and that, of course, is what we had hoped would happen. The local people are intensely interested and also very familiar with the area, and they can often refine and improve original proposals."

Thus the scrutiny which wilderness proposals undergo at public hearings has the effect of modifying, refining, and improving the plan for congressional consideration. Whether or not wilderness is ever designated by Congress, the planning and decisions necessary to present the wilderness proposal to the public has a beneficial effect in that the total needs of the forest, park or refuge are considered. Hopefully, this consideration will result in a balanced plan offering opportunities for differing land uses, visitor and management needs, and be responsive to limiting factors of the natural resources.

## ROBERT B. KASPAREK

*Robert B. Kasperek is presently on the Washington Office staff of the National Park Service, after holding assignments in several Service areas. He is active in civic affairs and has written articles for NATIONAL PARKS AND CONSERVATION MAGAZINE.*

# Are Americans Receiving Full Benefits from Wilderness?

By James R. Turnbull

In Biblical times, Moses led his people out of the wilderness. In our own day there is a tendency among some of our people to try to return to the wilderness, at least for recreational purposes.

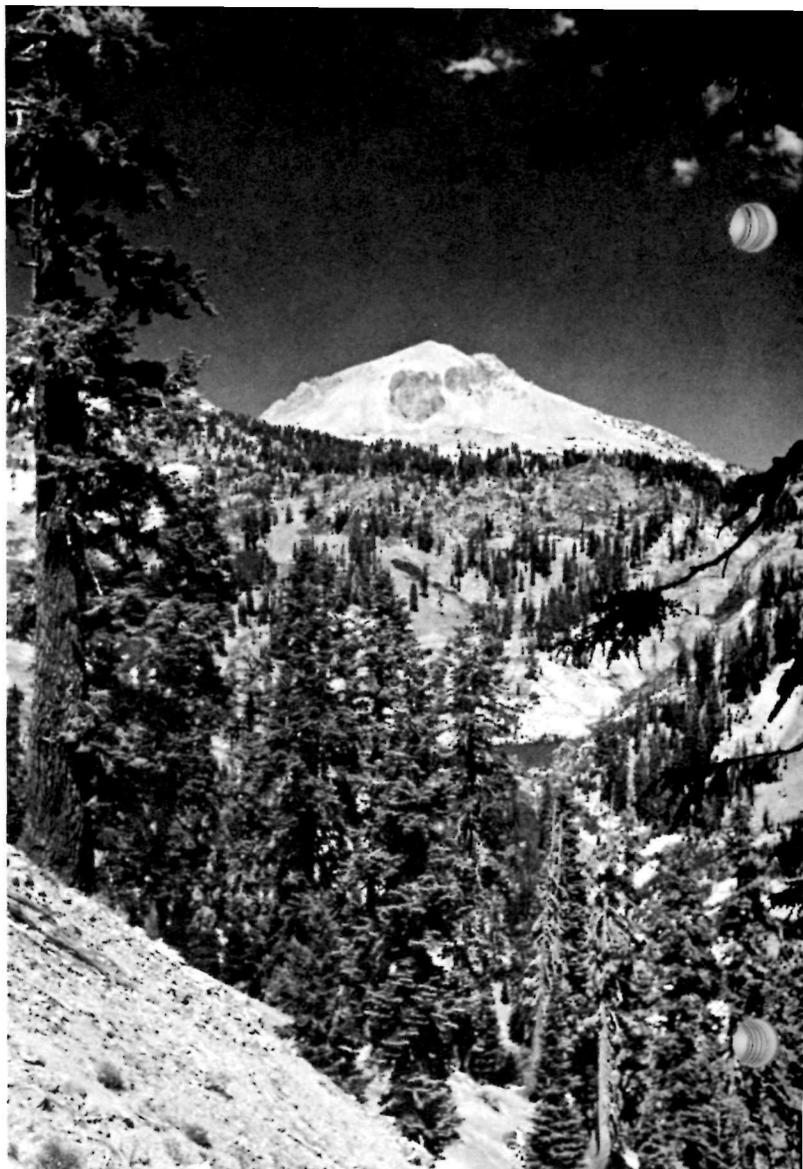
The issue of wilderness preservation is the subject of legislation and of government and private study. Millions of acres of woodland in government ownership classified as wilderness already have been set aside and many more millions of acres are being proposed for this special single use.

The question is whether wilderness preservation is the best investment to serve the recreation and everyday economic needs of *all* Americans and whether the returns being provided are for the greatest good of all the public.

This two-pronged question has loomed large since passage of the Wilderness Act of 1964. This legislation placed immediately some 9.1 million acres of national forest land in a National Wilderness Preservation System.

At the same time, some 22.5 million acres of roadless areas of 5,000 acres or more in the National Park System and 24.1 million acres in National Wildlife and Game Refuges—a total of 46.6 million gross acres—were ordered studied for possible addition to the Wilderness System.

Additionally, 5.5 million acres of primitive areas in the national forests were set aside for study by the Act. Thus, total acreage under study by federal agencies to determine suitability for wilderness preservation



National Park Service

*Recreational development or wilderness preservation—which serves the best interests of the American public?*

totals 52.1 million acres. The Forest Service also is identifying roadless areas of 5,000 acres or more which are essentially undeveloped contiguous to wilderness or primitive areas for review as possible additions to the Wilderness System.

Since the 1964 Act, one million acres of the total area under study have been added to the Wilderness System by Congress. Thus, the National Wilderness Preservation System at present includes about 10.1 million acres and is getting still larger.

Under a timetable established by the Wilderness Act, the U.S. Departments of Agriculture and Interior have until September 1974 to complete their reviews of national parks, monuments, and other units of the National Park System, wildlife refuges and game ranges, and primitive areas of the National Forest Service. The Departments were instructed to complete one-third of their reviews by 1967 and two-thirds by 1971.

As time has gone by, the acreage anticipated by major supporters of the wilderness concept has spread far beyond the original projections.

The 91st Congress has seen the introduction of a number of bills to

include additional areas—most of them in national forests but not classified as primitive areas.

The Sierra Club and other groups are encouraging local citizen groups to work for still more additions to the Wilderness System, particularly in the East.

What the Sierra Club, with the support of other conservation groups, appears to be pushing for is the ultimate withdrawal of approximately 120 million acres for wilderness.

This estimate is drawn from the Sierra Club's wilderness policy which states in part: "... within the 48 contiguous states the two extremes of land utilization—wilderness and total development—should be approximately equal... a guideline might be that at least twice the area now devoted to (total development and other urban uses such as buildings, roads, parking lots, railroads and airports) could be considered to constitute an adequate wilderness reservation."

The Agriculture Department's 1967 study of national soil and water conservation needs indicated 13 percent of the land area, or 61 million acres, is in urban or built-up use.

Twice the 61 million acres of urban or built-up use would put wilderness preservation at 122 million acres.

Locking up an area this size for one possible use—recreation—poses a challenge to this nation's accepted policy of multiple-use of the forests—that is, timber, recreation, watershed development, grazing, fish and wildlife.

This policy was evolved and endorsed by government, the forest products industry, conservationists and the general public long before the wilderness concept was advanced.

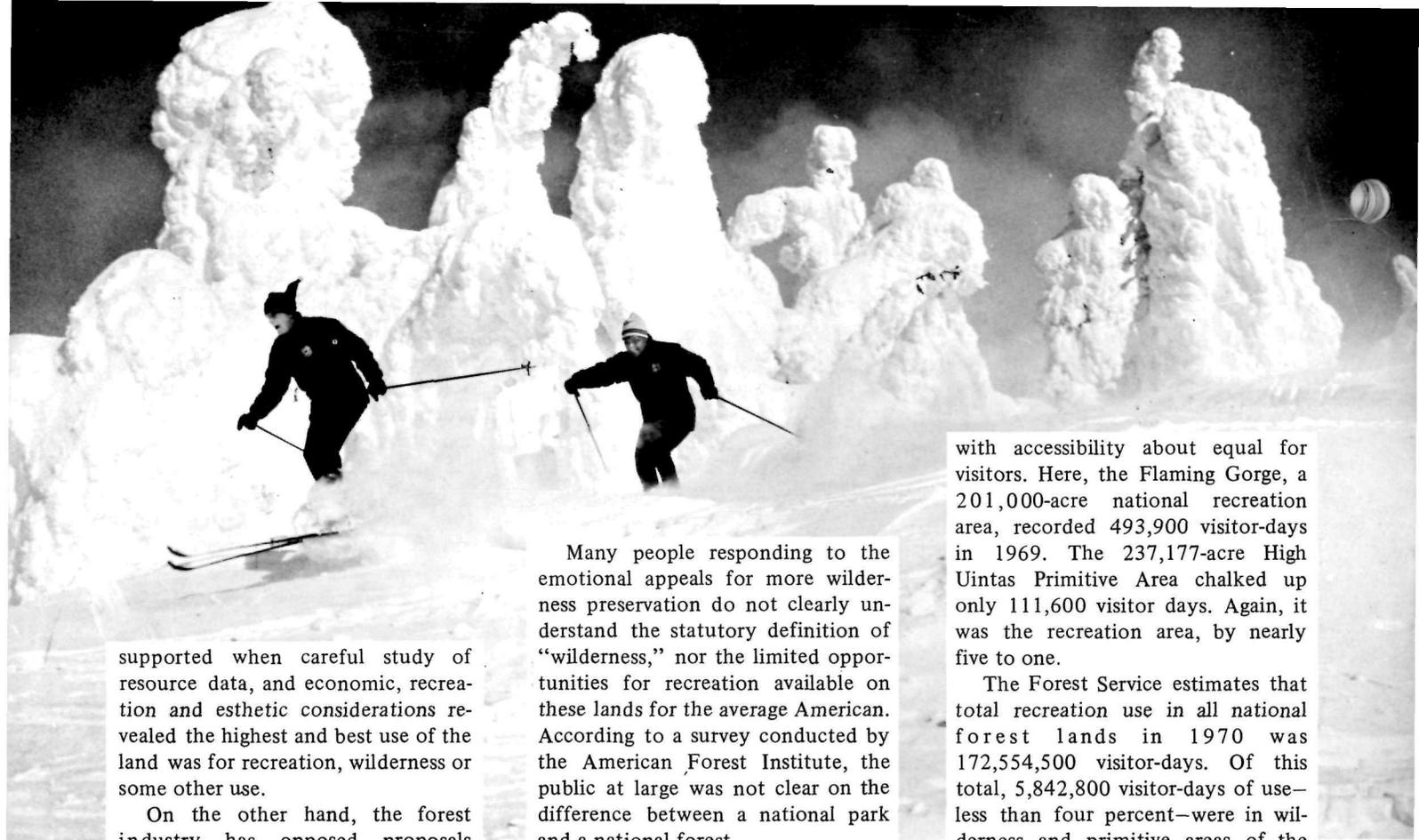
No one disputes the intent of the 1964 Wilderness Act. Setting aside certain tracts for preservation because of their "scientific, educational, scenic or historical value" is not an issue. It is the law. But extending the scope of the set-asides far beyond all expectation is another matter.

The forest products industry took an active part in the development of the Wilderness Act, the National Scenic Trails Act, the Wild and Scenic Rivers Act and legislation for several other national recreation areas. Many specific proposals which eliminated or restricted production of tree crops on commercial forest land have been

*"Wilderness means preserving nature in its original state, with no roads and no eating and sleeping or sanitary accommodations for visitors."*

National Park Service





supported when careful study of resource data, and economic, recreation and esthetic considerations revealed the highest and best use of the land was for recreation, wilderness or some other use.

On the other hand, the forest industry has opposed proposals which would restrict or remove forest land from timber production when a study of the available data showed the highest and best use was for commercial forest crops.

Withdrawing forest lands into excessive and unwarrantedly large wilderness preserves represents abandonment of all the benefits of multiple-use of the forest with the exception, ostensibly, of limited recreation.

