
DOMINANT AND VARIANT VALUES IN ENVIRONMENTAL PREFERENCE

Rachel Kaplan

*Human behavior mirrors at all times an intricate blend
of the universal and the variable.
(Kluckhohn, 1953, p. 345)*

Some three decades ago, Florence Kluckhohn suggested that within each culture there is a dominant solution to any of the "basic human problems" that must be addressed by all cultures. But these solutions will also show identifiable variations for specific groups within the culture. One of the themes Kluckhohn included in her short list of basic human problems was "man's relation to nature." All cultures must address this question, but within any culture there will be dominant and variant values attached to it.

Inclusion of this theme as a basic human problem is in itself noteworthy. In the course of more than a decade of research on environmental preference we have discovered that natural elements seem to be strongly preferred. At the same time, the theme has variations. The kinds of natural settings that are highly preferred are variable, but the variability follows predictable patterns. The purpose of this short paper is to explore some of these relatively dominant or universal aspects and some of the variant expressions of environmental preference within our culture.

It would be impossible in this short space to describe the rich variety of studies which are the basis for this analysis. There are about twenty of them. They have in common that they include visual representations (slides or photographs) that were carefully selected to sample the respective environments broadly, that they used a single 5-point rating scale for preference, and that they included participants without any particular environmental expertise. The studies differ in many respects, but perhaps the most important is in the kinds of environments under study. These range from relatively urban areas to wildlands, from "pretty" water-scapes to wet areas that are not considered particularly aesthetic, from studies drawing on a particular location to others which include visual material representing highly diverse places. Some of the studies also included various professional groups, some included measurement of familiarity with the particular environments, and some included extensive verbal items to supplement the picture ratings. Almost all of the studies were done in this country, but even within this single cultural category, many subcultures are represented.

Dominant Values

Where the basis of comparison is at a broad scale, the preference for natural settings over urban areas is clear and strong (Kaplan, Kaplan and Wendt, 1972; Wohlwill, 1976). That is not to say, of course, that all natural settings are preferred to all urban settings. The exceptions, however, are not as striking as the generalization. Nor does this finding imply that all natural areas are equally liked. Let us examine the characteristics of the natural settings that show consistent preference patterns.

"Nature" is often considered synonymous with "open space." This turns out to be quite misleading. In fact, in a variety of studies it has been shown that "wide open spaces" are by no means universally preferred. Scenes that are wide open, have much sky, and lack any particular differentiating characteristics tend to be relatively unliked. Such landscape might be farmlands (Kaplan, 1977), unused roadside land (Ulrich, 1974), or even the bog mat (Hammit, 1978) or marshes (Ellsworth, 1982). Areas that have recently been clearcut (Anderson, 1978) offer a further example.

But some areas that depict "open spaces" are highly preferred. What distinguishes these from the seemingly barren areas just described, are elements that help differentiate the openness. Imagine a huge grassy area as far as the eye can see without interruption. Contrast that to the same scene but with a few clusters of trees at varying distances from the observer. The latter scene would generally be highly preferred. It is difficult to judge depth of an undifferentiated surface; even a relatively small number of trees contributes markedly to the spatial definition of the scene. In most studies the best name for this spatially-defined, open configuration is "parklike." In landscapes that are less managed such a pattern reflects savanna. High preferences for such areas have been a consistent finding in a great variety of studies (e.g., Balling and Falk, 1982; Herbert, 1981; Hudspeth, 1982; Ulrich, 1974; Woodcock, 1982).

In forested areas, openness also marks an important component of preference. Here, it has been consistently shown that relatively dense forests are less preferred. In Woodcock's (1982) study, for example, rainforest scenes showed the negative effect of relatively impenetrable, blocked views. A study in Michigan's Upper Peninsula (Kaplan, 1984), while providing totally different scenery, is no different in the negative impact of the densely forested areas.

The more open woods, by contrast, are highly preferred. Both the Woodcock study and the one in the Upper Peninsula included examples of the dense as well as the open. In Anderson's (1978) study such open forests were the most highly rated. In such settings there is a sense that one could function more effectively either because the transparency among the trees permits increased visual access or because the smoother ground texture suggests that locomotion could be accomplished relatively easily. In the dense or blocked forested views, by contrast, where there is considerable understory or a mass of foliage, neither visual nor locomotor accessibility is apparent.

