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National forest lands surrounding Yellowstone, 1991



North Carolina National Forests, 1991



Professor Frank Waugh, Late 1920's



Arthur Carhart, Superior National Forest, 1921



Early logging practices for scenery management.
"A Sunday drive among the giant Redwoods in the Six Rivers National Forest, California, was a popular diversion in 1913."

## **Background and History of Scenery Management**

Objectives of scenery management (or "landscape management") in the national forests in the United States were not specifically stated, but were implied as far back as 1891 when the first forest reserves were established. The first political evidence of concern for management of landscapes may have occurred as early as 1902, when A. A. Anderson, a New York artist and Wyoming rancher, was appointed Special Superintendent of Forest Reserves surrounding Yellowstone National Park.

The Annual Report of the Forester mentioned "beauty" for the first time in 1903. The Forestry Division (predecessor of the U.S. Forest Service) advised a private forest owner in North Carolina to plan a timber harvest so that "the beauty of the forest would not be impaired."

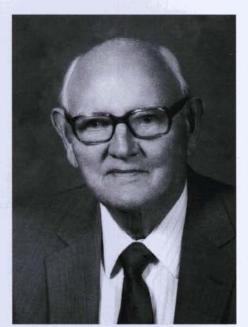
The first known, documented application of landscape management in a national forest occurred in May 1908. The timber marking rules for sugar pine areas in California specified light sanitation and salvage timber-cutting in a 100-foot-wide strip along public highways, lake frontages, and river corridors. Regulations were established to preserve the "scenic values" of these highway corridors, lake front areas, and river corridors.

Following establishment of the National Park Service in 1916, the U.S. Forest Service realized the importance of hiring professionals who specialized in landscape management and recreation site design. In 1916, the Forest Service hired a landscape architecture professor, Frank Waugh, as a consultant and collaborator to study the agency's recreation and scenery values. Waugh paved the way for the hiring of the first full-time landscape architect, Arthur Carhart, in 1919.

From his base in the Rocky Mountain Region, Carhart originated new landscape management concepts at Trapper's Lake, Colorado. He soon shared the idea of wilderness preservation with Aldo Leopold. Carhart developed the first broad Forest Service recreation plans that also recognized scenic values.

From the time of Carhart's resignation at the end of 1922, until the New Deal Era in 1933, landscape management efforts were limited to occasional summer consulting work by Waugh. Massive public works programs in the 1930's prompted the Forest Service to hire a substantial number of site designers with landscape management abilities. These included Harvard graduate D'Arcy Bonnet, who worked under Bob Marshall in the Washington Office and later became Regional Landscape Architect in California.

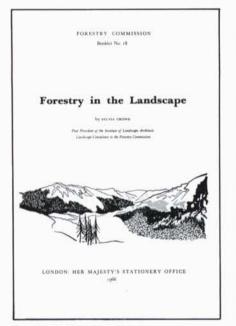
World War II decimated the ranks and roles of these professionals. Until the advent of Operation Outdoors in 1957, application of scenery management was spotty. The few remaining landscape architects were each covering about 20 million acres of national forest lands.



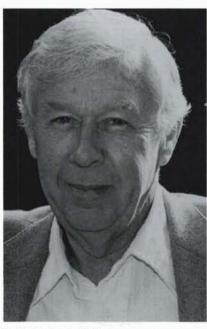
D'Arcy Bonnet, 1988 (Age 82)



Clearcutting in the Olympic National Forest, 1964







R. Burton Litton, 1975



Edward Stone, 1972

The end of the war had brought about not only the need for massive rehabilitation and construction of long neglected recreation and tourism facilities, but increased demand for timber to meet the needs of the country. By the 1960's, it was evident that the national forests were going to play a major role in supplying timber for growing construction demands in this country. It was becoming clear that a collision of public desires for both high-quality scenery *and* timber products was inevitable.

The newly appointed Chief Forester, Ed Cliff, while in Great Britain in 1962, met with Dame Sylvia Crowe. Her work described how large-scale landscape design could mitigate the adverse scenic effects of timber management.

