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Landscape Journal is dedicated to the dissemination of the results of academic research and scholarly investigation of interest to practitioners, academicians, and students of landscape architecture.

Cover and below: Cemetery, Ivesdale, Illinois. See Bruce Hannon, "The Forgetting Rate: Evidence From a Country Cemetery." Photographs by Robert B. Riley.

Volume Nine, Number One

Spring 1990



The Nature and Ecology of Aesthetic Experiences in the Landscape

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Abstract: *The assumption that aesthetically pleasing environments provide valued experiences that can improve people's quality of life underlies many government landscape policies and their resultant assessment procedures. Although the aesthetic experience has been discussed by philosophers and some psychologists, the aesthetic experience of landscapes has not been studied empirically. This research reports the results of an investigation into the nature and ecology of that experience. Twenty-five college students were given diaries consisting of structured and open-ended response formats in which to record their aesthetic experiences during the spring semester. These experiences differed greatly in terms of their impact on the percipient, showed a definite ecology in time and space, and were highly valued relative to other meaningful life experiences. Implications for research in landscape assessment and management of landscapes for aesthetic experiences are discussed.*

Beauty has been considered important enough to be a legitimate purpose of public landscape management, even to the point of being translated into public policy (Zube, Sell, and Taylor 1982). In the United States for example, the National Environmental Policy Act of 1969 requires federal agencies to ensure "aesthetically and culturally pleasing

environments," and many state and local laws mention beauty as a valid public purpose for regulation. While such policies have stimulated a great deal of research aimed at evaluating the aesthetic attributes of landscapes, little empirical attention has been given to the experiential aspects of landscape beauty (Zube 1984). Because of this, a fundamental assumption underlying much legislation as well as landscape assessment research remains untested. The assumption is that beautiful land-

scapes provide unique opportunities for people to achieve special kinds of experiences, often called "aesthetic," that are highly valued and less likely to occur in less-beautiful places. Were this not the case, both environmental policy and landscape assessment research would more fruitfully be directed towards planning objectives other than aesthetics, such as the maximization of

ecological diversity, recreational satisfaction, or property values.

This paper reports the results of a preliminary inquiry into the aesthetic experience of landscapes. We see and hear an abundance of anecdotal evidence regarding people's aesthetic experiences, yet little information has been collected or studied systematically. Our intent is to define and identify the characteristics of these experiences, how they are subjectively expressed, how they vary across time and space, how they relate to the objective environment, and what value they might have to an individual. The inquiry is only a first step into relatively uncharted territory, and our conclusions are intended only to suggest directions for future research. In departing from the methods of philosophy, the substance of current landscape assessments, and the methodological rigor advocated by the social sciences, we run the risk of satisfying no one. Nevertheless, few would deny the existence of the phenomenon of aesthetic experience and the research challenge it brings.

The Aesthetic Experience

In beginning such an inquiry, we examined a broad range of literature in the areas of philosophy, psychology, and landscape perception. Our purpose was to see how past authors have sought to characterize the aesthetic experience and related phenomena so that we could develop an instrument to assess empirically people's aesthetic experiences in outdoor environments. From this review, summarized below, we developed a series of rating scales and open-ended questions to tap four components of the aesthetic experience: its nature, its ecology, the object of the experience, and the subjective value of the experience.

Philosophy and the Nature of Aesthetic Experience. The nature of the aesthetic experience refers to the subjective thoughts, feelings, and emotions expressed by an individual during the course of an experience. In this regard, the philosophical literature provides fertile ground for those who would understand aesthetic experiences using empirical approaches. Many of the scales we used to identify variations in aesthetic experiences were suggested by philosophical descriptions.

Authors such as Osborne (1970), Stolnitz (1969), and Beardsley (1970) assert that aesthetic experiences have a completeness and coherence, a unity that makes them stand out from the experiences and flow of everyday life. The experience is said to be intrinsically gratifying in that the percipient derives a satisfying pleasure from merely beholding the object (in this case, a landscape). Kant (1964) referred to this as "disinterested" pleasure, meaning that during the aesthetic experience we behold an object without wanting to acquire it, possess it, use it, consume it, or in some other way regard it for its potential utility. Simply beholding the object gives us the special experience that we derive from objects that please us merely upon being seen.

