

PARK NATURALISTS AND THE EVOLUTION OF NATIONAL PARK SERVICE INTERPRETATION THROUGH WORLD WAR II

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SINCE ANTIQUITY principles of interpretation have been recognized as vital ingredients of formal teaching. More recently scientists, educators, naturalists, historians, and writers have used interpretive techniques effectively. Museums, zoological gardens, arboreta, and conservation, outdoor, scientific, and youth organizations have recognized the importance of interpretive methods as means of achieving their particular objectives. Even before official initiation of interpretive programs by the National Park Service, similar activities were being developed by individuals associated with universities and related institutions.

Although the National Park Service did not invent interpretation, that organization was largely responsible for the broad public recognition of its values in developing understanding and appreciation of nature and history. National Park Service efforts were obviously favored by the dramatic and inspirational attractions so typical of the vast park system. The National Park Service effectively modified formal educational processes to arouse the latent interests and desires of park visitors, and, as a result of ever-increasing numbers of such visitors over the years, *interpretation* has become practically a household word.

INTERPRETATION AND THE NATIONAL PARK CONCEPT

Interpretation has been basic to the national park concept since its inception. This is implied in very early statements on the need of individuals experienced in presenting facts—both interesting and understandable to laymen—underlying the diverse geological, biological, archeological, and historical interests in parks and reserves.

The first published reference to the desirability of establishing national parks appeared in 1833 when the *New York Daily Commercial Advertiser* published a series of letters by artist-explorer George Catlin, who had visited the Indian country of the Upper Missouri in 1832. In one of these letters Catlin urged the establishment of a “nation’s



National Park Service



Visitors view eruption of Old Faithful Geyser while on a nature walk at Yellowstone National Park. This photograph and all others in this article were furnished by the author.

Park, containing man and beast, in all the wild and freshness of their nature's beauty."¹ Catlin's statement implied the value of *understanding* the interests of such an area, a basic concept of present-day National Park Service interpretive programs.

Nathaniel P. Langford, early Yellowstone explorer and park advocate, expressed similar sentiments in a more forceful manner. In his account of the 1870 expedition to Yellowstone, he referred to the many wonders observed as "a new phase in the natural world; a fresh exhibition in the handiwork of the Great Architect; and while you see and wonder, you seem to need an additional sense, fully to comprehend and believe."²

The famous naturalist John Muir expressed similar thoughts in the same decade of the 1870s. While living and working in Yosemite Valley and the adjacent Sierra Nevada, he wrote: "I'll interpret the rocks, learn the language of flood, storm and the avalanche. I'll acquaint myself with the glaciers and wild gardens, and get as near the heart of the world as I can."³ So far as can be determined, his was the first use of the word *interpret* in this context.

EARLY INTERPRETIVE EFFORTS

Interpretation was a factor in some national parks, or areas later accorded that status, long before specifically designated National Park Service naturalists, archeologists, or historians existed—in fact before the National Park Service itself came into being. For example, *The Yosemite Guide-Book*, by California State Geologist J. D. Whitney, was published in 1869 and designed to satisfy early public curiosity concerning the Yosemite Grant. Established in 1864, the Yosemite Grant was the first extensive area reserved for public recreation, and it was administered by the state of California until 1906.⁴ Publication in 1886 of *In the Heart of the Sierras*, by James Mason Hutchings, had a similar purpose. In 1855 Hutchings had been one of the first "tourists" to visit Yosemite Valley; later he resided in the valley and, from 1864 to 1884,

operated one of the early hotels there. In addition to his deep interest in Yosemite, Hutchings was an astute innkeeper. He knew that travel to the area would increase and people would stay longer and return more often if the reasons for Yosemite's beauty were widely understood. His hotel would surely profit from such interest and understanding.⁵

Before the turn of the century, the educational values of a number of areas later incorporated into the national park system attracted well-known scientists. In 1891 Swedish archeologist Gustaf Nordenskiöld made initial scientific studies and excavations of cliff dwellings in Mesa Verde. Vernon Bailey of the U. S. Biological Survey and his wife Florence Merriam Bailey undertook in 1895 a study of animal life in the area which later became Glacier National Park. Two years later a U. S. Biological Survey party under the leadership of Dr. C. Hart Merriam made the first investigation of animal life about Mount Rainier. In 1899 Professor Rollin D. Salisbury visited the Glacier area for field studies with a group of geology students from the University of Chicago.⁶ This was the first of many university student groups that would study in various national parks during the following years.

During the era when a number of national parks were administered by the U. S. Army, several commanding officers who served as acting superintendents in both Yellowstone and Yosemite national parks showed interest in the educational value of those areas. Soldiers under the command of Lieutenant Moody, stationed in the Upper Geyser Basin of Yellowstone National Park, gave "cone talks" to park visitors as early as 1888, albeit with varied degrees of accuracy and success.⁷ In 1904 the annual report to the secretary of the interior by Major John Bigelow, acting superintendent of Yosemite National Park, noted that an arboretum and botanical garden had been established by Lieutenant Henry F. Pipes of the Medical Corps, including trails with labeled trees and other plants. These were the first nature trails. Major Bigelow also ex-

¹George Catlin, *The Manners, Customs and Condition of the North American Indians*, 2 vols. (London, 1841), 1: 261-62; C. Frank Brockman and Lawrence C. Merriam, Jr., *Recreational Use of Wild Lands*, 2d ed. (New York: McGraw-Hill, 1973), pp. 35-36.

²Nathaniel P. Langford, *Diary of the Washburn Expedition to the Yellowstone and Firehole Rivers in the Year 1870* (St. Paul: F. J. Haynes, 1905); Langford, *The Discovery of Yellowstone National Park, 1870* (St. Paul: J. E. Haynes, 1923).

³Linnie Marsh Wolfe, *Son of the Wilderness: The Life of John Muir* (New York: Alfred A. Knopf, 1945), p. 144.

⁴J. D. Whitney, *The Yosemite Guide-Book* (Cambridge: University Press, for California Legislature, 1869).

⁵Carl P. Russell, *One Hundred Years in Yosemite: The Story of a Great Park and Its Friends*, rev. ed. (Berkeley: University of California Press, 1947), pp. 48, 50, 58, 96; James Mason Hutchings, *In the Heart of the Sierras* (Oakland: Pacific Press, 1886), pp. 80-92, 138-41.

⁶National Park Service, *Mesa Verde National Park*, Information Circular (Washington: GPO, 1966); Vernon Bailey and Florence Bailey, *Wild Animals of Glacier National Park* (Washington: GPO, 1918); W. P. Taylor and W. T. Shaw, *Mammals and Birds of Mount Rainier National Park* (Washington: GPO, 1927); Robert N. McIntyre, "Short History of Mount Rainier National Park" (unpublished ms., Longmire, Washington, 1952); Harold C. Bryant and Wallace W. Atwood, Jr., *Research and Education in the National Parks* (Washington: GPO, 1936).

⁷Aubrey L. Haines, *The Yellowstone Story*, 2 vols. (Boulder: Colorado Associated University Press, 1977).

I'll interpret the rocks, learn the language of flood, storm and the avalanche. I'll acquaint myself with the glaciers and wild gardens, and get as near the heart of the world as I can.

John Muir

pressed hope that this arboretum would someday be supplemented by a museum and library.⁸ The arboretum was later abandoned, though vestiges of it appeared for many years. It was located at Wawona, then headquarters of Yosemite National Park, which surrounded the state-controlled Yosemite Grant.

In 1905 Frank Pinkley, then custodian of Casa Grande ruin in Arizona (a protected area later designated a national monument), displayed archeological artifacts. This was in effect the first museum exhibit in a National Park Service area. Pinkley later served for many years as superintendent of the Southwestern National Monuments, a group of relatively small archeological areas administered for a time as one unit.⁹

In 1908 the noted archeologist J. W. Fewkes of the Smithsonian Institution initiated his study and excavations in Mesa Verde National Park, and, in the same year, duties of the first park rangers included guiding visitors to cliff dwellings and related points of interest in Mesa Verde. These early park rangers, local men familiar with the area, had no background in archeology; still, their efforts may be regarded as an early attempt to interpret national park interests.¹⁰

From 1909 through 1916, paralleling growth of interest in the establishment of a bureau to coordinate the administration of the national parks then in existence, the federal government published a

number of booklets concerning some of these areas.¹¹ Furthermore, in 1912 *Popular Science Monthly* published an article titled "The National Parks from the Educational and Scientific Side," by Lawrence F. Schmeckebier, chief of publications for the Department of the Interior.¹² Establishment of the National Park Service in 1916 was accompanied by publication of several books which enjoyed great popularity for years and which were revised and reissued many times. Publication of the initial deluxe edition of Robert Sterling Yard's *National Parks Portfolio* was financed by the railroads, and Yard's *Glimpses of Our National Parks* and a companion volume on national monuments were issued by the Government Printing Office. Additional booklets on individual national parks were published by 1920.¹³

MORE DIRECT INTERPRETIVE EFFORTS

As public interest in the national parks expanded, more direct, on-the-spot (though still informal and largely unstructured) interpretive activities de-

¹¹Annual Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1917 (Washington: GPO, 1917). The booklets, all published by GPO in Washington, include: J. W. Fewkes, *Antiquities of Mesa Verde National Park: Spruce Tree House* (1909); Fewkes, *Antiquities of Mesa Verde National Park: Cliff Palace* (1911); Fewkes, *Excavation of Sun Temple* (1916); J. S. Diller, *Geological History of Crater Lake* (1912); M. J. Elred, *Some Lakes of Glacier National Park* (1912); W. H. Reed, *Geysers* (1912); Ellsworth Huntington, *The Secret of the Big Trees: Yosemite, Sequoia and General Grant National Parks* (1913); M. R. Campbell, *Origin of Scenic Features of Glacier National Park* (1914); Campbell, *Glacier National Park—A Popular Guide to Its Geology and Scenery* (1914); W. C. Alden, *Glaciers of Glacier National Park* (1914); F. E. Matthes, *Mount Rainier and Its Glaciers* (1914); F. H. Knowlton, *Fossil Forests of Yellowstone National Park* (1914); W. C. Kendall, *Fishes of Yellowstone National Park* (1915); J. F. Pernot, *Forests of Crater Lake National Park* (1916); J. B. Flett, *Features of the Flora of Mount Rainier National Park* (1916); G. F. Allen, *Forests of Mount Rainier National Park* (1916).