The nation's land area is fixed. With the exception of timber, for all practical purposes, so are its resources. Removal of national forest lands classified as commercial timberlands from the inventory base for allowable harvesting determinations reduces by that much the timber supply available from the national forests. These government lands annually supply nearly one-third of the nation's softwood timber resource. Reduction of the timber harvest available from the national forests can wreak havoc in meeting housing needs and have economic and social repercussions at the local, state and national level.

Many people responding to the emotional appeals for more wilderness preservation do not clearly understand the statutory definition of "wilderness," nor the limited opportunities for recreation available on these lands for the average American. According to a survey conducted by the American Forest Institute, the public at large was not clear on the difference between a national park and a national forest.

The concept of the wilderness as a recreational area certainly is open to question. The truth is that such areas are not accessible for the bulk of the American people, particularly for family groups.

Wherever people have a choice between visiting wilderness or primitive areas and forest recreation areas, they almost invariably, according to surveys, choose the latter.

An example is in northern California where there exists a choice between Whiskeytown-Shasta-Trinity, a national recreation area of 236,000 acres, and Salmon Trinity Alps, a primitive area of 149,764 acres which is being studied for possible addition to the National Wilderness Preservation System. In 1969, some 1,800,200 visitor-days were spent in the Shasta Trinity recreation area, while the nearby primitive area had only 102,600 visitor-days. The recreation area was the people's choice by more than 17 to 1.

Similarly in the northeastern Utah border country a choice exists between recreation and wilderness areas

with accessibility about equal for visitors. Here, the Flaming Gorge, a 201,000-acre national recreation area, recorded 493,900 visitor-days in 1969. The 237,177-acre High Uintas Primitive Area chalked up only 111,600 visitor days. Again, it was the recreation area, by nearly five to one.

The Forest Service estimates that total recreation use in all national forest lands in 1970 was 172,554,500 visitor-days. Of this total, 5,842,800 visitor-days of use—less than four percent—were in wilderness and primitive areas of the national forests. (A visitor day is 12 person-hours, but may entail one person for 12 hours, 12 persons for one hour or equivalent combinations.)

The reason so few Americans enjoy the scenic and recreational pleasures of the wilderness preserves is readily apparent. The wilderness, as defined, means preserving nature in its original state, with no roads and no eating and sleeping or sanitation accommodations for visitors.

Consequently, a wilderness experience is within reach only of those with the stamina and means to hike or pack into the restricted scenic and forest vastnesses—and, of course, to those with the time and the money to travel to the stepping-off place for a wilderness.

A Forest Service survey found that the typical wilderness visitor is a college graduate with possibly an advanced degree, is in the upper-income brackets, and camps out for a week or more pursuing a hobby that often is related to his professional work.

Experience shows that locking up

*A major use of Flathead National Forest is winter sports. Here two skiers start a run from the top of the Big Mountain famous for "snowghosts," the snow-covered trees in the background.*

*U.S. Forest Service*

forest land as a wilderness preserve effectively bars 99 percent of the American population. Families who in their entire lifetime never see a wilderness could benefit more from expenditure of government funds on development of outdoor recreation areas in cities and their environs rather than on wilderness areas.

In contrast to inaccessible and undeveloped wilderness areas, private forest lands owned by forest products companies are open to the public for recreational and educational purposes without charge. Visits are suspended in areas of active timber harvesting operations or during dry periods when fire is a potential hazard.

The National Forest Products Association, representing 22 product and regional trade associations, believes that full weight should be given to the basic policy under which the National Forest System is managed for protection of watersheds and production of timber and other for-

est values under the multiple-use concept.

The multiple-use concept, it holds, should guide the management of government lands not classified for limited use by legislative action.

Withdrawals or other restrictions involving 5,000 acres or more of federal land should be effective only upon action of Congress after approval by duly established congressional committees.

The industry recognizes wilderness-type recreation as a land use in federal forests. The statutory establishment of wilderness-type areas is a major policy determination and should be made only after careful consideration of the relative social and economic values of wilderness use in each area.

Placing large areas of forest land in wilderness preserves where there is no management of the forest deprives the consuming public of needed wood supply—reaped from an ever-renewable resource. It is a seri-

ous threat to the nation's ability to meet present and future needs for wood fiber for housing and thousands of consumer products made of wood.

Despite the current concern for the environment, with stress on open spaces and forest land, the fact remains that a man's home and the place where he works are the principal components of his environment. To keep such buildings in a healthy state, wood is an absolute necessity. The nation improves its environment through improving its housing.

Man can and does help nature in growing superior trees and better forests through management which considers all environmental aspects of the forest ecosystem. Nonmanagement of the forest, which is the basic concept of wilderness preservation, and lack of access hinders control of wildfires, pest and disease infestation, water control and wildlife and fish development.

In unroaded wilderness areas wild-

*Three out of four new churches use wood as a basic material because of its economy, freedom for contemporary design and esthetic qualities.*

National Forest Products Assn.



fires can burn thousands of acres of trees unchecked because there is no access. Infestations destroying thousands of trees also remain unchecked because timber management is not permitted. Who are the beneficiaries of this waste? Certainly not the American people or the small portion of them seeking a wilderness experience.

Employment in the lumber and wood products, furniture and fixtures, and pulp and paper segments of the forest products industry exceeds 1.6 million people, with an annual payroll of over \$11 billion. Put another way, the forest products industry provides jobs for 8.3 percent of all people employed by *all* manufacturing industries.

The dependence of the forest products industry upon government forest lands can be seen in the fact that 65 percent of the softwood sawtimber inventory is on government lands: in national forests with 53 percent; other federal lands with

six percent; and other public lands with another six percent. Forest industry owned lands contain 16 percent of the standing softwood sawtimber inventory, and other private nonindustrial lands contain 19 percent.

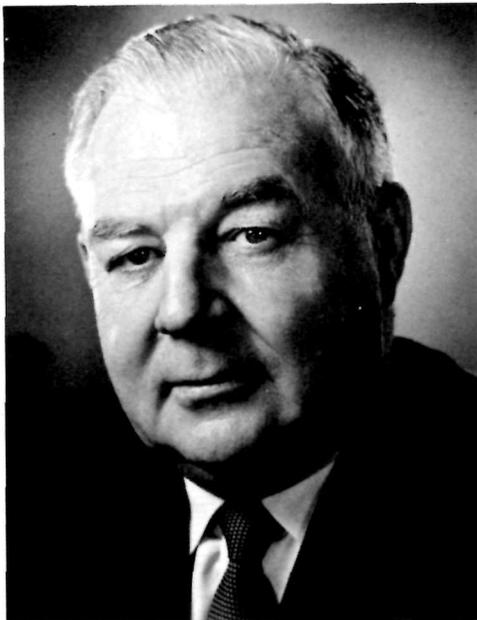
Despite the large acreage in government ownership, these lands yield only 40 percent of the timber harvest, the national forests leading the way with 30 percent while other federal and other public forest lands yield only five percent each. Forest industry owned lands, with only 16 percent of the total softwood inventory, yield 33 percent of the harvest. Other private lands yield 27 percent.

Obviously, forest industry lands are managed much more intensively than government lands. If timber growth and yield rates are to be increased to meet the nation's housing needs, the timber growing potential of government-owned commercial forest lands and other private lands must be developed through

intensive silvicultural programs and not removed for wilderness preservation.

Conservation is consistent with continued production of timber—in fact, it is necessary for maintaining an even flow of sawtimber supply. The industry early realized this and through the years has invested heavily in research and development to find new ways to grow superior, larger and healthier crops of this renewable resource.

The concept of multiple use of the forests combines the needs of timber harvesting and recreation. Some areas should be preserved in wilderness, even though comparatively few people can visit them and enjoy them. But the drive to put more and more national forest and other public lands into single-use wilderness preserves deprives the whole nation, rather than a few timber companies, of the maximum benefit of the forest lands. This is *waste*, not conservation.



## JAMES R. TURNBULL

*James R. Turnbull is executive vice president of the National Forest Products Association which has its headquarters in Washington, D.C. A lifetime conservationist and outdoorsman, he has also been executive vice president of the American Plywood Association in Tacoma, Washington, and the Western Wood Products Association in Portland, Oregon.*

# Myths

Reprinted by permission from the September-October 1971 issue of the *JOURNAL OF SOIL AND WATER CONSERVATION*.

## *In Wilderness Decision Making*

By George H. Stankey

Are wilderness users a wealthy elite whose income affords them opportunities to use wilderness areas that less wealthy people are denied? Are we heading toward a situation where a preponderant share of our public lands will be "locked up" in wilderness?

These questions occur repeatedly in public hearings on wilderness proposals and reflect a disturbing situation. Such hearings should serve as forums, where the optimum "mix" of wilderness and other forms of resource management is decided. Decisions about how such allocations will be made ideally should reflect an effort to optimize net benefits to society.

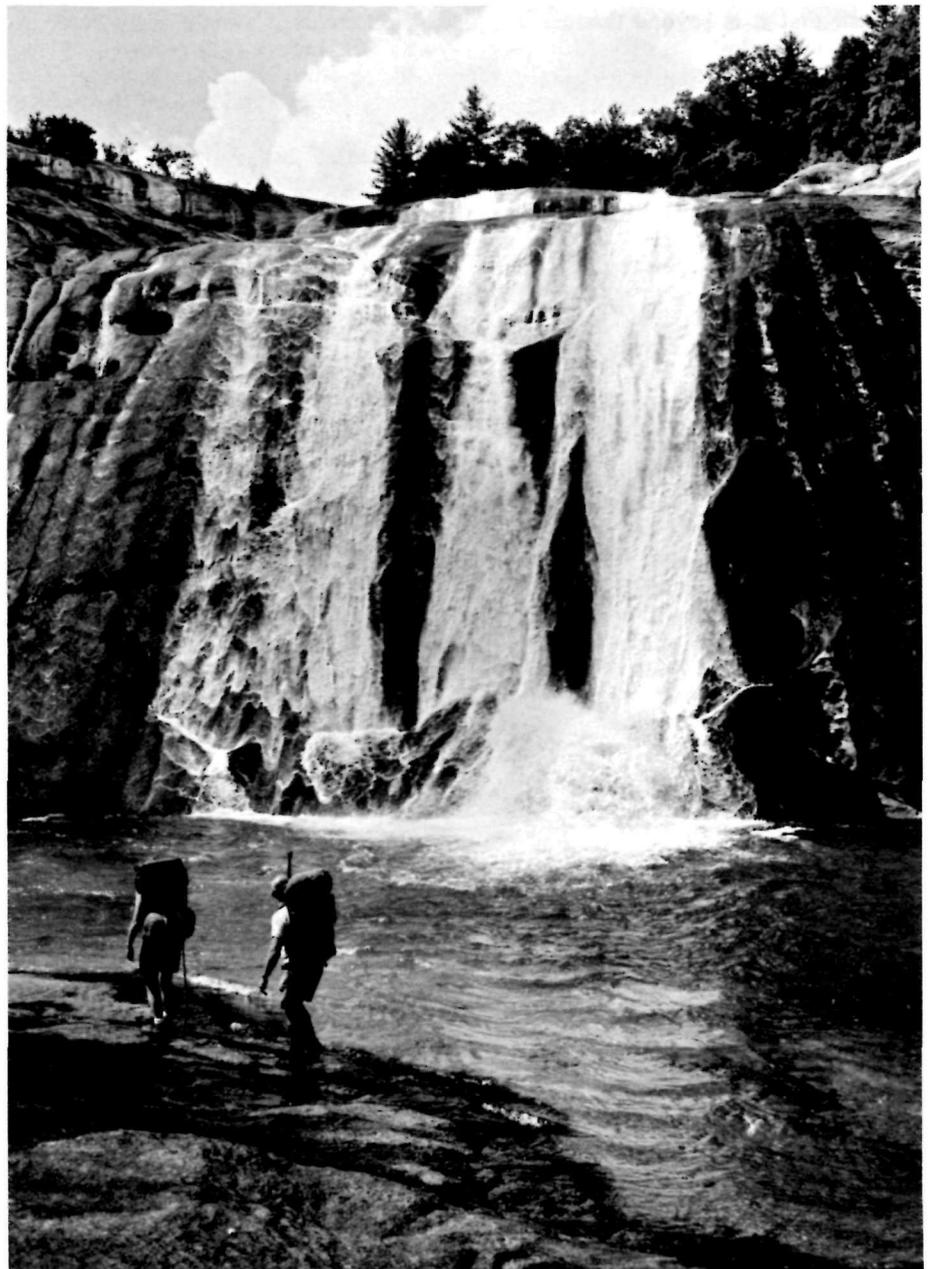
In making these decisions, however, it is mandatory to identify those contentions that, although incorrect, have achieved a level of uncontested acceptance among many people. These myths\* greatly reduce the efficacy of the public hearing process. Consequently, they tend to promote decisions that may not contribute to the optimum public benefit.