Additional discussions within the philosophical literature suggest that the percipient may be more absorbed in aesthetic experiences than in non-aesthetic ones and that the former may be more intensely felt than the latter.

In addition to the academic discipline of philosophical aesthetics, a rich source of descriptive material in the popular literature celebrates the special experiences that may be gained through encounters with nature. The eloquence of Aldo Leopold, John McPhee, John Muir, Henry Thoreau, and other writers is widely appreciated.

Our investigation departs from the philosophical literature described here in two important respects. First, we have chosen to use an empirical rather than a philosophical mode of inquiry. Second, rather than be concerned with attempting to describe what is common to aesthetic experiences and to distinguish them from other experiences, we seek to explore the possibility of variations in aesthetic experience.

Two points about the philosophical literature might restrict its usefulness in empirical inquiry on the aesthetic experience of landscapes. First, much of the literature concerns the experience of art and thus may not translate well to the landscape because of differences enumerated by Hep-

burne (1968), Ittelson (1973), Carlson (1979), and others. For example, unlike the experience of art, landscapes are dynamic, people are *in* the landscape, and the mere turning of one's head may change the experience radically. Second, while it may appear from the discussion here that there is relative unanimity among philosophers about the nature of aesthetic experience, that is not the case. For example, Dickie (1969) argues that aesthetic experience is a myth, that it is merely focused attention, and therefore perhaps different in degree but not in kind from other experiences.

Psychology and the Nature of Aesthetic Experience. Although describing the nature of the aesthetic experience remains largely the domain of philosophers, some psychologists have made noteworthy contributions to understanding this phenomenon. Most of the work, however, has been directed generally towards the nature of conscious experience of which aesthetic experience is only a part. William James (1890) described conscious experience as a flow or "stream of consciousness" combining multisensory environmental inputs, mental imagery, and affective response. According to Berlyne (1960), optimal levels of arousal from certain patterns of environmental stimuli have positive hedonic effects. These can result in altered states of consciousness, described by Maslow (1968) as "peak" experiences and by Csikszentmihalyi (1975) as "flow" experiences.

Few psychologists have made conceptual distinctions between the characteristics of different types of peak or flow experiences. For example, Maslow (1968) described peak experiences as extraordinary experiences of love, parental experience, athletic fulfillment, and mystical and religious experiences, as well as nature and aesthetic experiences. His description of an ideal peak experience was based upon interviews with 190 college students. It is characterized as having a richness otherwise not present in the

experience of ordinary life events, a unity within itself, and a detachment from the normal flow of events. Although the experience is highly valued and desirable, it is not something one can force to happen. Instead, he says the experience is a passive one that comes to the individual, who is in a properly responsive state of mind. According to Maslow, the experience may cause the percipient to feel disoriented in space and time and to have a sense of humility, unity, and introspection.

More recently, some researchers within the field of leisure science have sought to identify the components of the "leisure experience" (e.g., Tinsley and Tinsley 1986; Gunter 1987). While much of this work was not published (or we were not aware of it) when we developed our data collection instrument, subsequent review of this body of literature revealed many parallels to our own concept of the aesthetic experience. Berger and Schreyer (1986) provide a particularly complete examination of this literature.

For us, one of the most valuable psychological perspectives focusing specifically on the aesthetic experience was an early, introspective account by Hevner (1937). Hevner outlined what she felt were the principal elements of the aesthetic experience, concentrating on attributes of the experience and the effects or conditions under which it is manifested for the percipient. Its attributes generally agree with those mentioned by aesthetic philosophers and psychologists concerned with the nature of peak or flow experiences, but at times Hevner's ideas contrast with or emphasize different points. For instance, she maintained that such experiences are usually pleasant, but ugly things also have their aesthetic qualities and may elicit an aesthetic experience. She also emphasized that the experience has an intensity, complexity, and memorability that make it stand out from the flow of everyday experience. Because of this intensity

and the focused physical and psychological attention it demands of the percipient, she asserts that such experiences are usually short-lived. Thus attention is an active state of mind and body; experiences do not sweep over the individual in a moment of "passive acquiescence," but instead require an alert awareness. Eyes and ears focus to catch detail, and various muscular and visceral responses signal bodily awareness, while the mind simultaneously supplements and interprets. As attention becomes interrupted or shifts and as muscular contractions cause fatigue, the intensity of the experience fades, according to Hevner.