¹²Robert Shankland, *Steve Mather of the National Parks* (New York: Alfred A. Knopf, 1951), pp. 59, 257.

¹³Robert Sterling Yard, *National Parks Portfolio* (New York: Scribner's, 1916); Yard, *Glimpses of Our National Parks* (Washington: GPO, 1916). Additional booklets, all published by GPO, included: Willis T. Lee, *Geologic Story of Rocky Mountain National Park* (1917); J. S. Diller, *The Volcanic History of Lassen Peak* (1918); Vernon Bailey and Florence Merriam Bailey, *Wild Animals of Glacier National Park* (1918); Roger W. Toll, *Mountaineering in the Rocky Mountain National Park* (1919); Arnold Hague, *Geologic History of Yellowstone National Park* (1920); C. L. Hall, *Forests of Yosemite, Sequoia and General Grant National Parks* (1920); F. E. Matthes, *Sketch of Yosemite National Park and an Account of the Origin of Yosemite and Hetch Hetchy Valleys* (1920). See also *Annual Report* for 1920.

⁸Carl P. Russell, "The Place of the Museum in the Yosemite Educational Program," in *Yosemite Ranger-Naturalist Manual*, vol. 1 (1929): See also Russell, *One Hundred Years in Yosemite*, p. 187; Ned J. Burns, *Field Manual for Museums* (Washington: GPO, 1941), p. 4; Howard E. Weaver, "Origins of Interpretation," chap. 2 in Grant W. Sharpe et al., eds., *Interpreting the Environment* (New York: John Wiley & Sons, 1976).

⁹Casa Grande was given federal protection in 1889 and formally designated a national monument in 1918. National Park Service, *Index of the National Park System* (Washington: GPO, 1975), p. 49; Burns, *Field Manual for Museums*, p. 4.

¹⁰National Park Service, *Mesa Verde National Park*; Richard M. Howard, "Mesa Verde—A Pioneer in National Park Interpretation," *Naturalist*, vol. 20 (1969); Ricardo Torres-Reyes, *Mesa Verde National Park, An Administrative History, 1906-1970* (Washington: National Park Service, Office of History and Historic Architecture, 1970), pp. 54, 87.

veloped. Some federal employees as well as private hotel operators in a number of national parks were sufficiently interested in the significance of their areas, as well as cognizant of the value of public understanding of that significance, to voluntarily bring such information to the attention of the public. For instance, during Yellowstone's "stage-coach era" employees of the Yellowstone Park Association and the Wylie Camping Company conducted informal educational activities of a sort, although these were often prompted for the purpose of encouraging visitors to give tips. In addition, J. E. Haynes, a Yellowstone enthusiast who operated a photographic studio in the park for many years, gave lectures to visitors at Old Faithful in 1907. By 1911 campfire programs which included explanation of park interests were well established as a feature of visitor entertainment provided by the Wylie Camping Company and its successor, the Wylie Permanent Camping Company. Recruitment of school teachers and college students for summer work in Yellowstone was a basic policy of the Wylie companies, as well as with some other early hotel operators in other national parks.¹⁴

In some instances local interest in the natural history of national parks had grown to a point which demanded attention of scientifically oriented personnel. To satisfy this need, certain park administrators employed such people as park rangers. One of the first of these was J. B. Flett, a Tacoma biology teacher who was employed as a year-round park ranger in Mount Rainier National Park from 1913 to 1921. In Yosemite in 1915, Chief Ranger F. S. Townsley prepared and exhibited mounted birds and mammals in the Yosemite Ranger Station. In Mesa Verde National Park J. W. Fewkes began giving occasional talks on the area, as suggested by hotel operator Ollie Jeep.¹⁵

Several geological and biological surveys of national parks were also initiated during the second decade of the century. Included was an investigation of Yosemite's geology by F. E. Matthes and F. C. Calkins of the U. S. Geological Survey, initiated in 1913; the survey of vertebrate zoology of Yosemite by Drs. Joseph Grinnell and Tracy Storer

One of the chief functions of the national parks and monuments is to serve educational purposes.

Stephen T. Mather

of the Museum of Vertebrate Zoology at the University of California, undertaken in 1914; completion of a study of animal life in Glacier National Park by Vernon and Florence M. Bailey in 1917; and a survey of mammals, birds, and life zones of Mount Rainier National Park, led by W. P. Taylor and W. T. Shaw in 1919.¹⁶

Of particular importance were the activities of Enos A. Mills, who was influenced by John Muir before the turn of the century. In 1901 Mills established Longs Peak Inn near Estes Park, Colorado. He began guiding his guests about the area, and, within a decade, he had become a well-known naturalist, writer, and exponent of nature preservation. Mills was one of the innovators of nature guiding, among the first to outline nature-guiding principles and qualifications of nature guides, and for years conducted a "trail school" in the Estes Park area. In addition to having a large part in the establishment of Rocky Mountain National Park in 1915, he also opened opportunities for women in nature guiding. Esther Burnell, who homesteaded in the Estes Park region and later married Mills, was the first woman nature guide to be licensed by the government.¹⁷

Thus, in 1917 the annual report of the superintendent of Rocky Mountain National Park stated: "Young ladies who are well informed in matters relating to flowers, birds, animals, [and] trees are available to teach nature lore. . . . They have been highly successful and popular this season, and fill a long felt want."¹⁸ Those young women were employed by hotels in the area, but the National Park Service exercised control over their activities by a system of examinations and licensing. Their excursions with park visitors were limited to day trips

¹⁶Russell, *One Hundred Years in Yosemite*, pp. 131, 135; Bailey and Bailey, *Wild Animals of Glacier National Park*; Taylor and Shaw, *Mammals and Birds of Mount Rainier National Park*.

¹⁷Lloyd K. Musselmann, *Rocky Mountain National Park: Administrative History, 1915-1965* (Washington: National Park Service, Office of History and Historic Architecture, 1971), pp. 17-18; Enos A. Mills, "The Children of My Trail School," *Saturday Evening Post*, March 1, 1919, pp. 49-53; Mills, *The Adventures of a Nature Guide* (New York: Doubleday-Page Co., 1920); Mills, "Guiding in the National Parks," *National Parks Bulletin* 10 (November 1929); Harold C. Bryant, *Nature Guiding*, American Nature Association Bulletin 17 (1925); Weaver, "Origins of Interpretation."

¹⁸*Annual Report for 1917*.

¹⁴Haines, *The Yellowstone Story*; Yellowstone National Park, "Educational Division Organization, Yellowstone National Park," 1928 (mimeo.); *Proceedings of the National Park Conference, Yellowstone National Park, September 11-12, 1911* (Washington: GPO, 1912).

¹⁵C. Frank Brockman, *Story of Mount Rainier National Park* (Longmire, Washington: Mount Rainier National Park Natural History Association, 1940); McIntyre, "Short History of Mount Rainier National Park"; Russell, "The Place of the Museum in the Yosemite Educational Program"; Burns, *Field Manual for Museums*, p. 5; Torres-Reyes, *Mesa Verde National Park*, p. 189.

below timberline, unless accompanied by an experienced male guide. By 1918 the demand for authentic information on natural history had become so great that lists of birds and plants of the area, prepared by Park Ranger Dean Babcock, were printed for distribution to visitors.¹⁹

The World War I era witnessed many new developments in the national parks. For example, in 1918 Mount Rainier National Park established a Bureau of Information, headed by Park Ranger J. B. Flett, to satisfy growing demand for authentic information on the area's natural history. A study of the annual recession of the Nisqually Glacier on Mount Rainier was also initiated, largely through the interest of Professor Henry Landes, dean of the College of Science at the University of Washington. The LeConte Memorial Lectures in Yosemite were initiated in 1919 by the Extension Department of the University of California, Berkeley. These lectures, in which notable scientists took part, were a popular feature in Yosemite Valley until discontinued in 1923. Nature guiding was introduced in Glacier during the summer of 1919 by the Glacier National Park Hotel Company. For a period of four weeks, Gertrude Norton, popularly known as the "flower lady," was employed by that company to conduct field trips in wildflower meadows and to identify plants brought to the hotel by park visitors.²⁰

Perhaps the most important single event in the early history of National Park Service interpretation was the establishment of the Mesa Verde National Park Museum in 1918, the first museum in a Park Service area. It occupied a log building built in 1916 for use as a ranger station and was located on the rim of Spruce Tree Canyon overlooking Spruce Tree House. Initially a single case of artifacts was displayed here, but less than two years later this ranger station was developed into a more comprehensive museum. Materials found in Mesa Verde were exhibited in several large floor and wall cases, and photo enlargements of Mesa Verde scenes covered the walls. Archeologists working in the park also used the museum for lectures to park visitors.²¹

A donation of \$5,000 from Stella Leviston of San Francisco in 1921 was instrumental in replacing

this original log museum with the first unit of a more modern structure. Funds provided by Mrs. Leviston were supplemented by additional donations from John D. Rockefeller, Jr. Such generous support of the Mesa Verde museum program was due primarily to the interest and efforts of Superintendent and Mrs. Jesse Nusbaum, which also resulted in establishment of the park library. Construction of the new museum in Mesa Verde began in 1923; it was formally opened to the public in 1925 and additional units and related improvements were added in later years.²²

Parenthetically, a statement by R. B. Marshall, who served briefly as superintendent of national parks immediately preceding establishment of the National Park Service, is also significant in the agency's interpretive history. In his report to the secretary of the interior in 1916, he emphasized that national parks were "not designated solely for the purpose of supplying recreation grounds. The fostering of recreation purely as such," he wrote, "is more properly the function of city, county and State parks, and there should be a clear distinction between the character of such parks and national parks. . . . [National parks] possess an educational value that cannot be estimated."²³ After establishment of the National Park Service in 1916, the initial report of Director Stephen T. Mather further emphasized that "one of the chief functions of the national parks and monuments is to serve educational purposes."²⁴

BEGINNING OF FORMAL INTERPRETIVE PROGRAMS

Thus, the stage was set for the organization of formal interpretive programs in National Park Service areas. Although a number of areas had inaugurated certain types of interpretive activities, it is generally conceded that formal, official National Park Service interpretive programs were initiated concurrently in Yellowstone and Yosemite in 1920. Interpretive programs in both parks included a variety of activities—nature-guided field trips, museums, regular natural history lectures, natural history bulletins (which evolved into "nature notes"), and related features.