Thus both openness and spatial definition constitute salient components of environmental preferences that are consistent across many environmental contexts and many

individuals. Given the preference framework that has been presented earlier (S. Kaplan, this issue; Kaplan and Kaplan, 1982, for a fuller discussion), these patterns are not surprising. Information that facilitates comprehension about what might be going on is valued; thus smooth textures, suggestions of paths, and sufficient openness to permit at least a sense of visual access are appreciated. The presence of landmarks, of features that contribute spatial distinctiveness such as a few trees in an otherwise relatively open

rated by the various rural residents who participated in his study. These were all local residents for whom the scenes were familiar local areas. These scenes were, however, significantly more preferred by the black participants in the study than by the whites.

Although based on a relatively small sample, other variant values have become apparent in several recent studies that have focused on the nearby natural environment. In a study dealing with citizens' perceptions of a

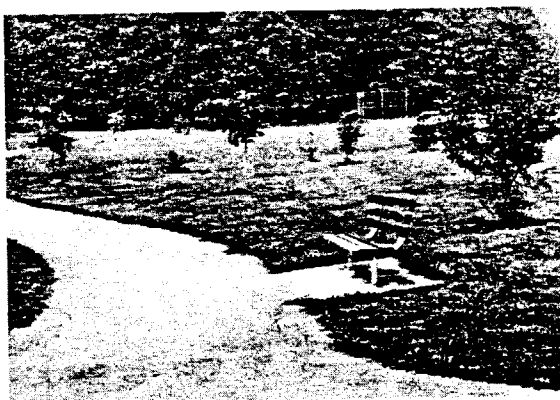


Figure 1. Scenes that showed sizable variation in preference for different samples.

setting, provide spatial definition and suggest that way-finding will be possible. On the other hand, apparent sameness — either in a wide open area lacking structure or in a dense woods — and the suggestion that traversing the scene will be difficult, make it all the more likely that one might get lost.

Variant Values

Even when certain kinds of scenes are highly preferred or consistently less liked, it is not the case that all viewers rate them similarly. For example, the “planned spacious openings and scenic roads” in Anderson’s study were highly

storm drain (Kaplan, 1977), one scene showed dramatic differences. For people who lived in a relatively affluent area for whom the scene was quite familiar it was by far the most preferred. Residents living in relatively low-income housing, by contrast, rated this scene very low in preference, and the participants who lived in housing reflecting income levels between these extremes expressed intermediate preference levels. We decided to include this scene (upper left in Figure 1) in a subsequent study that was carried out in two parts.¹ In both cases individuals were asked to sort a deck of photographs into five piles that represented their degree of preference for each scene. In the first part, Ann Arbor residents were included and the difference between the

¹ This study was supported, in part, through Cooperative Agreement 13-655, between the U.S. Forest Service, North Central Forest Experiment Station, Urban Forestry Project, and Stephen Kaplan and myself as co-principal investigators.

black and the white participants was highly significant for this scene. The second phase included 97 Detroit inner-city residents. Their extremely low preference for this scene was quite similar to the black participants in the first phase.

Results based on a single scene must be viewed with great caution. If one examines the various scenes, however, that showed sizable differences in preference between these two ethnic groups, as well as examining the scenes that were most and least preferred for the Detroit sample, some useful insights emerge. The least preferred scenes for the Detroit sample show a less managed form of nature; they appear wilder, less controlled (top row, Figure 1). By contrast, the scenes that these inner-city residents rate very positively are ones that are neat and orderly and include clear evidence of human influence (bottom row, Figure 1). Well-paved sidewalks and benches seem to contribute substantially to preference of natural settings.

While the variant values are apparent and have been consistent in a variety of studies, the identification of the subculture is less clear. Whether this preference pattern is characteristic of urban populations, of black, of older individuals within these groups rather than younger ones, of less affluent people — these issues need to be sorted out. Does a need for a neat and orderly environment reflect a lack of clarity in other domains of one's life or are these findings consistent for identifiable groups within a culture?

Some Implications

The variant values are important to recognize. They suggest that different design solutions might be needed to accommodate the concerns and satisfactions of different segments within the culture. At the same time, however, the similarities in preferences are equally important.