Hevner also emphasized cognitive and perceptual skills in people's ability to have aesthetic experiences. She wrote that knowledge, past experience, and training can help increase the intensity and frequency of experiences. Similar to philosophical treatments of the subject, some of Hevner's ideas may have more relevance to the aesthetic experience of art objects than of landscapes. Nevertheless, many of her points do have some intuitive validity.

In addition to certain convergences with the philosophical literature, the work of Hevner and Maslow suggested to us that the inclusion of scales relating to knowledge, memorability, and whether the occurrence was sought out or just happened might assist in the empirical description of aesthetic experiences and possible variations thereof.

Ecology of the Aesthetic Experience. Apparently there is no body of research that has attempted to understand the distribution of aesthetic experience in time and space and in relation to either the perceived or the objective environment. Clearly, however, the idea has its origin in the ecological paradigm in environmental psychology as represented by Barker (1968) and his associates. While the general idea is the same, certain differences complicate an inquiry into the ecology of aesthetic experience from a methodological perspective. Most importantly, the behavioral focus of ecological psychology allows investigation through direct

observation of behavior as well as through indirect and unobtrusive observations (Webb, Campbell, Schwartz, and Sechrest 1966). Insofar as the behavioral correlates of aesthetic experience, if any, are unknown, ecological questions must be answered by self-reports with all their attendant problems.

Object of the Aesthetic Experience.

Research on the aesthetic assessment of landscapes most closely parallels our investigation of the object of the aesthetic experience. For more than two decades investigators in landscape assessment have sought to identify the attributes of landscapes responsible for people's aesthetic preferences. In a review of this literature, Gobster and Chenoweth (1989) identified three major categories of landscape preference attributes. They included physical landscape attributes such as vegetation and topography (e.g., Hull, Buhyoff, and Cordell 1987), formal or artistic attributes such as line, form, color, and texture (e.g., USDA Forest Service 1974), and psychological attributes such as mystery and legibility (e.g., Kaplan and Kaplan 1982). Literature in cultural geography (e.g., Tuan 1974; Lowenthal 1985) suggests that other attribute categories such as landscape symbolism and past associations may play important roles in landscape preferences. Most investigators have chosen these categories and attributes on the basis of their own ideas or theories of what is important, and little is known about whether individuals themselves construe the aesthetic qualities or the aesthetic experience of landscapes in these terms.

Other aspects of the aesthetic object that may be important in characterizing the aesthetic experience have received little attention in empirical studies of landscape preference. Past reliance on photographic surrogates in landscape preference research has constrained the scope of questions that investigators could ask about the aesthetic qualities of landscapes. Whether the object is a specific element in the landscape or the whole landscape itself, whether it is static or dynamic, whether its presence in the landscape is permanent or ephemeral, and other kinds of factors may provide important clues to the environmental conditions surrounding aesthetic experiences. With

Introduction

Throughout our lives, each of us has probably had what we would call "aesthetic experiences." They are very difficult to describe and communicate to others. Still, few would deny having such experiences. While we cannot directly observe the aesthetic experiences of others, we can begin to understand the conditions under which such experiences are more or less likely to occur, and we can begin to understand how aesthetic experiences differ between people. For you, the experiences may occur frequently or infrequently, may be small and fleeting or large and "peak", intensely exciting or incredibly calming. They may occur alone or only with certain others. They may include all of the senses or just one, and may depend on your mood at the time. They may be more likely to occur in some environments rather than others or may just happen to you regardless of where you are or what you are doing. And the "object" of your aesthetic experiences may be well defined objects, such as a piece of art or music, or it may be whole areas either indoors or outdoors.