In 1919, shortly after the end of Army administration of Yellowstone National Park, Horace M. Albright was given the dual responsibility of being

¹⁹Musselmann, *Rocky Mountain National Park*, pp. 147-48; *Annual Report* for 1918.

²⁰Brockman, *Story of Mount Rainier National Park*; McIntyre, "Short History of Mount Rainier National Park"; Russell, *One Hundred Years in Yosemite*, p. 189; Shankland, *Steve Mather of the National Parks*, p. 258; Personal communication, Steve Medley to author, March 9, 1976; "National Park Service News," no. 4, September 1919 (mimeo.).

²¹*Annual Report* for 1918; Howard, "Mesa Verde"; Torres-Reyes, *Mesa Verde National Park*, p. 94; Burns, *Field Manual for Museums*, pp. 5, 15.

²²*Annual Report* for 1924; Burns, *Field Manual for Museums*, p. 15; Freeman Tilden, *The National Parks, What They Mean to You and Me* (New York: Alfred A. Knopf, 1951); Howard, "Mesa Verde"; Torres-Reyes, *Mesa Verde National Park*, pp. 179-85.

²³*Annual Report* for 1916.

²⁴*Annual Report* for 1917.



Yosemite National Park



Sequoia National Park

Top: Nature Guide Headquarters at Yosemite National Park, about 1920. Enid Michael, who served for many years as a seasonal ranger-naturalist, identifies wildflowers for several youthful visitors. Below: A tent served as the first museum in Sequoia National Park. It was established by Commissioner Walter Fry at Giant Forest in 1923.

superintendent of Yellowstone and field assistant to Director Stephen T. Mather. As an associate and right-hand man of Mather in the organization of the National Park Service, Albright was well aware of the importance of visitor understanding and appreciation of the significant park features. He recognized that information on features of Yellowstone, then dispensed largely by various hotel employees, often left a great deal to be desired. He also became acquainted with Milton P. Skinner who had been associated with Yellowstone in various capacities for many years. Skinner first came to Yellowstone as a young college student employed by the Yellowstone Park Association; he became dedicated to the park, studied its flora, fauna, and hydrothermal features, and over many years voluntarily assisted visitors in gaining understanding and appreciation of the park. By 1910 he was an advocate of the establishment of a museum and educational service in Yellowstone. In 1919 Superintendent Albright appointed Skinner to the position of park ranger, thus placing his voluntary educational efforts on an official basis. Albright placed these interpretive efforts on an even firmer foundation in 1920 by naming Skinner park naturalist of Yellowstone. Milton P. Skinner was thus the first individual to be officially designated as park naturalist on a year-round basis in the National Park Service.

Skinner began developing a park museum in the former Bachelor Officers' Quarters at park headquarters at Mammoth Hot Springs. This building, with greatly improved exhibits and related facilities, still serves that purpose. Early exhibits included specimens of mounted mammals prepared by Chief



The Yosemite National Park Museum was constructed with funds provided by the Laura Spelman Rockefeller Memorial. Completed in 1925, it was photographed in 1928 by the author.

Ranger Sam T. Woodring. With the assistance of two seasonal park rangers employed for the purpose by Superintendent Albright, Skinner also organized natural history lectures on the park, guided field trips to points of interest, and prepared natural history bulletins (forerunner of *Yellowstone Nature Notes*) which were posted at key locations in the park for the interest of visitors.²⁵

Yosemite's interpretive program was also initiated during the summer of 1920. It consisted of nature-guided field trips and evening lectures at hotels and campgrounds in Yosemite Valley, organized and carried out by Dr. Harold C. Bryant, then educational director of the California Fish and Game Commission, and by Dr. Loye Holmes Miller, a professor at the University of California at Los Angeles. They were assisted by Park Ranger Ansel F. Hall and Enid Michael, wife of the local postmaster.

The Yosemite program stemmed from Director Stephen T. Mather's visit to Fallen Leaf Lake in the Lake Tahoe region in 1919. Both Miller and Bryant were engaged in nature guiding and evening lectures there. Miller's activities were an out-

growth of similar work which he had done in the Los Angeles area, largely for teachers, for many years. Bryant, who had been active in nature education in the San Francisco Bay region, had come to Fallen Leaf Lake to participate in a program sponsored in part by Dr. and Mrs. C. M. Goethe. The Goethes had become interested in nature education in Europe prior to World War I and were encouraging similar programs in the United States. Mather noted the great popularity of the nature programs among vacationers at Fallen Leaf Lake and arranged for Miller and Bryant to transfer their activities, as a joint venture, to Yosemite National Park for the following summer. Since Miller had faculty responsibilities at UCLA, a mutual agreement was reached whereby Bryant organized and directed the program. The Yosemite Free Nature Guide Service was the nucleus of interpretive efforts in that park.²⁶

Park Ranger Ansel F. Hall, in addition to assisting in the initial nature-guide program in 1920, also devised a plan for a park museum. Superintendent W. B. Lewis approved the plan and named Hall as permanent educational officer for Yosemite National Park. In 1921 Hall developed the initial Yosemite Museum in the former studio of artist Cris Jorgensen. Included among exhibits were the mounted birds and mammals previously prepared by Chief Ranger F. S. Townsley and a scale model of Yosemite Valley constructed by Hall. Development of this museum also included formation of the Yosemite Museum Association (forerunner of the Yosemite Natural History Association), organized by Hall in 1920 for the purpose of soliciting private donations for the museum program. He subsequently obtained

²⁵An attempt in 1882 by Professor Spencer F. Baird, secretary of the Smithsonian Institution, to have a naturalist attached to the Yellowstone National Park staff came to naught. An incompetent person, appointed instead of the qualified individual Baird recommended, lasted for only a brief time. Furthermore, primary duties of this position were scientific observations of big game and other park fauna; they did not include interpretive activities with park visitors. *Annual Report* for 1921; Bryant, *Nature Guiding*; Carl P. Russell, "Scientific Investigations in Yellowstone National Park," n.d. [1930] (mimeo.); Bryant and Atwood, *Research and Education in the National Parks*; Burns, *Field Manual for Museums*, p. 9; Personal communication, Horace M. Albright to author, September 25, 1975; Haines, *The Yellowstone Story*.

²⁶C. M. Goethe, "Yosemite Nature Guides," *Sierra Club Bulletin* 11 (1921): 167-70; Bryant, *Nature Guiding*; Bryant and Atwood, *Research and Education in the National Parks*; Burns, *Field Manual for Museums*, p. 5; Russell, *One Hundred Years in Yosemite*, pp. 137-38; Freeman Tilden, *Interpreting Our Heritage: Principles and Practices for Visitor Services in Parks, Museums, and Historic Places* (Chapel Hill: University of North Carolina Press, 1957), p. 34; National Park Service, "History of the Educational Movement in the National Park System," chap. 3, sect. 1 of "NPS Administrative Manual, Vol. 25; Information and Interpretation in the Field, Basic Principles," n.d. (mimeo.); *Yosemite Nature Notes* 39 (July 1960); Weaver, "Origins of Interpretation"; Bryant, "Yosemite Free Nature Guide Service," in *Annual Report* for 1920.

donations totaling \$9,000, thus initiating a fund for the construction of a more adequate building, together with preparation of exhibits. As a result of his energy and dedication to interpretation, Ansel F. Hall was named park naturalist of Yosemite in 1921, the second individual in the National Park Service so designated.²⁷

The early Yosemite interpretive program attracted the attention of the American Association of Museums. After investigating museum possibilities in the national parks, the AAM obtained a donation of \$75,500 from the Laura Spelman Rockefeller Memorial for a modern museum in Yosemite. That structure was completed in 1925 and formally opened in the following spring. It served Yosemite as interpretive headquarters until incorporated into an expanded visitor center, opened in 1968.²⁸

Park Naturalist Ansel F. Hall was appointed in 1923 to the newly established position of chief naturalist of the National Park Service and subsequently established headquarters for the Educational Division of the Park Service on the campus of the University of California in Berkeley, through cooperation of the School of Forestry. Carl P. Russell was appointed as Hall's successor as park naturalist in Yosemite.²⁹

WOMEN AS PARK SERVICE INTERPRETERS

Women were among the first interpreters in National Park Service areas. As noted earlier, Esther Burnell Mills and several others were employed as nature guides by various hotels in and adjacent to

Rocky Mountain National Park in 1917. Gertrude Norton had similar duties in Glacier National Park in 1919. However, the first women employed directly by the National Park Service as interpreters served in Yellowstone and Yosemite in the early 1920s.