Such decisions necessarily must consider both facts (data susceptible to corroboration) and values (how a person or group feels). It is difficult to assess the "wrongness" or "rightness" of values. For example, some argue that wilderness is necessary for the spiritual values it imparts to society. Perhaps, but it is impossible to either substantiate or contradict

\*Myth may seem like a harsh and unreasonable term, but its definition is appropriate to the discussion here: "An ill-founded belief held uncritically, especially by an interested group" (*Webster's Seventh New Collegiate Dictionary*).

*Pisgah National Forest, North Carolina*

U.S. Forest Service



such a statement with our present level of knowledge. Many other statements, however, treat topics on which information from scientific research or established policy is available to corroborate, contradict, or modify the contention.

In view of the availability of such information, the persistence of such statements as "only the wealthy can visit wilderness" suggests a disturbingly low level of knowledge on the part of many people who seek to influence the wilderness decision-making process.

### Income, Costs, and Wilderness Uses

How do the income characteristics of wilderness visitors compare with those of the nation as a whole? Are the costs of wilderness recreation such that it is beyond the means of most people?

The Wildland Research Center (1) reported to the Outdoor Recreation Resources Review Commission in 1962 that persons with family incomes exceeding \$10,000 comprised 33 percent of the visitors in three wilderness study areas, while this income group represented only 13 percent of the population of the U.S. Similarly, in 1958, Lucas (2) found that 30 percent of the paddling canoeists and 28 percent of the motor canoeists in Minnesota's Boundary Waters Canoe Area had incomes over \$10,000.

A 1967 study in Oregon revealed that persons with incomes exceeding \$9,000 comprised nearly 40 percent of the wilderness visitor total, while only 19 percent of the Oregon population had a similar income (3). In 1967, 20 percent of the visitors to the Bob Marshall Wilderness and 15 percent of those visiting the Mission Mountains Primitive Area had incomes over \$15,000, while only about 5 percent of the U.S. population was in this income category (4).

Clearly, higher income categories appear to be disproportionately represented among wilderness visitors. The reason for this, some suggest, is that persons in lower income categories cannot afford to visit wilderness areas. If this contention indeed is valid, the daily costs incurred by wilderness visitors ought to be substantially greater than those paid by other recreationists. Available information suggests that such costs are quite low, however.\*\*

The 1962 Wildland Research Center report (1) indicated that 57 percent of the visitors contacted spent \$5 or less per person per day. More-

over, about half the wilderness recreationists in the income brackets of \$5,000 to \$9,999 and \$10,000 to \$14,999 reported a cost per person per day of \$3 or less. There was no significant difference in the amounts spent by visitors in these two income groups.

Daily costs of other forms of recreation vary widely. The National Recreation Survey indicated that daily expenditures for vacations, trips, and outings averaged \$5 per person in 1960-61 (5). Estimated daily costs for campers in Oregon averaged \$2.75 (6). A study of water-based recreation in Nevada revealed an average daily expenditure of \$17 for a party of four persons (7). Herrington found that the average daily expenditure per skier was \$20 (8). Campers in a Louisiana state park incurred average daily costs of \$3 (9). LaPage (10) reported \$11 as the average daily expenditure per party for campers in New Hampshire state parks (party size was not reported). Finally, a study of outdoor recreation in Wyoming indicated that daily expenditures per vacationing party averaged nearly \$35, or about \$11 per person (11).

These studies suggest that costs associated with wilderness recreation appear to be comparable or lower than those associated with other outdoor recreation activities.

---

*The richest values of wilderness lie not in the days of Daniel Boone, nor even in the present, but rather in the future. --Aldo Leopold*

---

One additional contention merits consideration here. Will lower income groups find greater opportunities for outdoor recreation if areas previously in a de facto wilderness state are developed with road access and campgrounds? Many contend they will. However, evidence from at least three studies suggests that lower

---

\*\*Daily costs cited are for summer visitors only; fall users, primarily hunters, are not included. Virtually no information is available on fall wilderness visitors, and it is likely they differ from summer visitors in many respects. Neither do the costs reflect those incurred by persons traveling with a large organization, such as the Sierra Club or American Forestry Association. These groups represent only a small percentage of total wilderness use, however.

income groups also are under-represented in roadside campgrounds relative to their proportion of the U.S. population. In fact, this evidence indicates that they comprise a smaller percentage of the roadside campground population than of the wilderness camping population.

Merriam and Ammons (4) reported that about 20 percent of the wilderness visitors they contacted had incomes under \$5,000. Only 5 percent of the roadside campground users fell into this income category. In 1964, the year of their study, the under-\$5,000 income group represented close to 40 percent of the U.S. population.

An earlier study by Lucas (2) produced similar findings: Persons with incomes under \$4,000 comprised 24 percent of his wilderness sample but only 10 percent of the roadside campground population. For the country as a whole, persons with incomes under \$4,000 accounted for 37 percent of the population in 1958.

Finally, Burch and Wenger (3) found essentially no difference in income characteristics among easy-access (vehicle) campers and remote (wilderness) campers in Oregon. This held true for the income categories of under \$3,000 and \$3,001 to \$5,999.

Thus the costs incurred by any

group of recreationists appear to be influenced more by the particular desires and preferences of the individuals than by their incomes. The Wildland Research Center (1) concluded, "... wilderness use is not so much dependent on high income as it is related to taste preferences in recreation." Lucas (2) reached a similar conclusion: "Income seems to be more necessary than sufficient as an explanation of recreation choices. Money does not form tastes, it limits their expression, but few people would be priced out of the market here (Boundary Waters Canoe Area) for any type of recreation, with the possible exception of ... resorts and private cabins." The causal relationship between wealth and wilderness visitation is valid only insofar as increased income is associated with

changes in outdoor recreation preferences.

Preference formation and changes are not clearly understood. However, it has been documented that wilderness use is a function of education. College-educated persons are greatly

over-represented among wilderness users. Of course, education is closely related to income. In fact, education probably is a more important consideration than income in determining the underlying causal factor or factors that form or change recreation preferences.

#### Leisure Time and Length of Stay

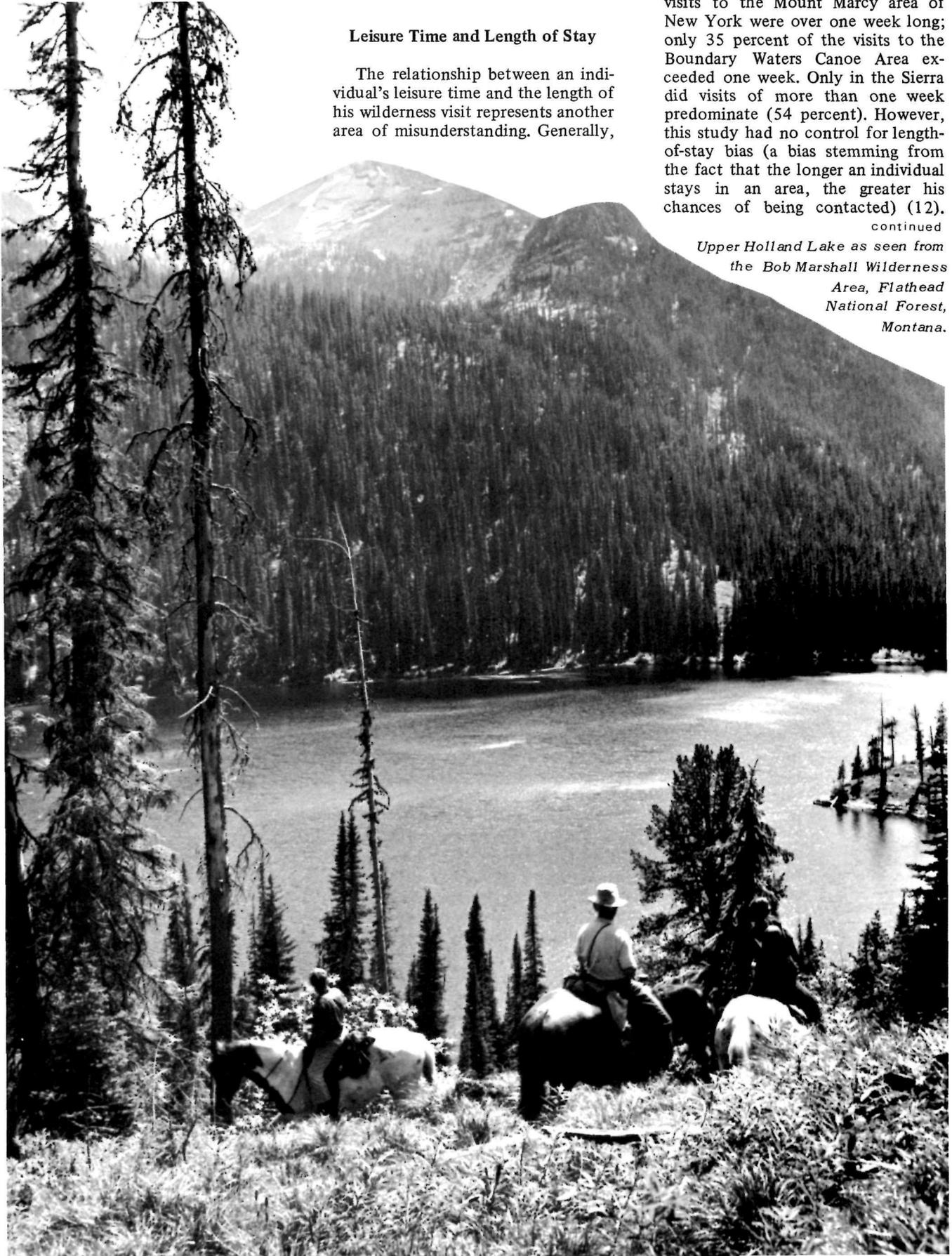
The relationship between an individual's leisure time and the length of his wilderness visit represents another area of misunderstanding. Generally,

people think of the typical wilderness trip as a lengthy affair and the wilderness user as one who has an above-average amount of leisure time. Evidence tends to refute both beliefs.

The Wildland Research Center (1) indicated that only 10 percent of the visits to the Mount Marcy area of New York were over one week long; only 35 percent of the visits to the Boundary Waters Canoe Area exceeded one week. Only in the Sierra did visits of more than one week predominate (54 percent). However, this study had no control for length-of-stay bias (a bias stemming from the fact that the longer an individual stays in an area, the greater his chances of being contacted) (12).

continued

*Upper Holland Lake as seen from the Bob Marshall Wilderness Area, Flathead National Forest, Montana.*



Consequently, the average lengths of stay are exaggerated.

Merriam and Ammons (4) found that wilderness trips ranged from 2 to 8 days and averaged less than 5 days in the Bob Marshall Wilderness, Mission Mountains, and Glacier Park backcountry. Again, no control for the length-of-stay bias was applied. The researchers noted that length of stay was more a function of an area's size and the type of activity provided by the specific location than of a visitor's available leisure time.