In order to better understand aesthetic experiences, something of how they are similar or different between people, and the external conditions which are more likely to give rise to such experiences, we would like you to donate a small amount of your time to answer a few questions about your personal aesthetic experiences.

A Definition of Sorts

Before beginning, we should have at least a working description of an aesthetic experience, even if it isn't exactly right for you. Feel free to write in changes or additions if it better describes your own personal definitions of aesthetic experience:

The aesthetic experience seems to isolate both us and that which we are experiencing aesthetically, from the flow of daily experience. We feel as though life had suddenly become arrested, for we are absorbed in the object of our attention and abandon any thought of its utility or function. We do not classify it, study it, judge it, nor consider it for any ulterior purpose it may serve. We are wholly in the present with no thought of the past or future. There is no purpose or motivation behind our experience other than just having the experience for its own sake.

Part I: Verbal Description of Your Experience

In your own words, write a short paragraph or two describing the experience you had; what it was, what happened, and how it effected you. Feel free to elaborate--some of the scales in part two might give you further ideas on what might be relevant in recounting the experience and its impact on yourself.

Example

"My aesthetic experience happened yesterday morning as I left the house for school. It was partly the snow that caused it: big, wet flakes were falling down profusely. They looked nice, and they gave the rather ordinary urban scenery around me a different, more pleasing look. But then something else happened. I took my usual shortcut through the alley and when I came onto Gilman Street there was this woman standing on the sidewalk without a coat, arms outstretched, and eyes looking upward at the sky, watching the snow fall down. We looked at each other and smiled big smiles because of the snow, and then she started singing in an operatic voice--some sort of "ode to the snow" I guess. That sort of triggered a great awareness in me, for I became intensely involved in the snow, catching flakes on my tongue, feeling them fall on my face, and hearing them plop on my jacket. As I continued down State Street I stayed absorbed in the experience, though I realized I still had to face my Soils class in a few minutes."

Figure 1. Introductory material to Aesthetic Experience Diary.

further investigation, it may be possible to connect manageable attributes of the physical environment with probabilities that aesthetic experiences will occur. Our attempt here, however, is more modest and descriptive.

Value of the Aesthetic Experience.

Landscape assessment methodologies often rely on a rating-scale approach to estimate the value that a scenic landscape may have for an individual (e.g., Daniel and Boster 1976). These ratings can be used to assess a landscape's scenic value compared with other sites under consideration. In a similar approach, a dollar value may be assigned to a landscape, indicating an individual's willingness to pay for scenic quality (e.g., Boyle and Bishop 1984).

In attempting to estimate the value that aesthetic experiences have for an individual, we felt that a simple rating or the assignment of a dollar value would not tell the whole story. Aesthetic experiences are highly personal and individualistic; therefore we sought measures that would provide information on the kinds of psychological benefits that might accrue from these experiences. Two measures that we believe accomplished our goals looked at (1) the value of the aesthetic experience relative to other significant life events and (2) the changes in the overall mood of the individual as a result of the experience. We hoped that these items together would improve our understanding of the value to the individual.

Methods

Subjects. The subjects were 25 undergraduate and graduate student volunteers enrolled in a class on the aesthetic assessment of landscapes during the spring semesters of 1983 and 1984 at the University of Wisconsin-Madison. Before receiving a diary, students were exposed to some philosophical reading (Adler 1981; Dickie 1969; Stolnitz 1969) and to lectures on the nature of aesthetic experience.

The Diary. The diary was organized into a pocket-sized booklet consisting of instructions, definitions for scale items, and enough forms to record 10 aesthetic experiences. Additional forms were provided in case subjects had more than 10 experiences during the course of the study.

Nature of the Experience

Each aesthetic experience was to be recorded in two parts. First was an open-ended format that allowed the subjects to describe their experience: what it was, what happened, how it affected them. The second part was comprised of sets of rating scales concerning (1) the experience itself, (2) the ecological aspects of the situation, (3) the object of the experience, and (4) the value of the experience.