Isobel Bassett, a geologist, was employed as a seasonal park ranger in Yellowstone in the summer of 1920 to assist Park Naturalist Skinner in initiating his interpretive program. She had visited Yellowstone with a tour party during the previous summer, and her voluntary lectures on park geology to that group so impressed Superintendent Albright that he arranged for her employment. Bassett was the first woman so employed by the National Park Service. Her marriage in the fall precluded her return to Yellowstone, but she was succeeded in the summer of 1921 by Mary A. Rolfe. A school teacher, Rolfe subsequently wrote a book on national parks for school use, published in 1928. Marguerite Lindsley, first year-round woman park ranger of the National Park Service, also assisted in Yellowstone's interpretive program. She was born in Yellowstone, graduated in 1922 from Montana State College in Bozeman, and received a master's degree in bacteriology from Bryn Mawr College in 1926. During college years, beginning in 1921, she worked as a seasonal park ranger in Yellowstone; in 1926 she was appointed to the year-round park ranger staff. Lindsley continued in that capacity for several months after her marriage in 1928 to E. L. Arnold, also a Yellowstone park ranger. Thereafter she served as a seasonal ranger-naturalist (1929-1931) and in the fall of 1942 as a park ranger.³⁰

Herma Albertson Baggley was a seasonal ranger-naturalist in Yellowstone from 1928 through 1930. She passed the civil service examination for park naturalist in 1929 and was appointed to the year-round interpretive staff in 1931. She was the first woman to be appointed to a year-round naturalist position in the National Park Service. She continued to serve until 1935 when her husband, George F. Baggley, chief ranger of Yellowstone, was transferred to Washington, D.C. Herma Baggley was also coauthor, with W. B. McDougall, of *Plants of Yellowstone National Park*, published by the government in 1936.³¹

²⁷Ansel F. Hall, "The Educational Development of Yosemite National Park," *Sierra Club Bulletin* 9 (1923): 413-16; Hall, "Educational Activities in National Parks," in *First Pan-Pacific Conference on Education, Rehabilitation, Reclamation and Recreation* (Washington: GPO, 1927), pp. 435-38; Hall, "Report of the Educational Division," in *Annual Report for 1929; Annual Report for 1924*; National Park Service, "History of the Educational Movement in the National Park Service"; Russell, "The Place of the Museum in the Yosemite Educational Program"; Russell, *One Hundred Years in Yosemite*, pp. 140-41, 144; Bryant and Atwood, *Research and Education in the National Parks*; Burns, *Field Manual for Museums*, p. 5; *Yosemite Nature Notes* 39 (July 1960); Personal communication, Yosemite National Park to author, September 3, 1975.

²⁸*Annual Report for 1926*; Burns, *Field Manual for Museums*, pp. 5-6; Russell, *One Hundred Years in Yosemite*, pp. 141-42; Personal communication, Steve Medley to author, October 10, 1975.

²⁹Bryant and Atwood, *Research and Education in the National Parks*; Burns, *Field Manual for Museums*, p. 6; Russell, *One Hundred Years in Yosemite*, p. 189; National Park Service, "History of the Educational Movement in the National Park System"; Personal communication, Yosemite National Park to author, September 3, 1975.

³⁰Personal communication, Horace M. Albright to author, September 25, 1975, and May 27, 1976; Mary A. Rolfe, *Our National Parks* (Chicago: B. N. Sanborn, 1928); Personal communication, Office of John Townsley, superintendent, Yellowstone National Park, July 7, 1976, including copy of "Tabulation of Uniformed Women Employees of the National Park Service Who Have Served in Yellowstone National Park"; Personal communication, William L. Arnold to author, June 3, 1976.

³¹Personal communication, George F. Baggley to author, May 16, 1976.



Top: Jane Marguerite ("Peg") Lindsley Arnold, first woman year-round park ranger of the National Park Service, here photographed in Yellowstone National Park about 1928. Bottom: Herma Albertson Bagglely was the first woman year-round naturalist of the National Park Service. When photographed in 1929, she was a seasonal ranger-naturalist at Yellowstone and not yet married to George Bagglely.

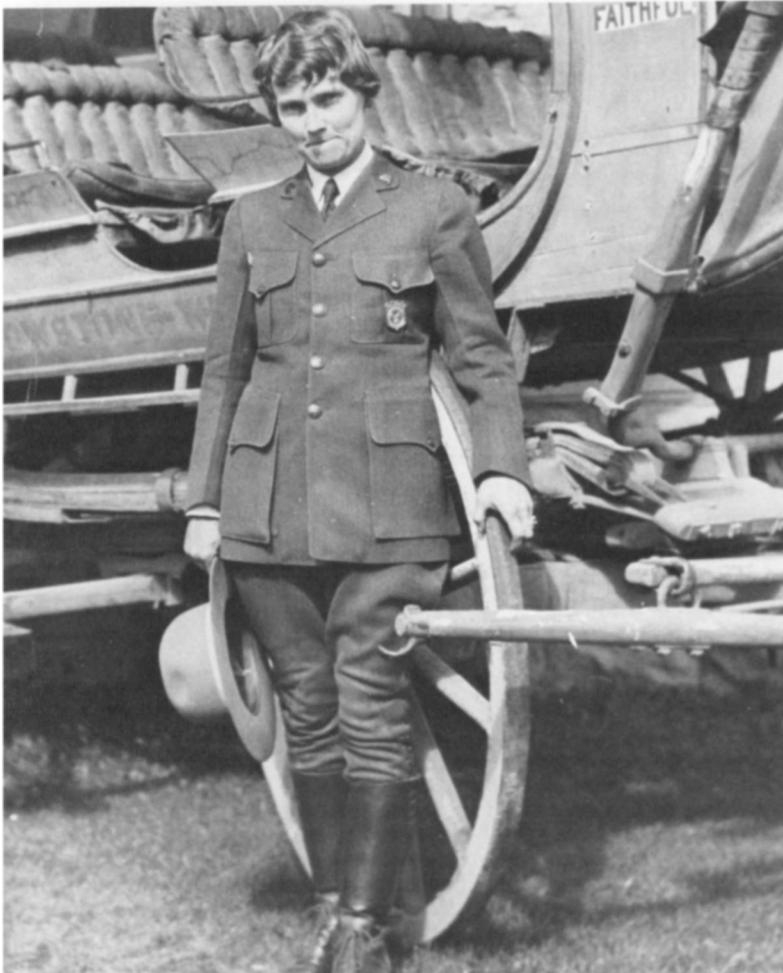
The contributions of Enid Michael to the Yosemite interpretive program are also of particular note. Following her initial summer in 1920 as a voluntary assistant in the nature guide program conducted by Miller and Bryant, she began a period of seasonal employment as a ranger-naturalist in Yosemite that continued through the summer of 1943. She was an excellent botanist and, throughout that time, was one of Yosemite's more knowledgeable interpreters.³²

Other women were employed as seasonal park rangers and ranger-naturalists, both in Yellowstone and in several other national parks during the late 1920s and early 1930s. For example, Dr. Margaret Fuller Boos, a geologist, was a ranger-naturalist in Rocky Mountain National Park during the summers of 1928 and 1929. Pauline Mead Patraw held a similar position in Grand Canyon National Park from 1929 to 1931.³³

OTHER EARLY SEASONAL INTERPRETIVE PERSONNEL

Before 1930 few national parks employed year-round park naturalists. In most areas interpretive activities were initiated and carried out by seasonal park rangers or ranger-naturalists.

In 1921 Charles Landes, a high school biology teacher in Seattle, began his memorable career of nearly twenty years as a seasonal park ranger and ranger-naturalist in Mount Rainier National Park.³⁴ In Yellowstone National Park notable interpreters of the 1920s who served as seasonal park rangers or ranger-naturalists included Dr. Frank Thone, Dr. H. S. Conard, Dr. Harvey Stork, Dr. Gerald E. Marsh, and W. J. Cribbs. During several summers Thone and Conard were essentially in charge of the Yellowstone interpretive program. From 1925 to 1929 J. E. Haynes, the Yellowstone enthusiast and photographer noted earlier, was placed in charge



³²Bryant, "Yosemite Free Nature Guide Service"; Hall, "The Educational Development of Yosemite National Park"; Personal communication, Yosemite National Park to author, September 3, 1975.

³³Musselmann, *Rocky Mountain National Park*, p. 153; Personal communication, Pauline Mead Patraw to author, June 17, 1976.