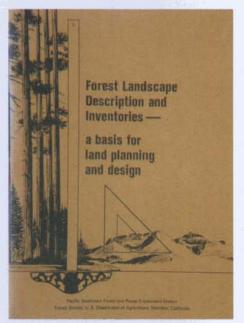
As a result of the interest created by this important meeting in Great Britain, the Forest Service hired a part-time researcher in landscape management, Professor R. Burton Litton, in 1964. By 1965, Forest Service managers could foresee the necessity of clearcutting in national forests. Clearcutting, the most economically efficient silvicultural treatment, was also the most disruptive to scenic quality. Landscape managers in some Forest Service regions began to map near-view and far-view distance zones to differentiate scenic sensitivity for timber harvesting. In a first attempt to apply a systematic approach to landscape management, the Forest Service identified Travel Influence Zones (TIZ) and Water Influence Zones (WIZ).

Also in 1965, the Forest Service employed a landscape management specialist in Washington, DC, in the Chief Forester's Office. Chief Cliff and Recreation Director Dick Costley selected Edward H. Stone II as Chief Landscape Architect. They brought him to Washington from the Rocky Mountain Region to help the agency address the clearcutting dilemma.

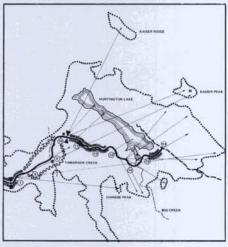
In 1968, Ed Stone presented a slide show to Secretary of Agriculture Orville L. Freeman on a new Forest Service program called "environmental architecture." Also in 1968, the U.S. Department of Agriculture published researcher Litton's booklet *Forest Landscape Description and Inventories*.

That same year, the timber industry proposed a National Timber Supply Bill, calling for an increase of 7 billion board feet per year in Forest Service timber harvesting—one and one-half times the level of timber harvesting at the time. Although this bill failed in Congress because of strong opposition from environmental concern groups, President Richard Nixon later endorsed a Forest Service report that led to the same result as if the bill had passed.

The conflict between scenery management and clearcutting was getting more evident. Stone and Costley, with Chief Cliff's strong backing, set up an environmental architecture workshop in St. Louis, Missouri, in June 1969. That workshop brought together the regional landscape architects and their assistants with key leaders in other Forest Service disciplines. Jerry Coutant, Wayne Iverson, Howard Orr, and researcher Professor R. Burton Litton assisted Ed Stone in the workshop program. This workshop could rightfully be called the birthplace of the Forest Service's official landscape management program.



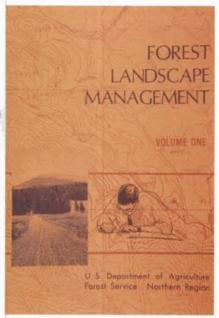
Litton's book



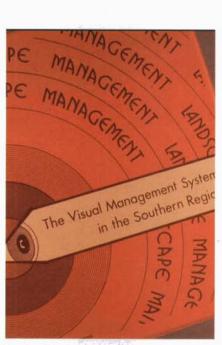
Litton's landscape inventory



Warren Bacon, Southern Region, 1972



Northern Region's book, 1971



Southern Region's book, 1972



Pacific Northwest Region's book, 1972



Warren Bacon, Steve Galliano, and Robert Ross, 1993

Forest Service leaders determined that a systematic process of landscape management was needed. The workshop laid the groundwork for development of the National Forest Landscape Management series of handbooks. Scenery rapidly gained stature in the hierarchy of Forest Service goals for resource planning and commodity/amenity outputs. In 1971, the Forest Service formally recognized scenic quality in the landscape management section of the Forest Service Manual. It documented a system of landscape management responsive to both current and future needs. The Forest Service Manual declared that the "visual landscape" is a basic resource and is to be "treated as an essential part of and receive equal consideration with the other basic resources of the land."

Jerry Coutant and Rai Behnert of the Northern Region and Howard Orr of the Southern Region initially developed separate landscape management systems in 1971. Orr's assistant, Warren Bacon, was transferred to the Pacific Northwest Region where, from 1970 to 1972, he amplified the work of the other three people and combined it with the work of R. Burton Litton into one systematic approach.