The introduction to the diary is shown in Figure 1. The scales, together with their instruction for parts one and two of the diary, are summarized in Figure 2.

Procedure. The subjects were instructed to record all outdoor aesthetic experiences soon after they occurred. It was emphasized that if no aesthetic experiences occurred, none should be imagined and recorded just to please the investigators. The diaries were distributed in late February and collected in May of 1983 and 1984.

Results and Discussion

Nature of the Aesthetic Experience.

The 25 participants described a total of 135 aesthetic experiences, which were treated as the units of observation for all subsequent analyses. The following description captures the essence and the components of a typical experience:

On my way to class I took the pedestrian path on top of the ridge parallel to Observatory Drive. Suddenly I saw a sea of fog coming from the lake over the ridge close to the observatory. I had to stop, and started to project myself into this "pea soup." I felt insignificant, like an ant in this grand masterpiece of nature. There was also a feeling of fear, apprehension, and indescribable angst in the image. The whole scene was very mysterious, and apart from the adjacent hectic atmosphere of the rest of the campus. I spaced out for an instant, and experienced being part of this moist element floating on top of the lake. I came late to class.

This person clearly described the nature of her aesthetic experience in a range of emotions and recounted her interactions with the object of her experience, the foggy lake. Little information is given about the ecology of the experience, except that she "spaced out for an instant."

Although we called the above example a "typical" experience, in actuality we found much more variation than commonality among aesthetic experiences. In the structured scale responses, the only commonalities were that experiences were "memorable" (65%) and "very pleasant" (68%), and tended to "just happen" rather than be "sought out" (63%). There was some tendency for people to be aware of themselves during the experience and

to feel detached from the object. Also, experiences tended to occur suddenly, then end, rather than build up to a peak. Overall, however, the data are inconsistent with previous notions that certain dimensions of aesthetic experience are restricted to a narrow range. Instead, the data suggest that it is not a matter of whether people do or do not have an aesthetic experience, defined by selected attributes on a set of dimensions. Rather, the label "aesthetic" might apply to a variety of experiences. Ultimately, research might proceed to explain this variation by reference to attributes of the landscape as well as to ecological factors.

floating	-	aware of self
felt part of object	-	felt detached from object
knowledge played a role	-	knowledge played no role
mild	-	intense
just happened	-	sought it out
memorable	-	not memorable
aroused	-	calmed
happened suddenly	-	rose to a climax
totally absorbed	-	mildly absorbed
very pleasant	-	mildly pleasant
I felt important	-	I felt insignificant

Object of the Experience

What was the object of your experience?

How was it construed?

	-	physical
	-	psychological
	-	artistic
	-	symbolic
	-	past associations
whole area	-	specific object
ephemeral	-	permanent
beautiful	-	ugly
man-made	-	natural
simple	-	complex
rare	-	common
dynamic	-	static

Ecology of the Experience

Who were you with?

When did it happen? (hour, week)

Routine

What were you doing?

place didn't matter	-	place had special meaning
place was familiar	-	place was strange

Value of the Experience

What was the best nonaesthetic experience you had in the past week?

How would you compare your aesthetic experience?

much more valuable	-	much less valuable
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What kind of mood were you in before and after the experience?

Before:	bad	-	good
After:	worse	-	better

Figure 2. Rating scales used in the study.

In our analysis of prose descriptions of aesthetic experiences it became obvious that many descriptions contained a theme as well as a recounting of the experience in terms of the physical objects present as causal agents. This thematic information could only be obtained by examining individual experiences. Unfortunately, interpreting themes was not as easy as classifying objects into physical categories. While some themes were readily apparent, some were implied or understated. Some descriptions had several themes; others apparently had none. Despite the inherent subjectivity of this task, we felt there was some value and interest in analyzing the content of themes.

In some cases, themes paralleled rating-scale items: the insignificance of the individual in a vast landscape, an intense absorption of the consciousness of the event, a sudden surprisingness, a feeling of oneness with nature, and symbolic and artistic renditions of the experience of physical objects. In other cases, themes had nothing to do with the rating-scale items. One frequent theme described a new-found awareness of looking at familiar objects from a different perspective:

As I approached the tree, I noticed it was a burr oak of an unbelievable size. I've walked by this tree how many times without really noticing its size and form, but this particular time I became an insignificant figure as I looked up the tree while standing next to the trunk.