³⁴McIntyre, "Short History of Mount Rainier National Park."

of the Yellowstone museum program by Superintendent Albright.³⁵

In Rocky Mountain National Park, official Park Service interpretation began in 1921 when an information office was established at park headquarters with local guide Clifford Higby in charge. J. M. Johnson, well-known naturalist, was employed during the summer of 1923. He organized lectures at hotels and also field trips. Johnson was assisted by Charles H. Hutchings who was adept in imitating bird calls. In 1924 and 1925 Perley A. Smoll was employed as park naturalist on a seasonal basis. He continued the schedule of lectures and field trips, wrote articles for the local newspaper *Estes Park Trail*, maintained a wildflower display, and, with Superintendent Roger Toll, gave illustrated talks on Rocky Mountain National Park to groups in nearby towns.³⁶

In Glacier National Park a local naturalist, M. P. Somes, initiated a nature-guide service in the summer of 1921. Under a National Park Service permit, he levied a charge for the service. This was discontinued in August 1922, however, following establishment of a free nature-guide program by Professors Elrod, Severey, and Fredall of Montana State College; the free program continued through the summer of 1928.³⁷

Interpretive service was initiated in Sequoia National Park in 1922 by U. S. Commissioner Walter Fry. Judge Fry's interest stemmed from long association with that area; he had served as park ranger, chief ranger, and park superintendent from 1905 to 1920. In 1922 he began issuing mimeographed nature bulletins, and he developed a natural history display in the park headquarters office at Giant Forest. The following year Fry established a "tent museum" and conducted nature walks with the assistance of Alfred C. Kobs and Norman F. Sissons, members of Friends of Our Parks, who were camping at Giant Forest that summer.³⁸

Interpretive efforts were also begun in Grand Canyon National Park in 1922 when an "information room," containing photos, natural history exhibits, and a reference library, was opened to the public. Funds for that development had been pro-

vided by members of a tour party, sponsored by the *Brooklyn Daily Eagle*, that had visited the Grand Canyon in 1919. In 1923 and 1924 I. I. Harrison, then chief clerk of Grand Canyon National Park, gave natural history talks at El Tovar Hotel.³⁹

Angus M. Woodbury initiated interpretive activities in Zion National Park in the summer of 1925. Initially employed as a seasonal ranger-naturalist, he was later designated as the first park naturalist of Zion. Woodbury continued to work seasonally, however, spending most of the year teaching at nearby Dixie College and in graduate studies at the University of Utah. In 1933 Woodbury was succeeded by Clifford C. Presnall, who came from Yosemite to take over the park naturalist position in Zion on a year-round basis.⁴⁰

Also in 1925, the first interpretive lectures in Crater Lake National Park were given by Fred H. Kiser, official park photographer. He used his personal equipment and slide collection in these programs held in the Community Building. Official National Park Service interpretive programs at Crater Lake began during the following summer. Through the efforts of Ansel F. Hall, chief naturalist of the Park Service, Dr. Loye Holmes Miller of UCLA was employed as a ranger-naturalist. He conducted nature-guide trips and gave lectures, assisted by his son Alden Miller and two student volunteers, Marion Lawson and Ruth Randal. Miller was succeeded in 1929 by Earl U. Homuth, a high school biology teacher from San Diego, who began work at Crater Lake as a seasonal park naturalist.⁴¹

Interpretive programs were begun in several other national parks in 1929. B. E. Jamison, a biology teacher, developed a natural history display in the headquarters office of General Grant National Park (incorporated into Kings Canyon National Park in 1940) and began nature-guided trips as well. Park rangers initiated nature walks in Bryce Canyon National Park, and, in Hawaii National Park, Otto Degener, a botany professor at the University of Hawaii, delivered the first interpretive lectures on biological interests of the area.⁴²

Yellowstone National Park had many changes in naturalist personnel during the 1920s. Milton P.

³⁵*Annual Report for 1923*; Russell, "Scientific Investigations in Yellowstone National Park"; Personal communication, Horace M. Albright to author, September 25, 1975.

³⁶Musselmann, *Rocky Mountain National Park*, pp. 149-51.

³⁷*Annual Report for 1922*; Bryant, *Nature Guiding*; Bryant and Atwood, *Research and Education in the National Parks*; Donald H. Robinson and Maynard C. Bowers, *Through the Years in Glacier National Park: An Administrative History* (West Glacier, Montana: Glacier Natural History Association, 1960).

³⁸*Annual Report for 1922*; Sequoia National Park, "Fact File," data from Janet Krambrink to author, May 10, 1976.

³⁹*Annual Reports for 1922 and 1924*; Personal communication, Michael Harrison to author, August 12, 1976.

⁴⁰*Annual Report for 1925*; Letter, Angus M. Woodbury to Dr. Oastler, September 19, 1929, included in "Individual Reports of Members of the Committee on Educational Problems in National Parks, Together with Minutes of Early Meetings of Committee," copy in possession of author; Personal communication, Clifford C. Presnall to author, July 28, 1976.

⁴¹*Annual Reports for 1925, 1926, and 1929*; Russell, *One Hundred Years in Yosemite*, pp. 138-40.

⁴²*Annual Report for 1929*.



Spruce Tree House, Mesa Verde National Park, 1907.

Skinner resigned as park naturalist at the end of the 1922 season, and interpretive work was supervised by Dr. Frank Thone during the following summer. In 1924 Skinner was formally succeeded by Edmund J. Sawyer as Yellowstone's park naturalist. Sawyer, a wildlife artist and writer, confined his efforts largely to development of the park museum and improvement of *Yellowstone Nature Notes*. Lectures, field trips, and other interpretive activities were placed in the charge of experienced seasonal ranger-naturalists.⁴³ Sawyer resigned late in 1927 and was replaced as park naturalist by Dorr G. Yeager in 1928. Yeager had previous experience in both Yellowstone and Yosemite, and, with his appointment, the Yellowstone interpretive program entered on a period of better organization.⁴⁴

At Mount Rainier Floyd W. Schmoie began serving as year-round park naturalist in 1924. He had worked there for several years as a Rainier National Park Company guide and park ranger. Following Schmoie's resignation as park naturalist in August 1928, C. Frank Brockman was named as his successor. Brockman had voluntarily assisted in the Mount Rainier interpretive program during the summer of 1928 while employed as a seasonal park ranger.⁴⁵

Grand Canyon National Park's first year-round naturalist, Glen Sturdevant, took his post in May 1925. Following Sturdevant's tragic drowning in 1929, Edwin D. McKee was named park naturalist. McKee had worked on a Carnegie Institution geological research project in Grand Canyon in 1927

and 1928, and he had previous park experience in Yellowstone in 1923 with the Bureau of Fisheries.⁴⁶

There were still other important personnel changes in 1929. Carl P. Russell was named field naturalist of the National Park Service and given primary responsibility for expanding the museum program in Yellowstone. Russell's former position as park naturalist in Yosemite was filled by C. A. Harwell, who had been a seasonal ranger-naturalist in that park. Year-round park naturalist positions were authorized for Glacier and Sequoia national parks in 1929. These were filled by Dr. George C. Ruhle and Frank Been in Glacier and Sequoia, respectively. Ruhle had previously worked as a seasonal ranger-naturalist in Yellowstone and Yosemite. Been was park forester at Sequoia and for a time occupied both positions.⁴⁷

OTHER EARLY INTERPRETIVE ACTIVITIES

In addition to changes in and expansion of National Park Service interpretive personnel, a number of other significant developments characterized the 1920s. In Mesa Verde, for example, interpretation got a boost at the highest administrative level when Jesse L. Nusbaum was named park superintendent in 1921. Nusbaum was an archeologist who had excavated in that area, and he immediately revitalized interpretive activities which had typified the park since 1908, albeit in a somewhat disjointed and unprofessional manner. Nusbaum employed persons, usually students, with archeological backgrounds as seasonal park rangers to conduct visitors to the cliff dwellings. He also had a campfire circle constructed and initiated interpretive talks on the park as a regular feature during the summer seasons. J. W. Fewkes, who was still excavating in the park and who had occasionally given such talks in former years, often officiated, together with Superintendent Nusbaum, at these regular interpretive lectures. As noted earlier, the initial log museum was improved, and funds were raised for a more adequate structure during this same period.⁴⁸

Two events of particular significance occurred in 1925. First, Dr. Harold C. Bryant established the Yosemite School of Field Natural History. This field school, designed as a training center for qualified individuals with varied scientific backgrounds, provided many early seasonal and year-round nat-

⁴³Russell, "Scientific Investigations in Yellowstone National Park"; Personal communications, Horace M. Albright to author, September 25, 1975, and Dorr G. Yeager to author, September 28, 1975.

⁴⁴Russell, "Scientific Investigations in Yellowstone National Park"; Burns, *Field Manual for Museums*, p. 9; Personal communication, Dorr G. Yeager to author, September 28, 1975.

⁴⁵Brockman, *Story of Mount Rainier National Park*; McIntyre, "Short History of Mount Rainier National Park."

⁴⁶*Grand Canyon National Park Nature Notes*, vol. 3, no. 8 (1929); Personal communication, Edwin D. McKee to author, September 16, 1975.

⁴⁷*Annual Report for 1929*; Russell, *One Hundred Years in Yosemite*, p. 144; Personal communication, Yosemite National Park to author, September 3, 1975.

⁴⁸Howard, "Mesa Verde"; Torres-Reyes, *Mesa Verde National Park*, p. 191.



1. *Edmund J. Sawyer*
Courtesy of Laurance Sawyer



2. *Walter Fry*
Sequoia National Park



3. *Harold C. Bryant*
Yosemite National Park



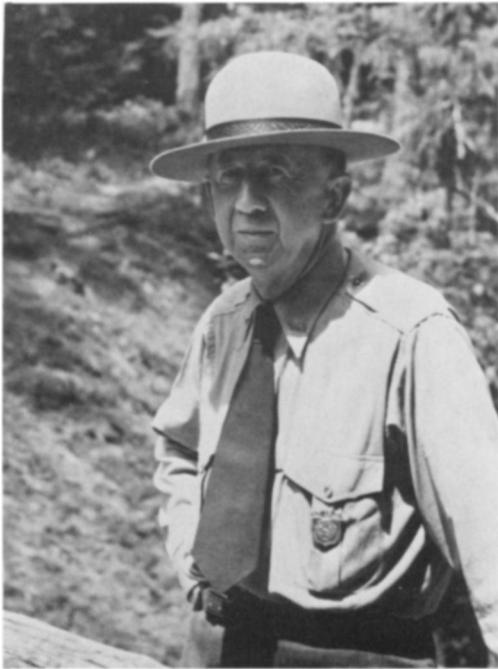
4. *Forrest S. Townsley*
National Park Service