Lucas' findings in the Boundary Waters Canoe Area support this conclusion (2). Although Forest Service officials estimated the average length of stay to be 5 days, Lucas, correcting for length-of-stay bias, found it to be about 1.75 days. Hendee and associates (13) found that wilderness users in the Pacific Northwest averaged about six trips in 1965, with the average trip lasting about two days. Visits to the Mission Mountains Primitive Area average only about 14 hours.\*\*\*

Burch and Wenger (3) presented additional evidence contradicting the notion that wilderness trips require inordinate amounts of leisure time. They found that persons with less than one week's vacation were over-represented among remote (wilderness) campers, while those with three weeks' vacation were under-represented when compared with the general population groups these recreationists represented. The authors concluded, "... it seems that a shorter vacation time is not noticeably inhibitory for those who desire a wilderness trip, and remote campers are less, not more, likely to be persons with more vacation time."

The distribution of leisure time throughout our society is decidedly uneven, "Most of the real gain in leisure in the United States has come to private nonagricultural industries ... most markedly in manufacturing and mining. . . Professionals, executives, officials, and other civil servants ... have benefited little ..." (14). Yet it is these latter occupational categories that most wilderness visitors represent.

Any attempt to explain wilderness use solely in terms of a single socioeconomic characteristic, such as income or leisure time, can only result in erroneous conclusions. The propensity to visit wilderness seems to

\*\*\*From preliminary results of a study being conducted by the Intermountain Forest and Range Experiment Station.

be a function of the complex—and admittedly little understood—preferences of the individual. While income and leisure time are components of preference formation, neither appear to be inhibitory to those individuals already visiting wilderness areas. What is needed is a clearer understanding of how preferences are influenced by life style and other socio-psychological parameters, for example, stage of life cycle, membership in conservation organizations, etc. (15).

\* \* \* \* \*

### The Range of Choice

Opinions vary widely about the size of the wilderness system, particularly in terms of its rate of growth and its relationship to the nation's total land resource base. Figure 1 shows the growth between 1930 and 1969 of the total area classified as wilderness, wild, primitive, or canoe. As can be seen, the 1930's represented a period of rapid growth and expansion. Between 1940 and 1969, however, acreage increased only about 5 percent.

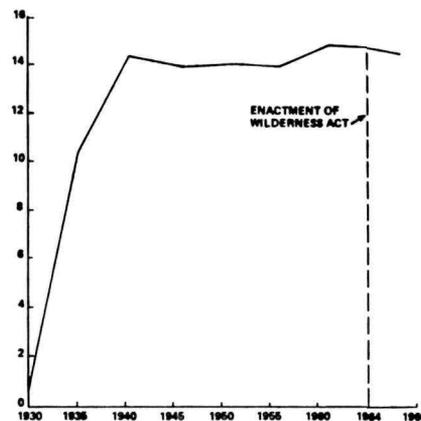


Figure 1. Accumulated wilderness acreage in the 48 conterminous states, 1930-1968.

As of December 31, 1969, there were 9,929,102 acres in the National Wilderness Preservation System (16). This represents one-half of one percent of the conterminous U.S.

Projecting the future size of the wilderness system is a highly speculative venture. The magnitude of error could be considerable. On the other hand, it is possible to define the approximate range within which a choice about wilderness can be made. The following tabulation represents an effort to delimit the maximum acreage potentially available for study as possible wilderness, exclusive of Alaska.

Agency	Acreage (millions)
Forest Service	21.3
National Park Service	19.8
Bureau of Sport Fisheries and Wildlife	4.2
Bureau of Land Management	2.2
Total	47.5

The 21.3-million-acre figure for the Forest Service includes 9.9 million acres currently in the National Wilderness Preservation System, 4.4 million acres now classified as primitive, and 7 million acres in de facto wilderness. The latter figure is difficult to estimate. As part of its nationwide inventory of wilderness in 1960, the Wildland Research Center (1) reported that about 7 million acres of unreserved national forest land existed in the 48 states. Some of this de facto wilderness since has been developed; hence, it no longer would qualify as wilderness. However, assuming there were some under-reporting errors in the 1960 estimate, we may use the 7-million-acre figure as a maximum estimate of the present de facto acreage.

The National Park Service has designated 54 units of the national park system as qualifying for study under the Wilderness Act. Aggregate acreage of these areas is 19.8 million (16).

The Bureau of Sport Fisheries and Wildlife is reviewing 76 areas (exclusive of Alaska). Total acreage of these units is 4.2 million (17).

Although the Wilderness Act does not require the Bureau of Land Management to evaluate and classify areas for wilderness, the agency may designate suitable areas for wilderness preservation under the Classification and Multiple-Use Act of 1964. At present, 2.2 million acres in the conterminous U.S. have been identified as potential wilderness areas under this act (16).

Thus about 2.5 percent of the nation, exclusive of Alaska, appears to possess the resource characteristics to qualify for study as wilderness.

\* \* \* \* \*

### Speculations on Size

With these latter thoughts in mind, I speculated on what the dimensions of the National Wilderness

Preservation System might be (Table 1). The operational assumptions, where possible, are based on projections of agencies' past records of wilderness classification.

From a national perspective, the potential acreage available for possible inclusion in the National Wilderness Preservation System is just less than 72 million acres, about 3 percent of the country. The total acreage would be divided almost equally between the conterminous U.S. (and Hawaii), with 35.8 million acres, and Alaska, with 35.7 million acres. These areas represent 1.9 percent of the 48 states and Hawaii and 9.5 percent of Alaska.

Under terms of the Wilderness Act, the National Wilderness Preservation System will be substantially complete by 1974.\*\*\*\* Thus we may expect relatively rapid growth in the size of the system during the next few years. Within the next decade it will reach its maximum extent or close to it, and it will be on this acreage that the "benefits of an enduring resource of wilderness" (18) must be provided.

#### A Final Comment

While areas suitable for wilderness classification in America are limited, demands for wilderness benefits are almost certain to grow. Good decisions about how much or how little wilderness should be retained will require careful, objective analysis of wilderness and its esthetic, scientific, and recreational values as well as its values for alternative uses. Factual knowledge about wilderness is scarce, and this scarcity emphasizes the need to make use of what knowledge is available.

\*\*\*\*De facto wilderness in the national forests is the major exception; additions from these areas would largely be made (if they are made) after 1974.

**Table 1. Potential dimensions of the National Wilderness Preservation System**

<i>Agency</i>	<i>Acreage Under Study as Wilderness (millions)</i>	<i>Assumptions Regarding Eventual Wilderness Classification (%)</i>	<i>Acreage Assumed to be Classified as Wilderness (millions)</i>
<b>Forest Service<sup>a</sup></b>			
Wilderness (currently in NWPS) . . . . .	9.9	100	9.9
Primitive (awaiting review) <sup>b</sup> . . . . .	4.4	100	4.4
De facto (48 states) . . . .	7.0	67	4.7
De facto (Alaska) . . . . .	2.5	75	1.9
<b>Total . . . . .</b>	<b>23.8</b>		<b>20.9</b>
<b>National Park Service<sup>c</sup></b>			
54 units in 48 states and Hawaii . . . . .	19.8	67	13.3
3 units in Alaska . . . . .	7.5	90	6.8
<b>Total . . . . .</b>	<b>27.3</b>		<b>20.1</b>
<b>Bureau of Sport Fisheries and Wildlife<sup>d</sup></b>			
Acreage to be reviewed, exclusive of Alaska . . . .	3.1	50	1.6
Acreage to be reviewed in Alaska . . . . .	22.6	90	20.3
Acreage already reviewed, exclusive of Alaska . . . .	1.1	50	0.5
Acreage already reviewed in Alaska . . . . .	0.1	100	0.1
<b>Total . . . . .</b>	<b>26.9</b>		<b>22.5</b>
<b>Bureau of Land Management<sup>e</sup></b>			
Study areas in 48 states . .	2.2	67	1.4
Study areas in Alaska . . .	8.8	75	6.6
<b>Total . . . . .</b>	<b>11.0</b>		<b>8.0</b>
<b>Grand Total . . . . .</b>	<b>88.5</b>		<b>71.5</b>

<sup>a</sup> Assumptions regarding the percentage of Forest Service de facto acreage to be classified as wilderness are arbitrary ones that attempt to take into account the demands for a growing wilderness-user population, other resource demands, and the availability of lands to meet this demand.

<sup>b</sup> Additions to primitive areas in the reclassification process have averaged about 25 percent. However, these additions are taken from land classed above as de facto wilderness.

<sup>c</sup> The two-thirds assumption for national park units outside Alaska is probably an overestimate. Of the 17 units studied to date, preliminary wilderness proposals have averaged 54 percent. The 90-percent assumption for Alaska was made in light of the present low level of development and light use pressures.

<sup>d</sup> The Bureau of Sport Fisheries and Wildlife has reviewed 30 areas in the U.S. exclusive of Alaska. At present, wilderness recommendations average 45 percent of gross acreage. In Alaska 76,000 acres have been reviewed; virtually all (99.9 percent) have been recommended for wilderness. It has been assumed that prior developments and wildlife management needs would allow for a 90-percent withdrawal of the remaining acreages.

<sup>e</sup> There is virtually nothing available from which assumptions regarding Bureau of Land Management withdrawals for wilderness proposals could be made. The two-thirds figure for the 48 states and 75 percent for Alaska attempt to recognize, as do the assumptions on de facto Forest Service acreage, the competing resource demands and the alternative sources of supply for these resources.

continued

## REFERENCES CITED

1. Wildland Research Center, University of California. 1962. *Wilderness and recreation—a report of resources, values, and problems*. ORRRC Study Rept. 3. Berkeley. 352 pp.
2. Lucas, Robert C. 1964. *Recreational use of the Quetico-Superior area*. Res. Pap. LS-8. North Central Forest Exp. Sta., St. Paul, Minn. 50 pp.
3. Burch, William R., Jr., and Wiley D. Wenger, Jr. 1967. *The social characteristics of participants in three styles of family camping*. Res. Pap. PNW-48. Pac. Northwest Forest and Range Exp. Sta., Portland, Oreg. 29 pp.
4. Merriam, L. C. Jr., and R. B. Ammons. 1967. *The wilderness user in three Montana areas*. School of Forestry, Univ. Minn., St. Paul. 54 pp.
5. Outdoor Recreation Resources Review Commission. 1962. *National recreation survey*. Study Rept. 19. U.S. Govt. Printing Office, Washington, D.C.
6. Oregon State Highway Commission. *The state park visitor in Oregon*. Salem. 13 pp.
7. Myles, George A. 1968. *Water based recreation in Nevada: Statistical appendix*. Max C. Fleischmann Col. of Agr., Univ. Nev., Reno. 78 pp.
8. Herrington, Roscoe B. 1967. *Skiing trends and opportunities in the western states*. Res. Pap. INT-34. Intermountain Forest and Range Exp. Sta., Ogden, Utah. 90 pp.
9. Waters, James R., and Robert W. McDermid. 1968. *Outdoor recreation at Fontainebleau State Park, Louisiana*. Note 75. School of Forestry and Wildlife Manage., La. State Univ., Baton Rouge. 3 pp.
10. LaPage, Wilbur F. 1969. *Campground marketing: The heavy-half strategy*. Res. Note NE-93. Northeastern Forest Exp. Sta., Upper Darby, Pa. 6 pp.
11. Phillips, Clynn, and Dwight M. Blood. 1969. *Outdoor recreation in Wyoming, vol. II*. Col. of Commerce and Ind., Univ. Wyo., Laramie. 128 pp.
12. Lucas, Robert C. 1963. *Bias in estimating recreationists' length of stay from sample interviews*. J. Forestry 61:912-914.
13. Hendee, John C., William R. Catton, Jr., Larry D. Marlow, and C. Frank Brockman. 1968. *Wilderness users in the Pacific Northwest—their characteristics, values and management preferences*. Res. Pap. PNW-61. Pac. Northwest Forest and Range Exp. Sta., Portland, Oreg. 92 pp.
14. Wilensky, Harold. 1961. *The uneven distribution of leisure: The impact of economic growth on "free time."* Social Problems 9:32-56.
15. Burch, William R., Jr. 1969. *The social circles of leisure: Competing explanations*. J. Leisure Res. 1:125-147.
16. U.S. Congress. 1970. *The sixth annual report on the status of the National Wilderness Preservation System*. House Doc. 91-372, Part 1. 91st Cong., 2nd Session, Washington, D.C. 22 pp.
17. U.S. Fish and Wildlife Service. 1970. *Second annual status report on wilderness reviews within National Wildlife Refuge System*. Fed. Register Doc. 70-4860. Washington D.C. 2 pp.
18. U.S. Congress. 1964. *The Wilderness Act (P.L. 88-577)*. 88th Cong., Washington D.C. 7 pp.

