The day has passed when scenery, natural beauty, and the visual quality of the environment were the concern of only park managers and landscape architects. Most, if not all, resource administrators are being faced today with the challenge of giving increased consideration to these "amenities"—no matter where their resources occur in the regional environment.

Goals and terms are often vaguely defined, but it it is clear that current thinking goes far beyond planning parks and planting flow- ers along the roadside:

[C]onservation must be not just the classic conservation of protection and development, but a creative conservation of restoration and innovation. Its concern is not with nature alone, but with the total relationship between man and the world around him.¹

This general concern is coupled with specific programs that tend to make more and more of the natural resources base increasingly visible, such as those for scenic highways or wild rivers. These trends present the responsibility of considering each resource development in terms of its beneficial or detrimental effect on the surrounding landscape. At the same time, these trends bring the opportunity to demonstrate the roles and purposes of resource use to an increasing number of people.²

It seems that this country is presently undergoing a transition from a concern with proper land use to a concern with proper landscape use. As this transition takes shape in legislative, administrative, and private actions, there will be a need for definitive goals

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—The Editor.

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This paper arises from a cooperative study of the regional landscape being conducted by the Forest Service and the University of California.


and standards, for more objective measures of the visual attributes of natural resources, and for a careful analysis of landscape use.

Some progress in objective analysis of the visual environment has been made on the urban scene. There is also significant attention being given to scenery in the design of highways. In the natural resources field consideration has long been given to the appearance of the land, but in practice visual effects are often overlooked; or, if recognized, visual effects may be disregarded for technical or economic reasons. Moreover, the assumption is frequently made that "good" scenery results more or less automatically from some given practice or land use, such as soil conservation, sustained yield management, or preservation.

We contend that optimum visual results cannot be expected to occur spontaneously, but must be actively considered and pursued. Values accruing to the public that observes the landscape depend upon an interaction between people and the regional resource base; and good management should be based on analyses of both of these variables. We cannot summarize here all of the work in the social and natural sciences that would contribute to a complete analysis, though a comprehensive review is in order. Rather, our purpose here is merely to propose that there are at least four characteristics of the landscape that can be used now as interim measures or criteria—nature, beauty, meaning, and imageability.

A. Nature

This most basic characteristic may be thought of as a continuum between scenes dominated by man's land-use changes and scenes relatively protected from encroachment. There is a need to preserve natural areas for scientific and educational purposes regardless of,
or even in spite of, their visual composition. However, this need should be separated, conceptually at least, from the beliefs, held by many people, that the highest forms of beauty are found in nature. Additionally, nature may need to be preserved for ethical reasons and for her capacity to evoke aesthetic pleasure, but only relatively small parts of the environment can be preserved solely for its obvious or unique natural attributes. Moreover, even if preservation efforts were extended, land area of outstanding natural character is limited. Most of the land about us might be termed “ordinary landscape.” That is, it is relatively undistinguished when visual composition is the test, and it is more or less dominated by man’s activity. For this ordinary landscape it is still possible to apply the general rule of using natural topography and ecological processes as a base for design and management. However, attention should be directed not so much to the problem of man-domination versus nature, but to the point that this domination is too frequently ugly and lacks recognition of visual integrity. This brings us to the second characteristic of the landscape.

B. Beauty

Beauty is an especially relative matter, and even aestheticians have reached no consensus about it. But complexity should not deter a start toward comprehensive consideration of beauty in landscape use. Initially, it would be possible to identify commonly-held concepts of good landscape architecture and land-use. Awards are given for creative architecture and thoughtful design on the urban scene: homes, office buildings, and bridges, for example. Why not search for and recognize creativity and good taste in non-urban land use? There is need for a positive critique of practices in farming, grazing, logging, and watershed management, and of such developments as forest roads, visitor facilities, mines, and power stations.

However, a structure or practice may have aesthetic merit by itself, yet not fit its environment. A building that is termed picturesque in Tirol may be curious and out of place at Lake Tahoe. To solve this problem, one must impugn designs that purport to be something they are not, which do not reflect their true function in the environment, and which detract from a total unified theme. This suggestion arises from the hypothesis that the beauty within nature is due in part to the dynamic equilibrium and integrity of the ecosystem. To the extent that this hypothesis is true, beauty in the ordinary
landscape should also be enhanced by the harmony or interdependence of all parts, whether man-made or natural.

How does one know when a particular change in land-use will become an integral part of the environment? Part of the answer lies in the analysis of visual composition—balance, harmony, unity, contrast, form. Here, resource managers must draw upon the professional competence of those skilled in the use of these concepts. We should encourage current trends in structural and landscape architecture that would broaden their concepts of architectural space.6

The answer to how a particular land-use change will affect the total scene also depends upon the meanings and functions of the land in question.