5. *Floyd W. Schmoe*
Courtesy of Floyd W. Schmoe



6. *George C. Ruhle*
Courtesy of George C. Ruhle



7. Charles Landes
Courtesy of Richard Landes

1) Edmund J. Sawyer, park naturalist at Yellowstone, 1924-1928. 2) Walter Fry was associated with Sequoia National Park for many years—as park ranger, 1901-1910, chief park ranger, 1910-1914, superintendent, 1914-1920, and commissioner, 1920-1941. Fry began interpretive activities in 1922. 3) Harold C. Bryant, here examining flowers, initiated interpretive activities in Yosemite in 1920. 4) Forrest S. Townsley, pictured here while chief ranger of Yosemite in the 1930s, prepared and exhibited mounted birds and mammals in the Yosemite Ranger Office in 1915; this display was a forerunner of the original Yosemite Museum. 5) Floyd W. Schmoie, park naturalist at Mount Rainier, 1924-1928. 6) George C. Ruhle became the first year-round park naturalist at Glacier National Park in 1929. This photograph was taken a year earlier while he served as a seasonal ranger-naturalist at Yellowstone. 7) Charles Landes served for two decades at Mount Rainier as a seasonal park ranger and ranger-naturalist and contributed to the development of interpretation in that park.

uralists with their introduction to interpretive skills. It continued in operation each summer, except during World War II, until 1953.⁴⁹

Second, the Eighth National Park Conference was held October 1-5, 1925, in Mesa Verde National Park. It was a milestone in National Park Service interpretation. In addition to superintendents and other officials, Chief Naturalist Ansel F. Hall (who had a major hand in developing the agenda), together with park naturalists Carl P. Russell of Yosemite and Floyd Schmoie of Mount Rainier, attended. A major share of time at this meeting was devoted to discussing necessary improvements in interpretive efforts, and Director Mather's personal interest in these matters was underlined in several strong statements. He noted that the secretary of the interior insisted that the public be made fully aware of the educational value of the national parks. He also indicated his firm support for the educational plan, prepared by Chief Naturalist Hall and Dr. Frank Oastler (then unofficial Park Service cooperator), which was formally presented at this meeting. Director Mather left no doubt as to his intentions when he stated: "The educational division has been sort of a stepchild. . . . It starts out

now as a definite division just as much as the landscape and engineering divisions, and I want all superintendents to recognize that fully."⁵⁰

The momentum of interest in educational values prompted the secretary of the interior by 1928 to name a committee of prominent scientists and educators to study and report on the educational possibilities inherent in the national parks. This committee consisted of Dr. John C. Merriam (chairman), Dr. Herman C. Bumpus, Dr. Frank Oastler, Vernon Kellogg, and Dr. Harold C. Bryant. This committee's recommendations, submitted the following year, included establishment of an educational advisory board to counsel the director of the Park Service on educational policy and developments. It also recommended the establishment of a major educational unit within the National Park Service to be supervised by high-level personnel on the director's staff in Washington, D. C. The secretary of the interior established the Educational Advisory Board in March 1929, and it included Merriam, Bumpus, and Oastler (members of the original committee), together with Dr. Wallace W. Atwood, Dr. Clark Wissler, and Isaiah Bowman. Members of the Educational Advisory Board made numerous studies throughout the national park system in 1929 and 1930 and materially aided in development of the interpretive program in later years.⁵¹

⁴⁹Bryant, *Nature Guiding*; Bryant and Atwood, *Research and Education in the National Parks*; Russell, *One Hundred Years in Yosemite*, pp. 143-44; *Yosemite Nature Notes* 39 (July 1960); Personal communication, Steve Medley to author, October 10, 1975.

⁵⁰National Park Service, "Minutes of the Eighth National Park Conference Held in Mesa Verde National Park, Colorado, October 1-5, Inclusive" (mimeo.); Personal communication, Horace M. Albright to author, May 27, 1976.

⁵¹Bryant was not included because of his anticipated appointment to head up the Park Service's Branch of Research and Education. Bryant and Atwood, *Research and Education in the National Parks*.



Grand Canyon National Park

Left: Park visitors listen to a lecture on the geology of the Grand Canyon on the parapet of the Yavapi Observation Station-Museum, 1948. The exterior of this structure is shown in the bottom photograph, made by the author in 1938. It was completed in 1930 through a grant from the Laura Spelman Rockefeller Memorial. Below: In 1935 the author photographed the interior of the museum at Longmire in Mount Rainier National Park.

Another feature of interpretive programs initiated in some national parks during the 1920s was the regular publication of what were generally known as "nature notes." Earliest of these was *Yosemite Nature Notes*, first issued in mimeographed form in 1922 but upgraded to a printed publication in 1925. *Yosemite Nature Notes* was published monthly until its discontinuance in 1961.⁵² Other national parks which issued mimeographed nature notes on a regular basis were Yellowstone, beginning in 1924 (with expansion of the original, posted, natural history bulletins initiated in 1920); Mount Rainier, 1924; and Grand Canyon, 1926. Nature notes were published during summer months in Zion, Crater Lake, and Rocky Mountain national parks, beginning in 1928, until year-round park naturalists were appointed to those parks. They also appeared during the summer and intermittently in Glacier National Park, beginning in 1929. During the 1930s a number of other national parks issued similar mimeographed publications.⁵³ Nature notes from some of the national parks were well done; they were distributed free to schools, the press, and to individuals with special national park interests. In their day, nature notes served a useful purpose in informing the public of interpretive activities in the respective parks.

Museums increasingly played larger roles in national park interpretive programs. Public interest in the newly opened museums in Mesa Verde (1925) and Yosemite (1926) underlined the need for ade-



⁵²*Ibid.*; Personal communication, Steve Medley to author, October 10, 1975.

⁵³National Park Service, "A Bibliography of National Parks and Monuments West of the Mississippi River," Berkeley, Western Museum Laboratories, 1941 (mimeo.).

quate museums in other parks. Director Mather emphasized in 1924 that, except for a small adobe structure at Casa Grande National Monument built for the nominal sum of \$1,200, the federal government had not provided funds for national park museums. His annual report indicated official appreciation of private donations responsible for museums at Mesa Verde and Yosemite, but it also noted the inadequacy of museum facilities in most national parks.⁵⁴ Despite his continued pleas for federal funds for park museums, they did not materialize until the 1930s.

Private gifts helped in the meantime. For example, a grant from the Laura Spelman Rockefeller Memorial in 1926 allowed development of the Yavapi Observation Station-Museum in Grand Canyon National Park; it was completed in 1930. In 1928 the same donor provided a third grant (\$100,000 plus \$6,000 for committee expenses) for development of a system of four focal-point museums in Yellowstone National Park (Old Faithful, Norris Geyser Basin, Madison Junction, and Fishing Bridge), together with improvement of the headquarters museum at Mammoth; that large project was completed in 1932. Lassen Volcanic National Park obtained the Loomis Memorial Museum, plus forty acres of land, by donation from Mr. and Mrs. B. F. Loomis in 1929. That structure had been built by the Loomis family two years earlier.⁵⁵

Other national parks were left largely on their own, insofar as museums were concerned. Temporary museums were developed in such less-favored areas in whatever facilities were available, however makeshift and inadequate. Tents were used for museum purposes during summer months in Sequoia and other national parks. Sometimes displays were installed in park headquarters buildings, ranger stations, or community buildings. On completion of a new park administration building at Mount Rainier in 1928, the old dilapidated administration building (erected in 1916) was turned over to the park naturalist for use as a museum and naturalist headquarters instead of being demolished as originally planned.⁵⁶ Its development as a museum, greatly improved in later years, was intended as a temporary expedient, but a half century later it is still serving museum purposes. The Park Service has designated it a historical structure and intends to retain it as an example of a pioneer museum. Some of the initial exhibits are still in existence. Continued public interest in its exhibits serves as a

strong argument for simplicity in presentation of national parks interests.

FIRST PARK NATURALIST CONFERENCE

A most noteworthy event was the First Park Naturalist Conference, held in November 1929 on the campus of the University of California at Berkeley. Chief Naturalist Ansel F. Hall called this conference and directed the discussions and examination of National Park Service interpretive goals. In addition to Hall and Field Naturalist Carl P. Russell, all six year-round park naturalists at that time were in attendance. They were Dorr G. Yeager of Yellowstone, C. A. Harwell of Yosemite, Edwin D. McKee of Grand Canyon, Dr. George C. Ruhl of Glacier, Frank Been of Sequoia, and C. Frank Brockman of Mount Rainier. Also in attendance were George L. Collins, assistant to the superintendent of Lassen Volcanic National Park; George M. Wright and Joseph Dixon of the recently established, privately financed (by Wright), wildlife research program for the national parks; John D. Coffman, National Park Service fire control expert (later chief forester); and George M. Grant, Na-



Attending the First Park Naturalist Conference at the University of California, Berkeley, in November 1929 were: (front row, left to right) Dorr G. Yeager, park naturalist, Yellowstone; Carl P. Russell, field naturalist of the NPS; Ansel F. Hall, chief naturalist of the NPS; C. A. ("Bert") Harwell, park naturalist, Yosemite; (back row, left to right) C. Frank Brockman, park naturalist, Mount Rainier; John D. Coffman, NPS fire control expert; Frank Been, park naturalist, Sequoia; and Edwin D. McKee, park naturalist, Grand Canyon.

⁵⁴Annual Report for 1924.

⁵⁵Burns, *Field Manual for Museums*, pp. 8-10; *Annual Report for 1929*; Personal communication, Lassen Volcanic National Park to author, March 30, 1976.