## GEORGE H. STANKEY



*George H. Stankey is on the staff of the U.S. Forest Service's Wilderness Management Research Project maintained in cooperation with the University of Montana at Missoula. He received his B.S. and M.S. degrees in geography at Oregon State University in 1965 and 1966, respectively, and his Ph.D. in geography from Michigan State University in 1971. His research has focused on the social and behavioral aspects of wilderness recreation.*

# Preservation of Desert Wilderness



Death Valley National Monument, California.

NPS

By Walter P. Taylor

To some it will probably seem a tautology to refer to desert wilderness, for are not the desert and wilderness synonymous? If anybody wants it, why not turn over the desert to him and be done with it, saving our conservation efforts for the mountains, forests, rivers, seashores, and lakes?

I am not sure I can answer this question satisfactorily. I will have to appeal to those of you who have lived or traveled on the desert. Perhaps those gray and barren ranges of desert mountains have a fascination for you as they do for me:

Something hidden Go and find it.  
Go and look behind the Ranges—  
Something lost behind the Ranges.  
Lost and waiting for you. Go!

We have to concede that a great number of extremely interesting phenomena are associated with these desert mountains and the broad valleys between them. With their erosion, alluvial fans, bajadas, and deeply cut canyons, they tell us of past geological events. Their lost mines and signs of former occupation hint at an interesting history. The keen hunter and the naturalist are sure to be enticed by the variety of desert wildlife. The speculator, the miner, the lumberman, the grazer, the recreationist—all are attracted by the possibility of financial gain.

But then, look a little farther. Closely or remotely associated with the desert mountains are a number of other fascinating features. Rock faults, some of outstanding scientific and historical interest, like the San Andreas that extends at least from the San Francisco Bay region to the Colorado Desert; eroded and grotesquely carved mesas; a wealth of ranges, natural bridges, lava flows, volcanoes, playas, dry lakes, and meteor craters; impressive cliffs; rocks of immense variety—these are the chief ingredients that exemplify the stress and strain of mountain-making and other geological phenomena.

What can we say about desert colors? For the most part they are gray and prosaic when first seen in the full glare of midday, but we are hardly prepared for the brilliance of

*This speech was presented at the Tenth Biennial Sierra Club Wilderness Conference, held in San Francisco, April 1967.*

desert sunrises and sunsets, mountains, cliffs, volcanic necks, and rocks. There are black canyons and grand canyons, not to mention the fleeting vivid colors sometimes seen in the rainbows and highly colored skies associated with desert storms.

It is easy to conclude that in a parched and dried-out land, water should be the *summum bonum*. The story of how plants, animals, and man secure their water supplies within these vast arid regions is of unending interest. Some desert rodents form water chemically within their bodies, eating only dry food. Others know where to dig for succulent roots. The coyote scoops out the sand in some favorable desert wash to reach water. Some desert plants give up water altogether in the dry season and become dormant. Others send their roots down one hundred feet to water. Some plants live on dew.

New discoveries about water and desert relationships are changing previous concepts. On a trip to Palestine, it was reported to us that David Ben Gurion, then Premier of Israel, was starting a fruit orchard at Sede Boqer in the Negev Desert south of Beersheba. And more recently, Robert P. Ambroggi of the Food and Agriculture Organization of the United Nations in Rome has reported in *Scientific American* (May, 1966) the news of extensive unsuspected water sources contained in the Sahara Desert.

No desert naturalist should ever be asked to discuss desert flowers and animal life in twenty-five minutes. We are all highly appreciative of the floral explosions on the desert following the rare showers: cacti, sahuaros, ocotillos, primroses, desert dandelions, verbenas, and others. Though less obvious, the desert animals are equally attractive and interesting. These range from microscopic forms to the insects, amphibia, reptiles, and birds. Mammals are found that range from the tiny pocket mouse to the pronghorn antelope, and to man himself.

Man's usual attitude is that the desert is completely worthless unless it can be used for making money. I strongly dissent from the view that only through commercial development can the desert make its highest contribution.

Like a human being, the desert possesses untapped

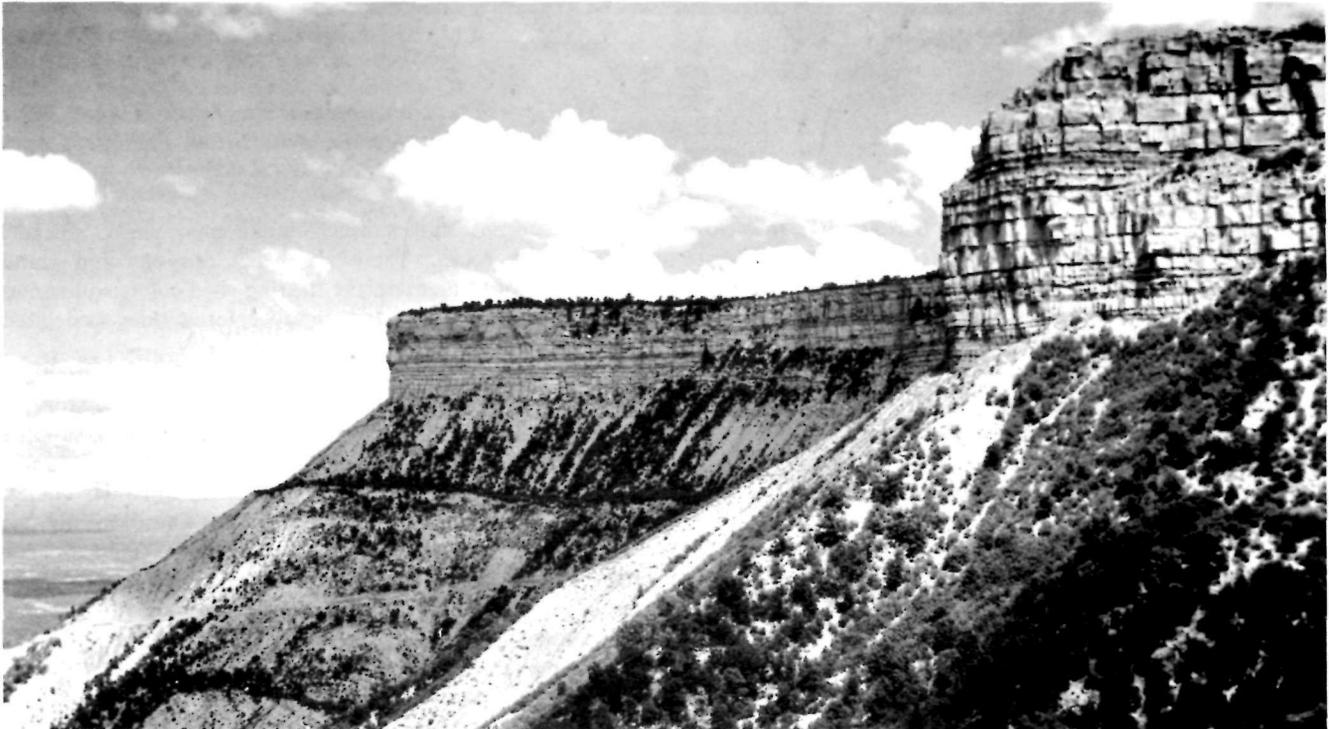
resources. It may serve not only for the elevation of man's material welfare, but it may also serve for the enrichment of the human spirit. We would do well to remember that the world's dominant religions were born and evolved in desert regions.

Nevertheless, it is a rather melancholy fact that almost everybody who has anything official to say or to do with the desert immediately desires to industrialize it; but to industrialize the desert is to destroy the very thing that many people want. I speak of the increasing thousands in a mobile society who seek permanent or temporary location in the Southwest. The combination of favorable climate, unique beauty, and peaceful solitude is a basic human attraction peculiar to desert areas. Perhaps it will come to

acute of keeping nondesert lands from becoming desert as a result of man's activities. But here we are concerned with the maintenance of some fair samples of natural desert for purposes of study, observation, and enjoyment with a minimum of disturbance.

This will not be easy. For testimony on this important problem we can review some alterations occurring now in our California deserts which contain about thirty-six million acres, an area as large as the state of Illinois.

First, let me recall some of the activities of the Department of Defense on our local deserts. A basic problem in preservation of desert lands lies in the allocation of hundreds of thousands of acres of desert lands wholly controlled by the Army, Navy, Air Force, and Marines. You



Mesa Verde National Park, Colorado.

National Park Service

you, as it did to me, as a profound shock to learn that all the tremendous desert areas in San Bernardino County, California—largest county in the United States—are zoned for industry.

Possibly some of us are thinking, after all, why worry? Desert and semiarid lands occupy from one-seventh to one-half the land surface of the entire earth, depending on how you define your terms. Isn't our big problem the avoidance of the creation of more deserts rather than the conservation of existing ones?

The answer is plain—both are big problems. It is a sad truth that man's careless management of arid lands has tended to increase the acreage of barren desert. Paul B. Sears's famous classic, *Deserts on the March*, published in 1935, is still pertinent. Furthermore, Egon Glesinger of the Food and Agriculture Organization of the United Nations in Rome pointed out in *Scientific American* (July, 1960) that the Sahara and neighboring deserts in the Mediterranean region already have taken over 1.25 billion acres and are still advancing. It is perfectly clear that the problem is

will recall that their combined jurisdiction is huge in southern California alone, comprising some eight major installations, and containing 3,099,000 acres (nearly four times the area of Rhode Island). For a while the military was taking over desert lands in the Southwest so rapidly, it appeared that all the unallotted and unappropriated lands in the public domain might go this way. Fortunately, Congress intervened to prevent this.

I would like to call your particular attention to the so-called desert exercises of the department in recent years; specifically to Exercise Desert Strike in southern California, May 13 to 17, 1964. This was a joint Army-Air Force maneuver for which some fourteen million acres of desert land were designated.

In view of the obvious possibilities for harm to the desert and its fauna and flora, the Desert Protective Council publicly declared prior to the exercise:

(1) Under no circumstances should such maneuvers be permitted on lands now in use for general public recreation, scientific study, outdoor education, or similar purposes.

Nor should such maneuvers be permitted on lands earmarked for eventual recreational uses—such as the Providence Mountains, Cima Dome, Chuckwalla Mountains, and Whipple Mountains.

