Decision-Making Techniques for Identifying Aesthetically Superior Highway Environments

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Recent concern about the visual quality of the highway environment has tended to focus primarily on equitable means of reducing the visual impact of billboards and junkyards on that environment. Impetus to protect and enhance the visual character of existing and future highways has come, of course, from the Federal Government.

Both the 1958 Federal Act, dealing with the control of outdoor advertising devices along the Interstate System, and the 1965 Highway Beautification Act have as a stated purpose the promotion of enjoyment of public travel. In the 1965 Highway Beautification Act, this concern is expressed in terms of the promotion of the recreational value of public travel and the preservation of natural beauty. These concerns are coupled with the more utilitarian, and traditionally more acceptable in the legal sense, concern for safety and convenience. The intent of Congress seems clear, however, with regard to the protection and enhancement of the visual quality of certain highway corridors.

These rather obvious points are emphasized in order to establish a framework for the particular aspect of the complex problem of highway beautification to be briefly explored in this paper. Because of the magnitude of the problem and the necessarily limited resources available to such a program, it would appear that some means of establishing priorities in the effectuation of the program must be devised. There are most assuredly priority establishing elements contained within the Federal legislation. It is suggested here, however, that the priority implications of the legislation are of a gross order and not primarily directed toward the guidance of policy with reference to which particular segments of highway should benefit from the provisions of the act first or in what order others should follow.

It may be that the issue of priority is not a compelling one in terms of the Highway Beautification Program. If the total program is to be accomplished expeditiously and resources for that purpose are promptly forthcoming from Congress and the states, then priorities may be a matter of little consequence. If, on the other hand, a long-range effort extending over many years results, then when and where that effort is exerted could markedly influence the success of the program. The reality of the latter possibility looms rather large in view of the abandonment of the police power as a means of implementing certain aspects of the 1965 Highway Beautification Program.

The substance of my remarks has a bearing on the question of how to establish priorities with reference to the protection of the desirable visual qualities of particular highways. As yet no sophisticated means exist of evaluating the relative visual quality of specific segments of highway. A number of systems of evaluation have been developed and some are currently undergoing further testing and refinement. However, it should be clearly understood at the outset that evaluative systems designed to provide priority establishing information about the visual qualities of highway environments are necessarily subjective decision systems. A number of readily available studies relating to the evaluation of the visual qualities of the highway environment are listed in the References.

We in Washington State have taken a particular interest in the various Federal programs dealing with highway beautification and the protection of scenic highways.
interest stems in part from the fact that scenic beauty is one of our most valuable natural resources. State legislative action formalized this interest in 1961 with the passage of the Highway Advertising Control Act. One section of the act called for a study to develop criteria for the establishment of additional scenic areas. It is my intention to utilize this study, and a subsequent application of it in the field, as one example of how evaluation and priority establishment with reference to scenic or visually superior highways can be undertaken. It is at best an imperfect system but represents one example which is reasonably well documented and in which the concepts developed were actually applied in the field.

CRITERIA DERIVED FROM POLICY

Initial guidance in the formulation of criteria for the selection of scenic areas can be found in the legislative enactments dealing with the protection of such areas. Utilizing the Washington State law to exemplify this point will be convenient as well as instructive, since it is one of the most comprehensive acts of its kind. Scenic area is defined in the Washington State Highway Advertising Control Act of 1961 as follows:

Scenic area means all land adjoining or adjacent to any state highway and within 660 feet of the edge of the right of way within any public park, forest area, public beach or public recreation area, national monument, and any state highway or portion thereof outside the boundaries presently existing on the effective date of this act of any incorporated city or town designated by the legislature as a scenic area.

Elsewhere in the 1961 act it states that "the control of signs in areas adjacent to state highways of this state is hereby declared to be necessary to promote the public health, safety, welfare, convenience and enjoyment of public travel... and to attract visitors to this state by conserving the natural beauty of areas adjacent to the interstate system, and of scenic areas adjacent to state highways upon which they travel in great numbers..."

Essentially, the criteria set forth in the legislation provide that scenic areas shall be for the enjoyment of public travel particularly on highways traveled by great numbers. Such areas shall also serve to attract tourists and shall contain scenery of some beauty in order to do so. The scenic area as defined in the act is limited to a strip 660 ft in width measured from the edge of the right-of-way. None of these points, however, serves to facilitate the making of decisions about what is or is not scenic as a matter of aesthetic judgment. The resort to criteria specifically intended to select scenic areas on a purely aesthetic basis should only be undertaken after the policy directives have been thoroughly exploited to narrow the range of decision-making. Careful attention to legislative directives with reference to criteria for the establishment of scenic areas has the additional advantage of reducing the likelihood of legal challenge resulting from the administration of the law.