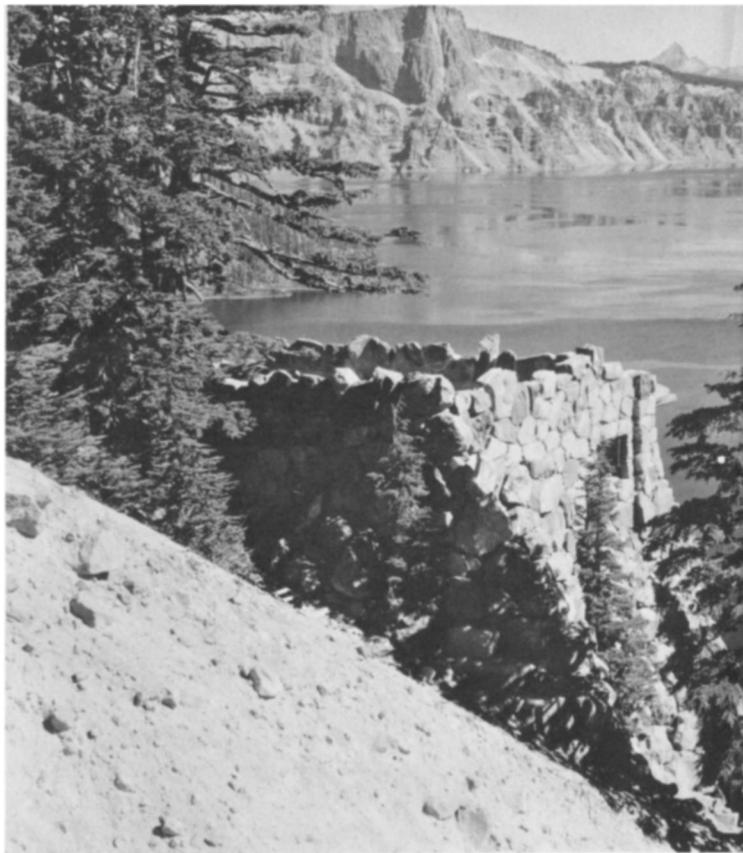
⁵⁶*Mount Rainier National Park Nature Notes* 6 (November 1928).

tional Park Service photographer. Many local professors, researchers, museum technicians, and others interested in interpretation attended the conference. It was a valuable forum for the exchange of ideas concerning interpretation, and many seeds sown in Berkeley germinated during the eleven years that elapsed before the Second Park Naturalist Conference.⁵⁷

SIGNIFICANT EVENTS OF THE 1930s

The National Park Service interpretive program was greatly expanded and witnessed many organizational changes during the next decade. Even before the close of 1929, for example, additional year-round park naturalist positions were authorized for Mesa Verde, Zion-Bryce Canyon, Crater Lake, Rocky Mountain, Lassen Volcanic, and Hawaii national parks, as well as for Southwestern National Monuments. The first year-round park naturalists appointed to those areas were Paul Franke (Mesa Verde, 1929), Angus M. Woodbury (Zion-Bryce Canyon, 1929), Robert Rose (Southwestern National Monuments, 1930), Donald Libby (Crater Lake, 1931), John E. Doerr (Hawaii, 1931), and Dorr G. Yeager (Rocky Mountain, 1931, by transfer from Yellowstone; Yeager was succeeded in Yellowstone by Dr. C. Max Bauer in 1932). The position of park naturalist in Lassen Volcanic National Park was not permanently filled until 1933 when Carl R. Swartzlow was appointed.⁵⁸ Later in the decade interpretive activities were started in many other national parks and monuments. Moreover, both seasonal and, in some of the larger parks, year-round interpretive staffs were expanded.⁵⁹

At the national level interpretive efforts were advanced when, in 1930, the Branch of Research and Education was established in Washington, D. C., with Dr. Harold C. Bryant in charge as assistant director of the National Park Service. This new unit in the organization, later subjected to various changes in character and responsibilities, initially included Wallace W. Atwood, Jr., a geologist, as Bryant's assistant. Historian Verne E. Chatelaine was added to the staff of the Branch of Research and Education one year later. This was the initial step in the eventual formation of a sep-



Sinnott Memorial Observation Station-Museum at Crater

arate Branch of Historic Sites and Buildings in 1935 to administer interpretation of historic areas of the park system.⁶⁰

Special education for interpreters was another development of the 1930s. Beginning with the 1935-1936 academic year, the first of several scholarships was awarded by the Adult Education Association and Yale University to a National Park Service employee for special study at Yale. C. Frank Brockman, park naturalist at Mount Rainier, was the initial recipient. Other interpreters to benefit from this program in later years included Dale S. King, Malcolm Gardner, Henry Lix, William Kearns, Merrill Mattes, Russell Grater, Edwin D. McKee, George C. Ruhle, and Barner Bates.⁶¹

New features in interpretation were also introduced. The Indian Demonstration and the Junior Nature School were initiated in Yosemite National Park in 1930. Following experiments in Yosemite and Mesa Verde during the summer of 1929, guided auto caravans were also introduced into Yellowstone, Grand Canyon, and Sequoia national parks.⁶²

⁵⁷National Park Service, "Proceedings of the First Park Naturalist Conference, Berkeley, November 1929" (mimeo.).

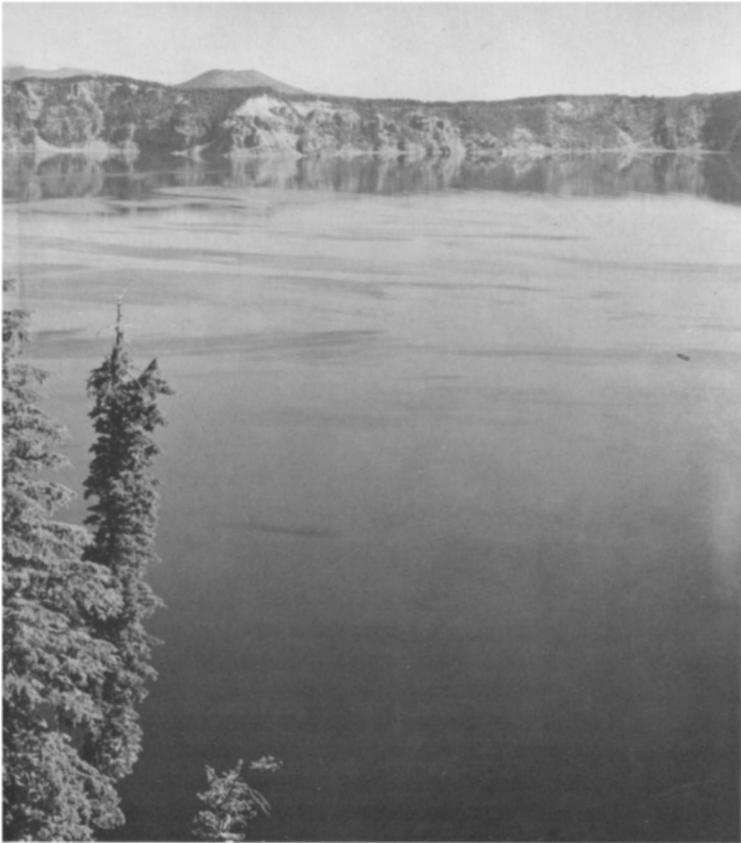
⁵⁸*Annual Reports* for 1930 and 1931; Personal communications to the author, Dorr G. Yeager, September 8, 1975; Mesa Verde National Park, March 11, 1976; Lassen Volcanic National Park, March 30, 1976; Clifford C. Presnall, July 28, 1976; Carl R. Swartzlow, August 20, 1976; Mrs. John E. Doerr, August 23, 1976.

⁵⁹This is evidenced in part by the attendance list for the Second Park Naturalist Conference; see fn. 71.

⁶⁰Bryant and Atwood, *Research and Education in the National Parks; Annual Reports* for 1930 and 1931; National Park Service, "History of the Educational Movement in the National Park System."

⁶¹Burns, *Field Manual for Museums*, p. 21.

⁶²*Annual Report* for 1930.



National Park Service

Lake National Park, photographed in 1931.

These motorized trips were popular interpretive features in areas where road systems made them feasible until increasing highway congestion forced their discontinuance.

Yet another new device for educating the public concerning national parks interests was reflected in the exhibit at the Century of Progress Exposition in Chicago in 1933 and 1934. The exhibit consisted of a large diorama of Mount Rainier, featuring the Nisqually Glacier in actual ice (preparation supervised by Earl Trager, who had succeeded Wallace W. Atwood, Jr., as assistant to Dr. Bryant), together with several smaller dioramas of other national parks. These were prepared by selected park naturalists on temporary assignment to Field Naturalist Headquarters in Berkeley during the winter of 1932. The Chicago exhibit was an experiment in taking the parks to the people.⁶³

The radio was another educational medium. In 1938 H. Raymond Gregg, park naturalist of Rocky Mountain National Park, initiated a children's nature-education radio program. The program originated at radio station KOA in Denver and was broadcast on the NBC Red Network through the summer of 1942 under the title "Nature Sketches." It attracted wide public interest.⁶⁴

⁶³Personal recollection.

Many national parks also formed natural history or museum associations by the end of the 1930s, following the example set by Yosemite in 1921. The legality of these associations came into question in 1936, but they were cleared when an official investigation revealed the great value of these non-profit organizations to National Park Service interpretive programs. The Interior Department Appropriation Act for fiscal year 1937 (approved in June 1936) thus contained a special provision legalizing the operation of these associations.⁶⁵

Development of the National Park Service museum program was of special significance during the 1930s; that decade included the first major examples of federal funding of museum construction in national parks. In May 1930, for example, Congress approved funds for construction of the Sinnott Memorial in Crater Lake National Park to honor the late Nicholas J. Sinnott, congressman from Oregon. The memorial, a stone museum-observatory, was constructed on the rim of Crater Lake in the following year. The Carnegie Foundation provided funds for exhibits and equipment. Similarly, an information station-museum was completed in 1931 near the headquarters of Rocky Mountain National Park through Park Service appropriation, together with private funds for exhibits⁶⁶

Most museum development during the 1930s, however, came about as a result of funds and efforts provided by various emergency agencies created to alleviate severe economic conditions during the Great Depression. Agencies such as the Public Works Administration, Civilian Conservation Corps, Works Progress Administration, and National Youth Administration were of particular importance. Many National Park Service areas heretofore lacking museums acquired such facilities; in other areas existing museums were improved or enlarged.⁶⁷ In some cases completion of certain projects resulted in aftereffects beneficial to interpretation. For instance, in the Ohanapecosh section of Mount Rainier National Park, dismantling of a CCC camp upon completion of a campground project in 1939 provided salvageable lumber and other building materials which the CCC utilized in constructing a temporary museum there. It served park visitors until 1964 when replaced by a more elaborate visitor center at Ohanapecosh.⁶⁸

⁶⁴Musselmann, *Rocky Mountain National Park*, p. 155.