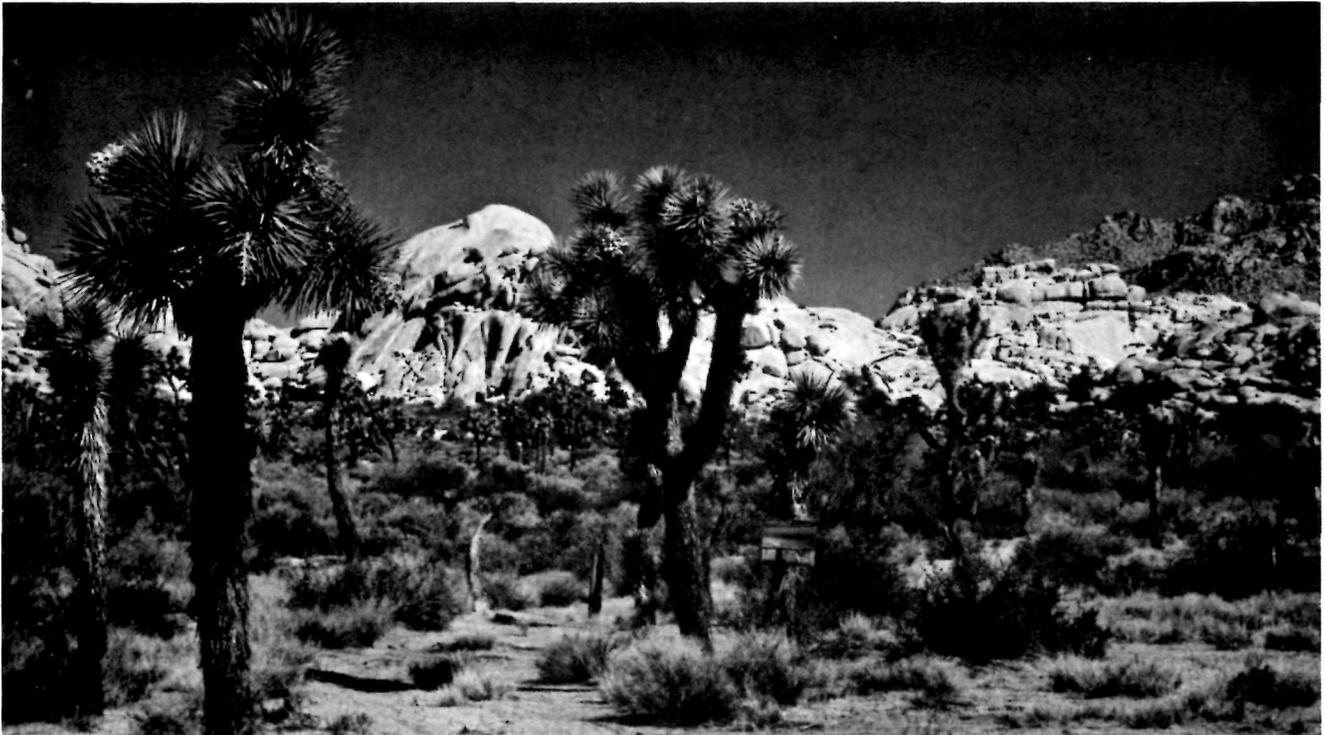
(2) These maneuvers should be restricted to the very great areas of the public domain now under the jurisdiction of the various armed services.

The Desert Protective Council informed the agencies involved that the ecology of these arid lands is extremely fragile and in delicate balance. What actually happened?

Dr. Ernest R. Tinkham of the Desert Protective Council's committee appointed to investigate Desert Strike reported a good deal of damage to the desert lands affected. For example, "In the wild region fifteen miles from

prevalent in a maneuver of this size and scope, and which many people ignore or do not realize, is the vast damage done to the wildlife of the area involved. . . . We can attest to many of the animals' being killed. It seems that the shovel-nosed snake was mistaken for the deadly coral snake (not found in this area), and the entirely harmless chuckwalla was mistaken for the Gila monster. Both these reptiles were sought out and slaughtered for this reason. As a matter of fact everything that crawled was immediately killed. . . . I hope this report . . . will be of some help to stop future destruction of the flora and fauna of this great desert country."

The Desert Protective Council commented, "Again we have tragic proof that to the men of the Pentagon the



*Joshua Tree National Monument, California.*

*National Park Service*

Rice . . . we found a cache of live ammunition partly buried in a mound of coarse sand. The cache contained not only boxes of ammunition, but machine gun belts, some of them six feet long, loaded with blank, but lethal, bullets. In an area fifteen to twenty miles south-southeast of Essex, the military had wrought much havoc to the desert landscape. The destruction of desert vegetation was widespread. Mojave yuccas, cholla cactus, *Larrea* and other native plant life had been uprooted and dragged into heaps. . . . Ration cartons, cans, and bottles littered the area. Farther along, approaching Essex from the east, large bivouac areas had been almost completely denuded of their plant cover."

In a letter to the Desert Protective Council, Verl Martin of the Desert Nomads wrote, "Desert Strike cost the American taxpayer some fifty-four million dollars and thirty-four lives. . . . In the areas I have checked over, Desert Strike has left the sectors in a most deplorable condition."

Roger Stinchfield, supervisor of Mitchell Caverns State Reserve, said, "Another phase of destruction, which is

unique deserts of our Southwest are indeed expendable." The worst of it is that the uninformed general public probably would agree with them!

One more incident bearing on Desert Strike may be cited. Recently Congressman Charles H. Wilson of Los Angeles called for a complete inquiry by the Department of Defense into the alleged abandonment of large quantities of explosives and equipment in the deserts of California, Arizona, and Nevada. In one case before the Municipal Court in Alhambra, California, a man was charged with possessing TNT and a tear gas bomb. When arrested, he claimed that literally millions of dollars' worth of equipment had been abandoned by the military, including explosives, booby traps, machine gun parts, rocket fuel, and aerial bombs.

It is of interest that a large portion of California's great Anza Borrego State Park has been closed to the general public because of the danger of unexploded ammunition abandoned in Desert Strike. Mr. Harry C. James, former executive secretary of the Desert Protective Council, kicked

a few loose rocks out of the way of his camera tripod in order to photograph a smoke tree. "Directly under my tripod was the ugly egg-shaped nose of a mammoth unexploded shell."

The sorry exhibit of desert impairment by the Department of Defense is indeed dramatic. But aside from the wastage of human life, the combined destructive aspect of our ordinary peaceful pursuits in the long run may be even more injurious to the desert than military actions. Let me give you a quick and incomplete inventory.

First, the real estate developers are indictable on several counts. Those fair-haired entrepreneurs insist that our entire gross national product and indeed the future of civilization rests on their activities. Their heavy machinery often eliminates all desert vegetation and animal life and reduces the pleasing irregularities of the landscape to a monotonous plain. Usually these aggressive pioneers of dollar making know nothing of desert ecology, its climate, or its moods. Some have actually placed subdivisions so that desert winds carried sand from nearby dunes into the very midst of building areas, filling up swimming pools, piling up sand to the level of the window ledges, and rendering tracts uninhabitable until extensive alterations were made.

Those of us who in recent years have traveled roads over the Mojave and Colorado Deserts have been unfavorably impressed by another kind of shotgun development—the slummification of the desert by jackrabbit homesteads. Fortunately, the purchase of these lands from the federal government has now been eliminated.

Outdoor advertisers comprise another large class of desert decimators. In rearing their huge and expensive billboards along well-traveled desert highways (San Geronio Pass to Palm Springs, California, is one with which many of us are familiar), they not only render desert travel more dangerous, but tend to conceal wide expanses of some of our most outstanding desert and mountain scenery.

Roadside zoos with their wretched and despairing caged animals help to make a paltry mess along our desert highways. Curio dealers are also not free from blame. Those who depend upon sales of the commercially popular

denizens of the desert—including horned toads, Gila monsters, chuckwallas, and desert tortoises among animals; cacti, ocotillos, Joshua trees, and many others among desert plants—exercise a continuously disintegrative effect.

In many instances those modern authoritarians, the highway commissions and road builders, official and unofficial, have sinned against the desert and against those of us who love it. While nobody objects to a few well-chosen roads to insure the safe and timely crossing of the desert, the construction of expensive new roads, paralleling excellent existing highways, can be vigorously challenged.

I must include in this discouraging inventory the cement plants and other manufacturing enterprises that are polluting the desert atmosphere. We householders of metropolitan areas have felt that the desert could provide escape, at least for a time, from the all-pervading smog of our coastal areas. But how much longer will this be true?

The gorgeous flora of the desert has been brought to favorable public attention by artists like Jane Pinheiro of Lancaster, California, as well as by leading periodicals, professional writers, and photographers. It is astonishing how enthusiastic the general public is over the colorful

---

**"The dedication of wilderness was a large part of the early national park idea, although but a few could have foreseen a time when little wilderness would remain." F. FRASER DARLING**

---

desert flowers appearing after good rains. But according to leading botanists and ecologists, the arid-lands flora has been so depleted by grazing animals, especially sheep, that many are gone. In some instances it is difficult or impossible for the experts to determine exactly the composition of the original flora. The problem of protecting a fair representation of native desert plants is critical.

Some of my most likable friends are officials or owners of the great electric power companies. But the shattering work roads and unsightly utility poles of these gigantic

*Southwest Energy Study.*

*National Park Service*



corporations all too often march straight across the desert with little regard for the native beauty of the landscape, despoiling forever some of our choicest scenic wonders. From the standpoint of attractiveness, the engineer's straight line is usually not the shortest distance between two points!

I have not mentioned the prospectors and pseudominers, who often have taken advantage of the antiquated basic mining laws of 1872 to hold desert lands for other purposes. Deserted mining camps are often the most unattractive features for hundreds of miles in any direction, virtual tin can dumps—trashy, unkempt, neglected, melancholy reminders of past activity. Many of their dangerous "glory" holes are left open and their abandoned and rusting machinery left standing.

The latest contributions to despoliation of deserts comes from the fertile minds of the machine makers: the dune buggies with their accompanying drag racers, tote goats, and motorcycles, the Hell's Angels type of community invaders that import raucous noise and poison gas into God's great silent desert. Must we infect everything with our vaunted technology?

Closely akin to the drag racers are the speedboat operators who invade and enthusiastically monopolize our few desert lakes and seas, such as Lake Havasu and Salton Sea, driving away the wildlife and changing peaceful environments into roaring urban infernos.

boards, his midways, his gambling hells, his liquor joints, or other reflections of his sophisticated civilization.

To preserve our attractive earth, we must give more effort to intelligent consideration of man's activities and to exercising disciplined restraint. We can agree that the desert includes a wide range of objects of intense interest, some of them commercial, others recreational and inspirational. It is for us to see that the others are given their share of support and protection.

It has been pointed out that the dominant religions of the world came out of the deserts. There are unfound resources in the desert, just as there are in every human being, which we ought to be able to utilize. By the way, our sincerest appreciation should go to the tenth biennial Wilderness Conference for affording attention to our vast reserve of desert wildernesses. The unique values of these regions have not received adequate emphasis in the past.

Just one last word. Basic to any kind of conservation, including desert preservation, is the assumption that man can and soon will learn to regulate his own population so that it will not overtax or destroy the natural resources on which he depends. Failing in this, there will be no need for concern, for not only the resources, but man himself will be lost forever. If we cannot solve this most difficult of all problems, *Homo sapiens* can count on joining the dodo, the passenger pigeon, the dinosaur, and the saber-toothed tiger in total extinction.

---

## In wildness is the preservation of the world. --Henry David Thoreau (1817-1862)

---

No list of desert destroyers would be complete without the predatory-animal hunter hired by government or private agencies to kill those interesting desert denizens, the coyote, the bobcat, the wolf, the mountain lion, and, often unintentionally, other carnivorous species. I should add that these so-called benefits are sometimes questionable even for the western stock ranchers who put political muscle into these eradication programs.

Finally, I should mention the careless tourist who, unfortunately, misses the point of all his vacation leisure and glorious mobility. These travelers often line our desert highways with waste paper, cans, tires, discarded containers, human feces, toilet paper, garbage, and liquor bottles. Local construction workers, truckers, business travelers, and transients contribute mightily too. But the careless tourist is as guilty as the other desecrators of our mountain, river, meadow, seashore, and desert heritage. Here is the trusty and true architect of "God's own junkyard." I do not think any one of us is free from guilt in this matter of conservation cleanliness and scenery.