C. Meaning

Like the other characteristics under discussion, meaning depends on both the viewer’s predispositions and the way in which the environment is presented to him.7 Thus, to increase understanding of how parts of the environment relate to each other and to the whole, one can either educate observers to relate these conceptually, or one can manipulate the environment to make interrelationships clearly visible. The conservation approach has traditionally placed heavy emphasis on training exemplified by interpretive programs or education in natural science. We grant the importance of the educational approach, for there are limits beyond which the inner character of the land cannot be outwardly revealed. But we would argue that there is also a need to increase the emphasis on landscape design, thus opening an avenue to creative intuition, as well as intellect.

For a natural area, good scenic management may emphasize preserving opportunities for visual communion with nature. But emphasis on preservation alone may not fit the scenic management needs of the more ordinary landscape. To many people these areas do not now readily lend themselves to the introspective communication possible in natural areas, but communication of resource attributes is still possible. The ordinary landscape could be managed

6. See, e.g., Doxiadis, A New Role for the Architect, 17 Ekistics 100, 143-49 (1964); McHarg, A New Role for Landscape Architects, 54 Landscape Architecture 227 (1964); Violich, The Regional Landscape and Education for Landscape Architects, Paper Delivered to the National Conference on Instruction in Landscape Architecture, Louisiana State University, Baton Rouge, July 3-5, 1964 (mimeo.).

7. A similar distinction is made between “fact” and “value” in the process of image formation; see K. Boulding, The Image (Univ. of Mich. 1956).
to bring out land's content and function, with the drama of nature and land-use expressed through design.

At this point it is important not to confuse a desirable sensitivity to visual impressions with an over-concern with superficial images. Two scenes might look much alike on first or distant observation—one an accurate representation of a rich environment under competent land management, the other a resource carelessly used but disguised with screens and props. How can one differentiate between deep concern and superficiality? We suggest that one basic criterion is the amount of information that might be gained by approaching the scene more closely, or by spending more time and care in observation. Good scenic management of resources not only characterizes the resource in distant view, but preserves or enhances detail, specificity, variety, and serendipity—the hidden but valuable surprises for those who can recognize and appreciate them.

How can the meaning of the resource environment be properly enhanced and reinforced? To answer this question we must turn to the fourth characteristic.

D. Imageability

Architect Kevin Lynch developed the term "imageability" to connotate attributes of a scene that give it a high probability of evoking a strong image. He (and others) have found that certain visual patterns and objects act as foci, landmarks, clues, or symbols, helping people form vivid images and impressions. While this work emphasized metropolitan settings, it has two broad implications for natural resources management and planning.

First, observers tend to notice things which already have strong or symbolic meaning for them. Many will be shocked by the sight of bulldozers, slash piles, and tree stumps; but they may be reassured if these manifestations are seen as part of a full cycle of harvest and growth and if it is obvious that the land is being used with care. It is incumbent on the resource manager to identify those aspects of his work that are visually striking and meaningful to observers. With the coming of intensive resource use, he can no longer merely conceal the negative symbols; now he must positively display most or all of the attributes of resource management and development.

The second implication of the concept of imageability is that the composition, depth, scope, and duration of view must all be con-

Considered. For example, a traveler will be bored by the endless high vegetation of roadside strips; irritated by fleeting glimpses of vistas that invite extended observation; or stimulated by thoughtful contrasting of scenes. Architect Phillip Thiel cites a vivid example:

Rikyu, in his garden at Sakai, obstructed the open view of the sea, by planting a grove of trees in such a way that only when the guest stooped at the stone water basin to wash his hands and rinse his mouth preparatory to entering the teahouse he caught an unexpected glimpse of infinity—thus suddenly revealing the relation of the dipperful of water lifted from the basin to the vast expanse of the sea, and of himself to the universe.9

The design of expressive scenes is a difficult task in itself. Yet it is evident that images are not formed from static pictures, but are abstracted from series of vignettes perceived over time. For example, a typical trip from the city to or through a wildland area gives the impression that the city is advancing and encroaching on nature. Often this may be a correct image, but occasionally it is exaggerated by present road designs, lack of roadside zoning, and misuse or disuse of land seen from the road. Areas under intensive resource management can give an accurate impression of planned appropriate use, but landscape management on such a regional scale will require increased sensitivity to visual problems and opportunities on the part of resource managers. It will take research on regional landscape analysis, and in turn, study of the perceptiveness of both resource managers and the many segments of the observing public.

CONCLUSION

We have proposed that it should be possible to identify problems of landscape management in terms of nature, beauty, meaning, and imageability. Each of these landscape characteristics could become a distinct focal point for establishing public policy, providing paths for research, and through design, giving us the means to enhance and explain the landscape of resource use.