⁶⁵Burns, *Field Manual for Museums*, pp. 18-19.

⁶⁶*Ibid.*; Bryant and Atwood, *Research and Education in the National Parks*; Musselmann, *Rocky Mountain National Park*, p. 153.

⁶⁷Burns, *Field Manual for Museums*, pp. 10-12.

⁶⁸Personal recollection and correspondence with Mount Rainier National Park, 1975.

By 1935 the National Park Service established the Museum Division to guide development of the expanded museum program. The first chief of the Museum Division was Carl P. Russell. He was succeeded by Ned J. Burns, as acting chief in 1936 and as chief in 1939, when Russell was given responsibility for the entire interpretive program as supervisor of research and interpretation for the National Park Service. In the interim, preparation of museum exhibits for eastern areas was centralized in Washington, D. C., and for western areas in Berkeley at Field Division of Education headquarters. The name of the latter unit was changed in 1937 to Western Museum Laboratories, and Dorr G. Yeager, former park naturalist of Yellowstone and Rocky Mountain national parks, was placed in charge as assistant chief of the Museum Division.⁶⁹

The Western Museum Laboratories were of particular importance to areas with inadequate museum facilities and lack of funds for their improvement. During the 1930s the staff in Berkeley numbered about two hundred people of varied technical abilities and employed through different emergency organizations. In addition to planning and preparing museum exhibits, the Berkeley staff provided a wide variety of other services, either free or at nominal cost.⁷⁰

The Great Depression was clearly important in developing greater public interest in national park interpretive activities. Simple, inexpensive pleasures and activities, often ignored by visitors in earlier, more affluent times, became more highly regarded. Accordingly, interpretive personnel, both seasonal and year-round, was greatly expanded by the end of the decade, and interpretation was more generally recognized as an important aspect of National Park Service administration. Many employees of various emergency agencies were highly qualified specialists who might not have been attracted to the National Park Service in more normal times; some continued their careers in the Park Service after the Depression. It was during the latter part of this period, moreover, that the word *interpretation* was officially recognized as being more descriptive of the work of park naturalists, archeologists, and historians than was *educational*, *naturalist*, or *nature guide department*.

SECOND PARK NATURALIST CONFERENCE (AND LATER)

Some idea of the progress during the 1930s can be obtained by comparing the proceedings of the First Park Naturalist Conference at Berkeley in

1929 with those of the Second Park Naturalist Conference, held November 13-17, 1940, at Grand Canyon National Park. Attendance at the second conference included Dr. Carl P. Russell, supervisor of the Branch of Research and Interpretation; Howard E. Rothrock, assistant chief of the Naturalist Division; Ned J. Burns and Dorr G. Yeager, respectively chief and assistant chief of the Museum Division; and twenty-seven naturalists of various grades representing most of the major natural areas administered by the National Park Service.⁷¹ Visitors during the conference, including Park Service administrators and representatives from other departments, also contributed to the discussions. The proceedings bear witness to the enlarged programs and growing commitment to interpretation that materialized during the 1930s.

During the World War II years, interpretive services, like all other National Park Service activities, were greatly curtailed and in some areas completely eliminated. Many individuals of the interpretive staff, both seasonal and year-round, served in various branches of the armed forces. But with the cessation of hostilities in 1945, National Park Service interpretive activities were soon reactivated and expanded.

Today visitors to National Park Service areas are well aware of the value of available interpretive services. They recognize that such services aid in understanding the significant park attractions and, thus, enhance the enjoyment and lasting value of park visits. Displays and exhibits in museums and visitor centers, guided trips afield, self-guiding nature trails, illustrated programs and evening campfire talks, and many relevant publications are

⁷¹National Park Service, "Proceedings of the Second Park Naturalist Conference, Grand Canyon National Park, November 11-17, 1940" (mimeo.). Naturalists of various grades from national parks were C. Max Bauer and David Condon from Yellowstone, Matthew E. Beatty from Yosemite, Edwin D. McKee and Louis Shellbach from Grand Canyon, C. Frank Brockman from Mount Rainier, F. R. Oberhansley from Sequoia, Donald C. Watson from Mesa Verde, Gunnar O. Fagerlund from Hawaii, Arthur Stupka from Great Smoky Mountains, Carl R. Swartzlow from Lassen Volcanic, Myrl V. Walker from Crater Lake, Bennett T. Gale from Grand Teton, Maurice Sullivan from Acadia, Russell K. Grater from Zion-Bryce, H. Raymond Gregg from Rocky Mountain, and Henry Lix from Hot Springs. The National Capital Parks were represented by Donald E. McHenry. National monuments were represented by Dale S. King and Natt N. Dodge from Southwestern National Monuments, Howard Stagner and Carl E. Jepson from Petrified Forest, Wilbur Doudna from Death Valley, Earl Jackson from Montezuma Castle, and David S. Jones from Wuputki. Robert H. Rose and Albert E. Long represented Boulder Dam National Recreational Area. The only major park not represented was Glacier; Park Naturalist George C. Ruhle was on special assignment at that time and unable to attend.

⁶⁹Burns, *Field Manual for Museums*, pp. 12-15.

⁷⁰*Ibid.*

eagerly sought out. All National Park Service personnel are involved in this effort in varying degrees—not simply those specifically charged with such responsibilities. Interpretation is now generally recognized as a fundamental factor in National Park Service administration and protection. In fact, the Park Service interpretive program has become so successful and of such generally recognized public interest that it has been widely copied by other federal, state, county, municipal, and even private agencies which administer lands of recreational value. Interpretation has also been introduced in many national parks and equivalent reserves throughout the world.⁷²

COMPARISONS: YESTERDAY AND TODAY

Many problems of National Park Service interpreters today stem from too much, rather than too little, public interest. But such was not the case during the formative years of interpretive development. Despite support from the upper echelons of the Park Service, interpretive activities during the early days grew slowly, often to the frustration of many individuals involved at the grass roots level. Facilities and equipment were extremely limited in many national parks—in some cases completely lacking. Working hours were long, and duties often included many time-consuming tasks little related to the primary objectives of interpretation. There were few, if any, readily available sources which provided solutions to problems or guidance in procedure. No college or university offered courses designed particularly for such tasks. Few highly qualified students recognized opportunities in the National Park Service; if they did, they rarely considered year-round appointment as a park naturalist a proper outlet for their hard-won expertise. Park naturalists learned largely by trial and error. Consequently, early interpretive developments were largely rudimentary and often inadequate and disappointing. They were frequently based upon inadequate or fragmented research, hampered by lack of unified objectives or planning, and retarded by minimal financial support other than that which could be generated from private sources. In some instances park naturalists even lacked the full recognition and respect of local administrative personnel, for at that time interest in natural history was often associated with qualities lacking in “hemen.” So it is not often recognized that, in large measure, gradual improvement of the National Park Service interpretive program resulted from the interest, efforts, and ingenuity of early workers who

persisted, often at personal expense and at sacrifice of personal time, despite criticism and even ridicule.

Science had not gained the status typical of recent years, and early Park Service naturalists were often considered to be impractical “scientists.” Conversely, true scientists of that time, though respecting the zeal and dedication of park naturalists, were well aware of their limited scientific backgrounds. So, in a sense, early National Park Service naturalists were neither fish nor fowl. They often lacked the respect of coworkers and had limited status in the true scientific community. Not uncommonly they were referred to by their associates as “nature fakers,” “posy pickers,” or “Sunday supplement scientists.”

In its initial stages the National Park Service interpretive program even lacked a distinctive name truly descriptive of its primary objective. For many years it was officially referred to as the educational, nature-guide, or naturalist department. The designation *interpretation*, though noted early by some individuals and alluded to at the First Park Naturalist Conference in 1929, did not come into general use until the late 1930s. Even at a meeting of the National Parks Educational Advisory Board in 1930, where selection of a distinctive name was considered, the term *interpretation* was overlooked.

Present-day interpreters have opportunities to become far better prepared for their responsibilities than did their pioneer predecessors. Many institutions of higher learning now offer curricula tailored to their needs. They have the advantages of a wealth of source material, adequate financial support, better equipment and facilities, and larger, more experienced staffs. They also have in-service training programs and can benefit from the experience of those who laid the foundations of their chosen field. Most importantly, their work is accorded a greater degree of recognition and support, for few question the value of interpretation as an important aspect of National Park Service administration. And, today especially, their status is supported by broad public interest in ecology and awareness of the need for environmental protection.

But today's interpreters, though favored by many advantages which might be envied by their pioneer counterparts, have problems too—though of a much different nature. The higher regard accorded interpreters has resulted in intense competition among highly qualified candidates for the still relatively few job openings. Moreover, the work of interpreters is now more highly regimented and more tightly bound by red tape. It is also subject to greater exterior control and is more highly compartmentalized. This greatly reduces the degree of personal participation in the total effort and thus limits the degree of personal satisfaction in having a part in all aspects of the job. Or, at least, so it seems to this old-timer. □

⁷²Myron D. Sutton, “Interpretation Around the World,” chap. 27 in Grant W. Sharpe et al., eds., *Interpreting the Environment*.