Surely some of our generous and inspiring desert values are worth protection in their natural condition for our benefit and for future generations. We need a John Muir of the desert. Today nearly all these desert values are seriously threatened. If adequate attention is not given to them immediately, they will disappear, as some have already, to the great loss of humanity. There is an urgent need for a few vast—not token—wilderness areas in the desert where nature can be left on her own, and where man may commune with the country as God made it; but where he should not remain or introduce his noisy machinery, his ugly commercialism, his asphalt jungles, his garish bill-

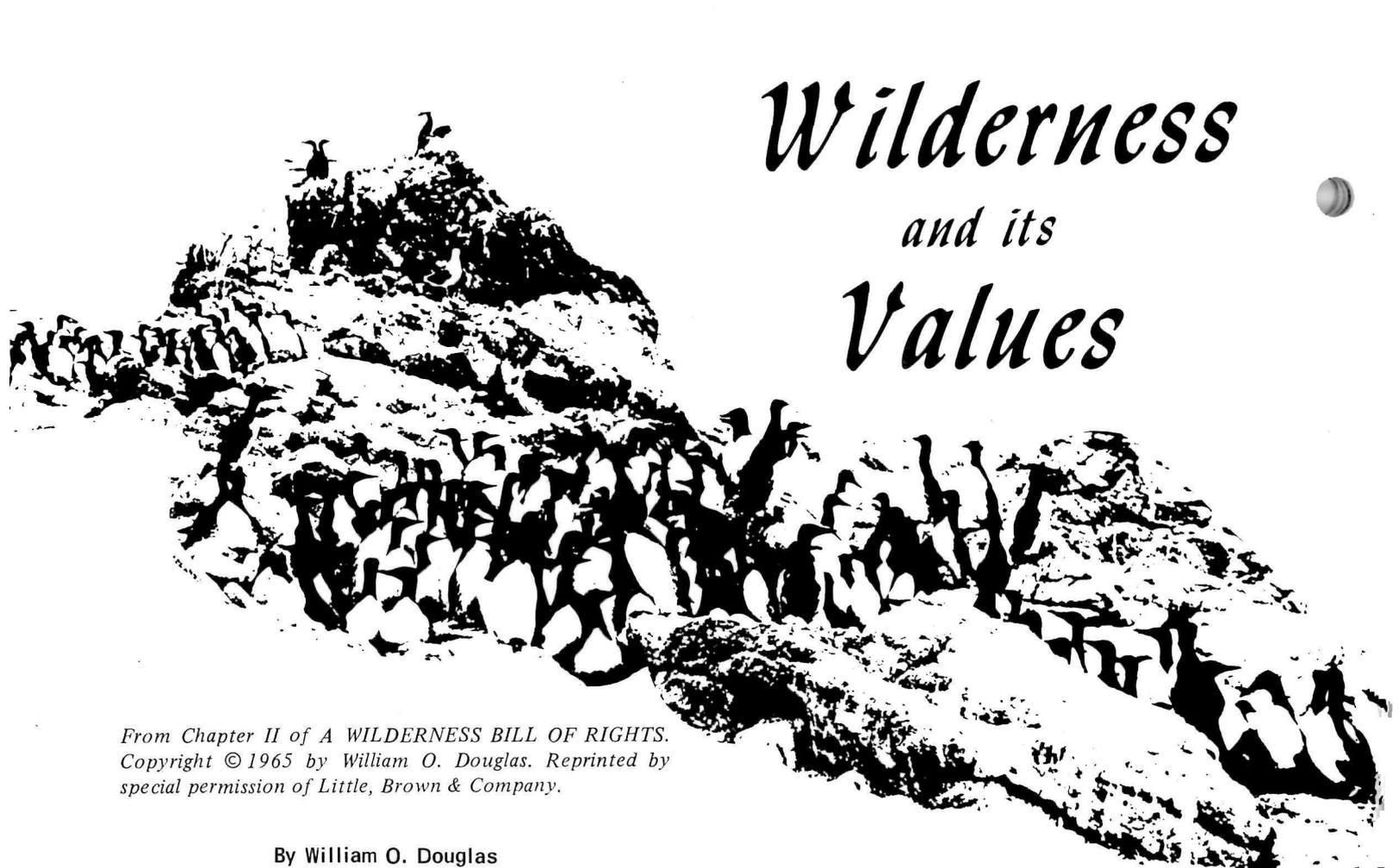
## WALTER PENN TAYLOR



Photo by R. C. Frampton

*Walter Penn Taylor is professor emeritus of conservation education at Claremont Graduate School and University Center in Claremont, California. For twenty years he did research on wildlife for the Departments of Agriculture and Interior, and since 1932 has held several professorships in the biological sciences in Texas, the Midwest, and California. He has published more than three hundred articles on zoology, ecology and conservation. A member and former officer of several civic and scientific organizations, he was awarded the Aldo Leopold Award for Distinguished Service to Wildlife conservation in 1961, and the Gold Medal of the Department of the Interior, in 1951.*

# Wilderness and its Values



*From Chapter II of A WILDERNESS BILL OF RIGHTS.  
Copyright © 1965 by William O. Douglas. Reprinted by  
special permission of Little, Brown & Company.*

By William O. Douglas

What are the wilderness values that this technological age is destroying? What wilderness values do we want to preserve? How important are they in terms of American civilization?

Congress, in the Wilderness Act, defined "wilderness" in terms that are unusually poetic for legislative halls:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act, an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wilderness is a roadless area where only a trail marks passage through a forest or over a range. Wilderness is prairie and foothills untouched by plows or pesticides. Wilderness is the rolling tundra of Alaska and the seashore not marred by man-made passages nor invaded by structures or other marks of civilization. Wilderness is the

unpolluted river and lake and the unbroken bowl. Wilderness is the vista that faced those who first topped the Appalachia going west. It is nature's labyrinth of down logs, primeval stands, meadows, and swamps whose creation preceded man. Wilderness is the earth before any of its wildness has been reduced or subtracted.

Wilderness has values greater than any price that can be placed upon the cellulose in its trees, the board feet of its merchantable timber, the ores which it contains, or the hydroelectric power of its rivers.

A park or other preserve, while often commemorating an historic event such as a battle or an heroic undertaking, is also a memorial of another sort—a memorial to the untouched, unspoiled continent as it looked before the tides of civilization reached it. Wilderness is the physical environment that helped shape the American saga. Pure-flowing streams guarded by gnarled roots of birch or hemlock—woodland meadows where trout lie under sodded banks—yellow pine, and snowbrush—coyote, and mule deer—white pine, red oak, black cherry of the piedmont—sycamore, river birch, and gums of the valleys—the tangle of viburnum, honeysuckle, wild grape of river bottoms—the tall grasses of the prairies—the redwoods that transform an entire valley into a cathedral—rivers of the north where moose feed in the bogans. We once had what seemed to be a limitless expanse. Wilderness at one time was a frontier to level so that pastures could be planted. Leveling the wilderness or rolling back the frontier became our land ethic from the day Plymouth Rock was reached. Nathaniel Morton, secretary of the Plymouth Colony, wrote in 1620:

Being now passed the vast ocean, and a sea of troubles before them in expectations, they had now no friends to welcome them, no inns to entertain or refresh them, no houses, or much less towns, to repair unto to seek for succour; and for the season it was winter, and they that know the winters of the country know them to be sharp and violent, subject to cruel and fierce storms, dangerous to travel to known places, much more to search unknown coasts.

Besides, what could they see but a hideous and desolate wilderness, full of wilde beasts and wilde men? And what multitudes of them there were, they then knew not: for which way soever turned their eyes (save upward to Heaven) they could have but little sollace or content in respect of any outward object; for summer being ended, all things stand in appearance with a weatherbeaten face, and the whole country, full of woods and thickets, represented a wild and savage hew.

At that time our wilderness was an apparently inexhaustible woodlot to be harvested and converted into dollars. The men and women who faced it saw its formidable features and slaved to overcome them. But they also knew its wonders and glories and were renewed by its spiritual qualities just as people are renewed by symphonies.

To walk these areas today is to relive American history and bring some understanding of our heritage.

The wilderness is also a refuge for automated man. Technology produces humdrum jobs; creativeness disappears from work; man, like his automobiles, becomes stereotyped. Some seek escape from this fate through television and liquor. Others turn to music and the arts. The wilderness offers an important alternative that brings into one's drab life the endless wonder and excitement of nature's flair for individuality rather than conformity.

Man needs food, shelter, and clothing; he needs guarantees of personal and community security; he needs to be linked with other humans in a gregarious relation. But he also needs to break away, to leave the group, to be on his own for hours or days or weeks. Man needs, in other words, temporary escape; and the sea and the wilderness are his own avenues for release from the communal bonds.

There are aesthetic values in nature's form and resolution that are important to creative art. The stark, naked beauty of winter, like the first blush of spring or the last hues of fall, is unparalleled. Open space in metropolitan areas is more and more the plea of city planners. The open space of wilderness gives art forms of infinite variety—from the glories in an undisturbed floor litter to the ancient stance of a white pine on a windblown shoulder of mountain.

Wilderness teaches lessons in time and in the interdependence of all life. Leopold in *Round River* wrote:

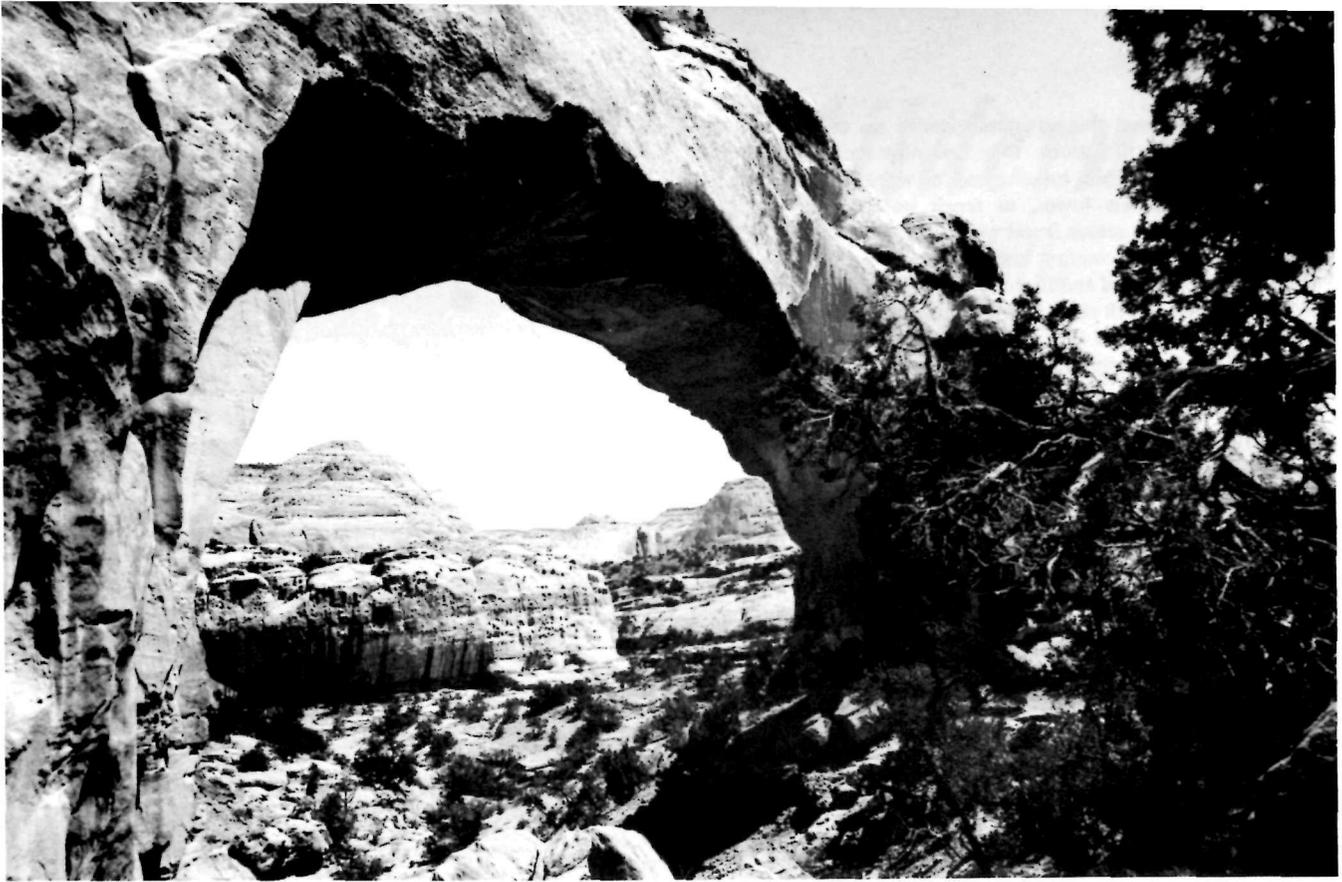
What is the most valuable part of the prairie? The fat black soil, the chernozem. Who built the chernozem? The black prairie was built by the prairie plants, a hundred distinctive species of grasses, herbs, and shrubs; by the prairie fungi, insects, and bacteria; by the prairie mammals and birds, all interlocked in one humming community of co-operations and competitions, one biota. This biota, through ten thousand years of living and dying, burning and growing, preying and fleeing, freezing and thawing, built that dark and bloody ground we call prairie.