The Pacific Southwest Region began utilizing Bacon's system in late 1972. Ed Stone soon adopted it as the Service-wide approach. Stone's decision resulted eventually in the publication *National Forest Landscape Management, Volume 2—Chapter 1, The Visual Management System.* The Forest Service published it in April 1974, almost 5 years after the workshop in St. Louis.

The Forest Service Visual Management System has since gained an international reputation as a basic means of inventorying, planning, and managing scenic resources in wildland settings. Other Federal, State and county agencies have adopted the Visual Management System.

By the early 1980's, Forest Service landscape architects across the Nation had developed seven additional chapters of Volume 2. They had also developed several subsystems, including visual absorption capability, existing visual condition, visual quality index, and visual effect prediction. It was evident that development of these subsystems, along with the advent of new technology and information, was creating a need to update *The Visual Management System*. In response, Chief Landscape Architect Bob Ross arranged for a task force to meet in Milwaukee, Wisconsin in 1984, and in Washington, DC in 1985, to make recommendations regarding feasibility and contents of such an update.

In 1986, the *Report of the President's Commission on America's Outdoors* reported that natural beauty ranked highest among adults as an attribute for a recreation area. This finding reinforced the resolve of Forest Service landscape management specialists to update *The Visual Management System*.

In 1991, Chief Landscape Architect Bob Ross directed Warren Bacon and Steve Galliano to prepare a request for proposals for a contract to update *The Visual Management System*. In October 1991, a contract was awarded to Environmental Consulting, Planning, and Design (ECPD), headed by Lee Roger Anderson. ECPD's team included Lee Anderson, Wayne Iverson, Perry Brown, and others. (See acknowledgements.) This handbook is the product of that contract.



The Visual Management System



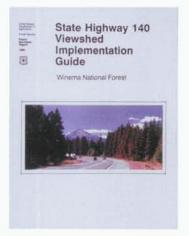
Other handbooks in the landscape management series



Landscape Aesthetics Handbook and The Visual Management System

During the formulation of this handbook, Forest Service landscape architects began to explore possible new names for the "Visual Management System" and the "visual resource management" program. After perusing historical writings of Leopold, Flader, Callicott, and modern writing by Runte regarding land aesthetics, scenery, scenic beauty, ecosystems management, and landscape ecology, the Forest Service decided to drop *The Visual Management System* as a title and to rename it *Landscape Aesthetics: A Handbook for Scenery Management*. This handbook supersedes Agriculture Handbook Number 463, National Forest Landscape Management, Volume 2, Chapter 1, *The Visual Management System* that was issued in April 1974.

## Future of Scenery Management



Highway 140 Viewshed Implementation Guide, 1990

With this wealth of history in scenery management, where is the program likely to go in the future? Land managers and the public are obviously increasingly concerned with landscape aesthetics, scenery management, recreation settings, landscape ecology, and ecosystem management.

In his cover letter entitled "A Vision for the Future" for the *Highway 140 Viewshed Implementation Guide*, written to the employees of the Winema National Forest in Oregon, Anderson looked forward 30 years by looking back 30 years. He cited the legacy of Federal legislation regarding natural resource protection—Multiple Use-Sustained Yield Act (1959), Wilderness Act (1964), Wild and Scenic Rivers Act (1968), National Environmental Policy Act (1970), and others. Plotting a trend in environmental concern and protection, he said, "Where will this line be plotted in the next 30 years, from 1989 to 2019? No one can say for sure, but it is a safe bet that the environmental values of the American public are not likely to drop down to the levels of 1959."

The history of Forest Service scenery management might be summarized as follows:

| 1900–15; | Limited scenery management in timber cutting along primary highways and lakeshores.   |
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| 1915–35: | Scattered efforts to preserve scenery in special places of national significance.   |
| 1935–60: | Scenery management primarily limited to recreation site design.   |
| 1960–70: | Conflict developing between scenic quality and landscape altering activities.   |
| 1970–80: | Development of environmental laws and scenery management systems.   |
| 1980-90: | Forest plan development with scenic quality targets.  |
| 1990's:  | Integration of scenery management, recreation settings,<br>benefits of leisure, landscape ecology, and ecosystem<br>management to guide desired future condition and appearance<br>of National Forest System lands. |