The following general criteria were developed on the basis of the Washington Highway Advertising Control Act:

1. Routes leading from entrances to the state and leading into urban places.
2. Routes which carry relatively large volumes of traffic and which serve urban areas.
3. Routes which provide diversity of visual experience by representing the various landscape regions of the state.
4. Routes which when viewed as a whole will constitute a system of scenic areas associated with the state and Interstate Highway System. This system of scenic areas should provide for continuity of travel between major destinations throughout the state as well as diversity of scenery.
5. Additional connecting loops should be provided within shorter driving distances of population centers that also lead to or traverse popular recreation areas.
6. Unique state views should be covered by a variety of routes in terms of destination and length in order that the visual image of the state may be emphasized.

The foregoing general criteria provide a framework for preliminary screening of highways for possible designation as scenic areas without having to utilize aesthetic judgment. Ultimately it will be necessary to synthesize the criteria derived from policy directives with those devised to facilitate the making of aesthetic judgments about the relative visual merit of specific sections of highway. Thus far we have been dealing with criteria based on locational, intensity of use and systemic considerations. The next step is to devise an evaluation system to assess the relative aesthetic merit of particular scenery.

SCENIC EVALUATION CRITERIA

In studies for the Washington State Legislature we developed a series of field survey techniques for the purpose of evaluating scenery. To quote from the report "Criteria for the Establishment of Additional Scenic Areas" (8):

A survey system provides the tool for analyzing the characteristics of a particular highway as a scenic route. It is an inventory of the attributes of the area under consideration related to the criteria of the program.

The simplest survey form is derived from "A Preliminary Plan for Scenic Highways in California" (1). This technique is based primarily on the previously described general criteria but does involve, in addition, an evaluation of the scenic qualities of the route under study. The evaluation is relatively unstructured and calls for an opinion on the part of the evaluator with reference to the following points:

1. Is the route scenic?
2. Does the route present a variety of scenery? (a) Within itself? (b) With other routes in the area? and (c) With other routes in the state?
3. Does the route contain scenery which typifies the region or state?

The survey technique represents a minimal evaluative devise for appraising scenic areas. It provides little more than an unexplained record of the opinion of the evaluator. This technique can be useful, however, if those administering it are experienced in the realm of scenic evaluation and have a high level of aesthetic judgment.

A second, and more comprehensive survey technique is in the nature of an analytical check list enumerating possibilities of each type of view. This device requires the evaluator to note the specific elements viewed such as historical, geomorphic, hydrographic and floral. An appraisal of the unique quality of the elements observed is required as well as a description of the manner of perceiving the elements, whether a vista, panorama, or other type of view. Finally, the evaluator is required to rate the perceptual quality of the segment of highway on a one (least scenic) to five (most scenic) scale. This method provides considerably more documentation than the first technique described. A much more detailed record of the basis on which the evaluator made his judgment is available.

The third method is even more detailed. I shall attempt to describe this method a little more thoroughly, since it is the system we have used to evaluate the scenic qualities of almost 4,000 miles of highway in Washington State.

Again we have a check list approach which is designed to structure the evaluator's observations in a systematic way. The major elements included in this method are described as follows: "Materials which are sensed visually," under this heading observations about color, texture, pattern, rhythm and shape are recorded. The second major category of route elements deals with forms. Here the evaluator must record single forms and combinations of forms whether natural or man made. A number of specific possibilities are listed in order to encourage consistent and detailed reporting. A third category covers viewpoints. Under this heading are four categories: major
prospects, impressive vistas, panoramas, and nearby scenes. The subheadings were further defined by assigning them specific quantitative values. A panorama, for example, was the term utilized to describe scenes ranging from 180 deg to 360 deg in scope.

The last two categories covered in this analysis were landmarks or visually dominant forms and expressions. The notion conveyed by the term "landmark" is probably clear to most of us. The term "expression" as used in the present context requires further definition. The expressiveness of an object has been described as the ability to evoke association in our minds. Thus expression can be one of the most powerful aesthetic influences possible from visual stimuli. Two subcategories were included under the heading expression: past associations and present associations. As in the previous route evaluation technique, there is in this most comprehensive system the requirement that the evaluator assign a grade to the route reflecting his opinion of its relative scenic merit.

Each of the specific elements which I have described is defined in some detail in an effort to provide a common understanding of the term. The major purposes of such a check list are to attempt to standardize reporting and to make the reporting as meaningfully comprehensive as possible.

CONCLUSION

While our experience with criteria for the designation of scenic areas is still very limited, the approach outlined here has proved to be a useful one. Public policy as reflected by legislative enactments must serve to provide the broad criteria with reference to the selection of scenic areas. Ultimately, however, judgments must be made regarding the relative scenic merit of specific sections of highway.

When such judgments are made it is necessary that they be rendered in as systematic a fashion as possible. I hesitate to use the term "objective" for most certainly aesthetic preference is a most subjective expression of man's response to his environment. It is desirable, however, to bring to bear on the question of scenic area designation the most sophisticated means of decision-making possible. The central issue here is essentially a qualitative one, but one which can be dealt with effectively if a systematic and consistent approach is utilized.

REFERENCES