Some areas have bogs; and for these northwestern Pennsylvania is famous. After the glaciers receded, large chunks of ice remained buried. When they melted, so-called

Alligator country, Everglades National Park, Florida.

National Park Service





Capital Reef National Monument, Utah.

National Park Service

kettle holes remained and they filled with water. Water plants grew, creeping out over the water. They decayed, filling in the bottom. Sphagnum moss flourished. The moss was in time succeeded by shrubs such as blueberry, bog rosemary, and the viburnums. Then as the bog filled in and the underpinning established itself, a climax of conifers took over. To see these is to understand some 14,000 years of time elapsed since the glacial age.

The Great Dismal Swamp in Virginia and North Carolina offers graduate courses in biology, botany, and natural wonders. There is fox fire—"a sort of cold light given off by certain fungi on decaying wood"—and birds galore, skink (lizard), and strange deer. Efforts have been made to log it, to drain it, to convert it into farmland. So far those efforts have failed. But the efforts to log it continue as predatory man tries to convert primeval loveliness into dollars.

A wilderness area—as distinguished from a managed forest—is necessary for some forms of wildlife. A wood duck needs rotted holes in tree trunks for nesting; therefore, a manicured forest marks his doom. The ivory-billed woodpecker also needs the dead or dying logs of a wild area for grubs and other insects on which it feeds. The deer usually thrives in the environment of logging, for the opening of forests produces browse. But the elk, caribou, goat, mountain sheep, grizzly bear, and wolf need large areas, protected by a buffer zone setting them aside from civilization. Some of these—the grizzly bear and wolf—are on the verge of disappearance. And the whooping crane, lesser prairie chicken, California condor, and ivory-billed woodpecker are threatened. They too can easily go the way of the passenger pigeon unless specially designed wilderness areas are reserved for them.

Wilderness is a therapist—a physician, indeed a preeminent one. The noise of civilization is one of man's worst enemies. Like a bacillus hostile to man, it produces disease—not directly but through the fatigue and the weariness that it creates. Tension caused by noise is enervating. Studies show that even constant noise, to which one presumably gets adjusted so that he becomes unaware of it, is a source of disease in man. Wilderness has noise as when great winds make treetops roar, setting up the cadence of a pounding surf. Wilderness noise is also the murmur of brooks, the chatter of squirrels, the scolding of camp robbers. Wilderness noise is the sequence of birdcalls just before dawn, the ecstatic music of the whippoorwill at dusk, and the deep quiet of a darkened forest. The noise of wilderness is varied; it has no monotony; it is the music of the earth of which man is an integral part whether he knows it or not. The healing effects of wilderness are well known. Cares slough off; the conscious and unconscious springs that create tension are relaxed; man comes to an understanding of his relation to the earth from which he came and to which he returns. The idea has been variously put.

Richard Lieber stated in *American Planning and Civil Annual*: "Converse with nature restores happiness; communion with its mysterious forces, antaeus-like, fills us with renewed strength and rids us of fear. It is the land and all it contains which performs the miracle."

Wordsworth, Thoreau, Muir, Leopold, Murie—each experienced the healing effects of the wildness of nature, and together they constitute an illustrious list of witnesses in its favor.

Wilderness helps us preserve our capacity for wonder—

the power to feel, if not to see, the miracles of life, of beauty, and of harmony around us. All humans have that capacity; children are the most sensitive to their environment. Giving them an opportunity to become acquainted with the true wilderness of our plains, swamps, valleys, and mountains, will give them insight into the interrelation of all life. The child learns that the green leaf is the link between life on earth and the energy of the sun. The hemoglobin molecule in man has one atom of iron, while the chlorophyll molecule, the green substance of plant leaves, has one atom of magnesium. The relation is close, enabling Donald Culross Peattie to say in *Flowering Earth*, as he touched a beech with his hand, "We be of one blood, brother, thou and I." Once man understands his dependency on the living resources of the earth and is filled with wonder, he becomes dedicated to the task of conserving them.

Wilderness areas are, or should be, teaching areas. Every county in the land should have at least one, and cities, too, where it is not too late to save a nearby swamp, a meadow, or a stand of woods. An outdoor teaching area is priceless to botanists, biologists, ornithologists. A wilderness is a living library, richer in many respects than a library filled with books. It is a research laboratory for the ecologist, free of any of the man-made controls such as pesticides.

Leopold said in *A Sand County Almanac*: "Of the 22,000 higher plants and animals native to Wisconsin, it is doubtful whether more than 5 per cent can be sold, fed, eaten, or otherwise put to economic use. Yet these creatures are members of the biotic community, and if (as I believe) its stability depends on its integrity, they are entitled to continuance."

Charles Elton has shown that stability in a wilderness community depends upon the extent of the diversity within the community. In other words, the more plants and animals of different kinds that it contains, the less subject to upset it appears to be. The more complicated the biotic community, as in the jungle, the more stable it becomes. Instability increases when the biotic community becomes simpler, as it does when we move toward the North Pole or increase our altitude by climbing a mountain. Thus we in the temperate zone have special responsibilities when we put our plow to the soil, when we enter forests with bulldozers, or when we spray it with a pesticide.

A wilderness area—free from man-made controls—is critical in the search for botanical and biological specimens useful to man. The reward may be a plant or fruit with disease immunity; it may be an animal parasite or a fungus useful in commercial or other processes; it may be soil bacteria or fungi useful in medicines. Chemical fertilizers destroy many microorganisms in the soil. A wilderness area therefore does continuous service as a "control" plot. Thomas Morley, a botanist at the University of Minnesota, reported in 1960 in *The Conservation Volunteer* of the Minnesota Department of Conservation that planted stands of pine developed severe infestation of the looper moth, of which the tit is the natural predator. A tit in an environment of hardwoods raised five offspring, while a tit in the pine tree environment raised only one. Investigation showed that in natural areas the tit had an abundance of calcium, but in the man-made pine areas had little calcium, and that low calcium was responsible for the failure of tits to raise large families. In other words, the natural com-

munity gave a key to the solution of a problem created by man's planted pine tree forest. The examples could be multiplied.

The hunter knows the excitement of stalking and the excitement of the kill. Yet in time he often comes to realize that satisfaction of his atavistic desire serves an ignoble end and that preservation of wildlife ranks higher. That realization opens vast new worlds in which even amateurs perform brilliantly—in photography as well as in biology and in the symbiotic relation of wildlife to wilderness. The fisherman often travels the same cycle, beginning with a long climb to an alpine lake. Having realized in time that there are now more people than fish, his rewards still include the long climb but they have broadened to embrace biology, zoology, geology, botany, and all the other sciences which teach lessons of the wilderness. He may now be a student of the hundreds of flies who live in the high lakes and whose life cycle from egg to nymph to airborne creature may be annual, biannual, or even less frequent. He may have become a fish biologist or transferred his interest to skin diving and to the greater piscatorial glories of the ocean.

Our ethic has become the automobile, the bulldozer, the industrial plant. The growth factor in gross national product is the controller before which all must give way. The meadow, the swamp, the wooded alcove and their inhabitants must surrender. Commercial and mechanical recreational use and productive use come first; conservation use is low on the totem pole.

continued

## A Wilderness Bill of Rights

"...The Bill of Rights which makes up the first ten amendments to our Constitution, contains in the main guarantees to minorities. These are guarantees of things that government cannot do to the individual because of his conviction or belief or other idiosyncrasies. When it comes to wilderness we need a similar Bill of Rights to protect those whose spiritual values extend to the rivers and lakes, the valleys, and the ridges, and who find life in a mechanized society worth living only because those splendid resources are not despoiled.

\* \* \* \* \*

The ingredients of a Wilderness Bill of Rights must be reflected in laws, regulations, and administrative orders that reflect governmental purposes through all levels—from the village, municipality, county, state, and on up to the federal government. Such measures to be effective must stem from wide public approval and undertake to accommodate the conflicts between preservation of wilderness on the one hand and the traditional American concept of industrial or other business use of forests, waterways, and beaches for commercial purposes on the other. The wilderness cannot be preserved against the pressures of population and "progress" unless the guarantees are explicit and severely enforced, unless wilderness values become a crusade.

We need a new conservation ethic if we are to have sanctuaries of wilderness left commensurate with the need. This ethic was described by Leopold in *A Sand County Almanac*: "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."

This means education, starting in the early years, which introduces reverence, wonder, and awe of nature, not the power of the bulldozer, as symbols of virtue. It means

introducing biologists, botanists, and ornithologists, as well as engineers and landscape architects, into our planning councils. It means the invention of new procedures that hold the hand of the developer until all alternatives to defacing rolling green hills or destroying wilderness sanctuaries are exhausted. And it means above all else making conservation a civic cause and uniting all of its advocates in a united front against the hundreds of threatened invasions that appear year after year.

## WILLIAM O. DOUGLAS



*William O. Douglas has been an Associate Justice of the U.S. Supreme Court since April 17, 1939. A noted conservationist, he is one of America's most prolific writers on the subject of wilderness. Among his many books are OF MEN AND MOUNTAINS (1950), BEYOND THE HIGH HIMALAYAS (1952), EXPLORING THE HIMALAYA (1958), MUIR OF THE MOUNTAINS, (1961), FAREWELL TO TEXAS: A VANISHING WILDERNESS (1967), MY WILDERNESS, THE PACIFIC WEST (1960), and A WILDERNESS BILL OF RIGHTS (1965). When the Chesapeake and Ohio Canal was dedicated as a national historical park in January 1971, Justice Douglas saw the realization of a goal he had long sought and for which he had organized an effective citizen's campaign.*

*Swimming Moose at Isle Royal National Park, Michigan.*

*National Park Service*



From the time Yellowstone National Park was established in 1872; wilderness preservation has undergirded the management of our National Park System. The national park movement has been a focal point and fountainhead for an evolving wilderness philosophy within our country for almost a century.

--George B. Hartzog, Jr.

### The President On Wilderness

The preservation of wilderness is not, like the control of environmental pollution in its many dangerous forms, an imperative for human survival. All the same, wilderness is a precious and irreplaceable resource of human society. Its beauty and solitude are wellsprings of refreshment for the spirit of man; its grandeur and balance teach us our place in the harmony of the universe; and without it we would all be poorer—however well provided with the material essentials of life. . . .

I urge the Congress to act quickly in favor of these new proposals as well as the ones already pending before it. We owe it both to ourselves and to future generations to safeguard as much of primitive America as we can—and time is not on our side. . . .

Those habits of mind we will need—the self-restraint that marks a mature society, the foresight of consequences that alone can insure survival in this interdependent world, the becoming humility that accords nature's domain an equal right to coexist with the domain of man—can serve us well, and not in wilderness preservation alone. They can—indeed they must—inform all our endeavors during the “Earth era” now dawning.

*Excerpt from President Nixon's statement  
accompanying Wilderness Message to the Congress  
April 28, 1971*

“The Service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments and reservations . . . to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

*Congressional Mandate Establishing the National Park Service*