Some of the biggest differences in nature preference may not be a function of urban/rural experience, ethnicity, age or income. An important, and readily overlooked, basis

for variant values is attributable to expertise. Several studies have now shown that foresters (Anderson, 1978), landscape architects (Grant, 1979), planners (Hudspeth, 1982), and environmental educators (Medina, 1982) perceive the environment differently than do citizens without such training. Such differences are not merely interesting to recognize. They lead to important implications, bearing directly on the making and implementation of environmental decisions.

At the very least such individuals should avoid making decisions based on assumptions of what people like or dislike. Fortunately, a powerful corrective to the reliance on such assumptions is readily available. Public participation provides a direct and forceful avenue for communicating what people's preferences in fact are. This can make possible the expression of the diversity that in fact characterizes the reactions of different groups. Not only might it lead to recognition of variant perspectives, it can also provide a voice for the dominant values when they happen not to be shared by the experts in decision-making roles.

It is also interesting to note that one major finding of this research suggests a striking change in the thirty years since Kluckhohn made her observations. While she identified "man over nature" as the dominant American perspective with respect to the natural environment, our preference results of the last several years show the heavily controlled and human-influenced version of nature to be rather a variant than a dominant theme. The dominant theme, by contrast, favors a substantially less domesticated nature. While order is still important, a notable shift seems to have occurred. This is perhaps not surprising; those thirty years have witnessed a major upheaval in human-environment relations. The natural environment is now much less likely to be perceived as infinite or as encroaching or indefinitely resilient. The "best things in life" are increasingly seen as scarce and endangered rather than limitless and free. Here again the differences are a matter of degree; the basic preference for nature endures throughout.

REFERENCES

- Anderson, E. (1978). Visual resource assessment: Local perceptions of familiar natural environments. Doctoral Dissertation, University of Michigan.
- Balling, J.D., & Falk, J.H. (1982). Development of visual preference for natural environments. *Environment and Behavior*, 14, 5-28.
- Ellsworth, J.C. (1982). Visual assessment of rivers and marshes: An examination of the relationship of visual units, perceptual variables and preference. Master's thesis, Department of Landscape Architecture, Utah State University.
- Grant, M.A. (1979). Structured participatory input. Master's thesis. Department of Landscape Architecture, University of Michigan.
- Hammitt, W.E. (1978). Visual and user preference for a bog environment. Doctoral Dissertation, University of Michigan.
- Herbert, E.J. (1981). Visual resources analysis: Prediction and preference in Oakland County, Michigan. Master's thesis, Landscape Architecture, University of Michigan.
- Hudspeth, T.R. (1982). Visual preference as a tool for citizen participation: A case study of urban waterfront revitalization in Burlington, Vermont. Doctoral Dissertation, University of Michigan.
- Kaplan, R. (1977). Preference and everyday nature: Method and application. In D. Stokols (Ed.), *Perspectives on Environment and Behavior*. New York: Plenum, 235-250.
- Kaplan, R. (1984). Wilderness perception and psychological benefits: An analysis of a continuing program. *Leisure Science*, 6, in press.
- Kaplan, S., & Kaplan, R. (1982). *Cognition and environment: Functioning in an uncertain world*. New York: Praeger.
- Kaplan, S., Kaplan, R., & Wendt, J.S. (1972). Rated preference and complexity for natural and urban visual material. *Perception and Psychophysics*, 12, 354-356.
- Kluckhohn, F.R. (1953). Dominant and variant value orientations. In C. Kluckhohn & H.A. Murray (Eds.), *Personality in Nature, Society and Culture*. New York: Knopf.
- Medina, A.Q. (1983). A visual assessment of children's and environmental educators' urban residential preference patterns. Doctoral Dissertation, University of Michigan.
- Ulrich, R.S. (1974). Scenery and the shopping trip: The roadside environment as a factor in route choice. University of Michigan: Geographical Publication No. 12.
- Wohlwill, J.F. (1976). Environmental aesthetics: The environment as a source of affect. In I. Altman & J.F. Wohlwill (Eds.), *Human Behavior and the Environment*. New York: Plenum.
- Woodcock, D.M. (1982). A functionalist approach to environmental preference. Doctoral Dissertation, University of Michigan.