Another common new theme dealt with rebirth and the changing of the seasons:

I went for lunch in the Lakefront Cafeteria in Memorial Union, and as I was sitting at the table looking out the windows, I suddenly noticed that the lake had completely unfrozen and the shore was full of students, lively and colorful. The lake was so alive, so full of motion; this meant for me the end of winter, the bursting of new life in the form of spring again.

The above quotation also illustrates another common theme in the prose descriptions: the aesthetic experience of perceiving movement of

objects. The subjects frequently described movement and sequence, along with the experience of other extravisceral sensations such as sounds and smells, showing that the aesthetic experience was truly a multimodal phenomenon.

Emotional responses associated with the aesthetic experience were frequently included in prose descriptions. Some experiences had happy themes such as pleasantness, serenity, or romanticism, while others showed feelings of fear, sadness, and death. Although some themes were more common than others, collectively they were best characterized by their great variety.

Ecology of the Aesthetic Experience.

Of the 25 subjects in this study, 20 recorded at least one aesthetic experience. Two subjects wrote in their diaries that they had no aesthetic experiences during the course of the semester; one of these insisted that he had never experienced anything like the working definition given in the diary instructions and in class. The remaining three turned in blank diaries and either had no experiences or chose not to participate.

The number of aesthetic experiences per subject among those who reported having them ranged from 1 to 22, with a mean of 9.6. Ten subjects had fewer than 5 experiences during the nine weeks, while only four subjects had more than 10.

The distribution of experiences was skewed toward the weekend, with nearly 50 percent of aesthetic experiences occurring on Friday, Saturday, or Sunday. The experiences occurred most often on Saturdays (20%) and least often on Mondays (11%).

Aesthetic experiences seemed to be fairly well distributed throughout the daylight hours, with noticeable peaks between 8 and 9 a.m. (15%), 1 and 2 p.m. (20%), and around sunset between 6 and 7 p.m. (11%). Less than 10 percent of the reported experiences occurred after dark.

Aesthetic experiences also occurred most often when the individual stepped out of his or her normal pattern of activity, particularly during leisure time and while traveling (65%). Although the place where the experience occurred did not usually have any special meaning for the individual, 44

percent of the experiences occurred in "very familiar" places.

Finally, the aesthetic experience appears to be a solitary phenomenon; more than 50 percent occurred while the subject was alone, and in more than 75 percent the subject was either alone or with one close friend. This finding from the structured-scale responses was frequently reiterated in the prose descriptions, as exemplified by the following excerpts:

The presence of my friend made me feel more secure, and allowed me to have this experience.

I suddenly noticed that I was the only one in the area where usually people are fighting their way through crowds to get to class. It was then that I became aware of the environment that I usually only glance at when I walk through. I focused on the trees that I never saw before, and heard a bird chirping from above.

I felt very humbled looking out over the valley and realizing that I was only a very small part of the world. The whole experience would have been much more intense, but there were three men hiking in front [of me and my boyfriend] that were talking and making a lot of noise.

Object of the Experience. Landscape objects responsible for aesthetic experiences tended to be "dynamic" (51%) and "ephemeral" (53%) rather than "static" (35%) and "permanent" (29%). In addition, many more experiences were related to natural objects (65%) rather than to man-made ones (20%). In many cases, the aesthetic experience was not due to a specific object in the landscape (38%) seen at a micro scale; the object tended to be the whole area of the landscape (54%) seen in a macro perspective (51%). Finally, most objects were considered beautiful; few (1%) were considered ugly.

In classifying the objects of their aesthetic experiences, the respondents most frequently chose the construct "physical" as most relevant (31%). Only a few experiences were thought of primarily as "symbolic" (7%) or in terms of "past associations" (4%). In most experiences two, three, and even four other terms applied in addition to

the one most relevant. Physical terms applied 82 percent of the time, psychological 73 percent, artistic 51 percent, symbolic 53 percent, and past associations 59 percent of the time.

