

Appendix D

# **Visual Analysis Concepts and Definitions**



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## Visual Resources

Visual resources are the various elements of the landscape that contribute to the visual character of a place. These elements can be either natural or human-made and include objects, vistas, and viewsheds. A visual assessment generally begins with an inventory of the visual resources of a particular site.

## Visual Character

Visual character is described as the elements of form, line, texture, and color of a visual resource, combined with that visual resource's characteristics of dominance, scale, diversity, and continuity (USDA Forest Service 1974; Federal Highway Administration 1983). Both natural and artificial landscape features compose the character of an area or view. Both natural and artificial landscape features contribute to perceived visual images and the aesthetic value of a view. Geologic, hydrologic, botanical, wildlife, recreational, and urban features influence aesthetic value. The perception of visual character—visual images and their perceived quality—can vary significantly seasonally and even hourly as weather, light, shadow, and the elements that compose the viewshed change. The appearance of the landscape is described in terms of the dominance of each of these components.

## Visual Quality

Numerous methods have been developed to characterize the scenic quality of a viewscape. A standard approach to visual analysis is that adopted by the Federal Highway Administration, employing the criteria of vividness, intactness, and unity (Federal Highway Administration 1983; Dunne and Leopold 1978 ; Jones et al. 1975), as defined below.

- **Vividness** is the visual power or memorability of landscape components as they combine in visual pattern.
- **Intactness** is the visual integrity of the natural and artificial landscape and its freedom from encroaching elements. This factor can be present in urban and rural landscapes, as well as in natural settings.

- **Unity** is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual components in the artificial landscape.

*Visual quality* is evaluated based on the relative degree of vividness, intactness, and unity apparent in a viewscape as modified by its visual sensitivity. High-quality views are highly vivid and relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity. The measure of the quality of a view must be tempered with overall sensitivity of the viewer.

Judgments of visual quality must be made based on a regional frame of reference (U.S. Soil Conservation Service 1978). The same landform or visual resource appearing in different geographic areas could have different visual resource quality and sensitivity in each setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

Visibility and visual dominance of landscape elements are described with respect to their placement within the field of view. Foreground elements are those features nearest to the viewer, and background elements are features at a great distance from the viewer. The middleground of a view is intermediate between the foreground and background. A viewshed is defined as all of the surface area visible from a particular location or sequence of locations (e.g., roadway or trail) (Federal Highway Administration 1983).

## Viewer Response

*Viewer response* is the psychological reaction of a person to visible changes in the viewshed, and is based on the sensitivity and exposure of the viewer to that viewshed. *Sensitivity* relates to the magnitude of the viewer's concern for a viewshed. *Exposure* is a function of the type of view seen; the distance, perspective, and duration of the view. The term exposure may also refer to the number of people exposed to a particular view.

Aesthetic sensitivity is described in terms of viewer response: viewer activity, awareness, and visual expectations in relation to the number of viewers and the viewing duration. For example, commuters and non-recreational travelers tend to focus away from surrounding scenery and onto commute traffic. For this reason, a viewer group composed of commuting travelers is generally considered to have low aesthetic sensitivity. Residential viewers typically have extended viewing periods and are generally concerned about changes in the views from their homes. As a group, residential viewers are considered aesthetically sensitive.