An attempt was made to further clarify the object of the aesthetic experience by analyzing the prose descriptions for the type(s) of objects that contributed to the aesthetic experience. These objects were assigned to seven broad categories:

1. *Vegetation* (21%): e.g., flowers, single trees, forest, marsh, prairie
2. *Water* (32%): e.g., lakes, rivers, ponds, ocean
3. *Wildlife* (18%): e.g., birds, pets, deer, other
4. *Artifacts and people* (19%): e.g., buildings (historic, modern, vernacular), people, various land uses
5. *Sensations* (12%): e.g., colors, sounds, smells, motion
6. *Ephemerals* (30%): e.g., changing of seasons, clouds, sunsets, weather, precipitation
7. *Compositions* (30%): natural and built landscapes where the stated emphasis was on the whole scene rather than on specific objects.

Because several objects could be mentioned in one description, the percentages add to more than 100 percent.

This classifying of objects confirmed the structured-response data in that most aesthetic objects came from the natural domain and that the whole landscape produced many aesthetic experiences. This classification also revealed several findings not obvious in the structured-response data. For instance, certain objects consistently were reported as the stimulus for aesthetic experiences. Of 135 experiences, 14 percent involved the lakes adjacent to the campus. Fourteen percent also involved birds, particularly ducks (again, due in part to the proximity of lakes), 11 percent sunsets, 10 percent signs of seasonal change (ice breaking up on lakes, trees and flowers in bloom), and 10 percent precipitation (rain, snow, fog). Compositional landscapes frequently mentioned included valley views, superior views, and city lights at night.

Value of the Aesthetic Experience. A

final issue addressed in the study concerned the value of the aesthetic experience to the subject. One structured-scale question was framed in terms of relative value: "How valuable was your aesthetic experience in relation to the best thing you experienced in the last week?" According to the results, 40 percent of the experiences were as valuable as or more valuable than the subjects' "best of the week." Subjects described in a word or phrase their best nonaesthetic experience of the week, among them moments of affection (with lovers, friends, relatives), personal achievements (good test grade, athletic achievement, personal goal accomplished), and social interactions (parties, good conversations, dinner with friends).

Mood changes provided a second measure of the value of aesthetic experiences. Subjects were asked to rate their mood before and after their experiences. In 77 percent of the cases, subjects reported feeling in a "better" or "much better" mood afterwards. One such positive mood change was described by a participant:

One sleepy morning I stumbled to the bus stop at 7:05 a. m. I felt peeved and annoyed at my exhausting schedule. As my mood became more and more disgruntled I happened to glance at a simple bright red bush which held my attention for a fleeting moment. It stood out sharply against the pale morning colors and reminded me that nature doesn't follow difficult time limits but exists and continues indefinitely. It somehow seemed to tell me not to worry about or get upset at small, daily, time deadlines. I felt more relaxed and reassured that everything will be okay in the long run and I was somehow better prepared to face the day.

Given that 40 percent of our subjects' outdoor aesthetic experiences were valued as much as or more than significant nonaesthetic experiences, including moments of affection, and that most of these experiences resulted in a positive mood change, further inquiry appears justified. Even if all aesthetic experiences are not "peak" ones, the data do suggest that they stand out from the ordinary experiences of everyday life and are worthy of greater attention from those concerned with the effects of the environment on

the well-being of its human inhabitants.

Summary and Conclusion

Many federal, state, and local landscape policies and assessment procedures assume that people value aesthetically pleasing landscapes. Part of that value may reside in the notion that people are more likely to achieve a special kind of experience in beautiful places than elsewhere. Although philosophers and a few psychologists have written extensively about this phenomenon under the rubric of aesthetic experience, neither the nature nor the ecology of such experiences has been the subject of empirical investigation. But if aesthetic experiences are highly valued, stand out from the flow of daily experiences, and are likely to be related to environmental conditions over which environmental designers, planners, and managers have some degree of control, the systematic investigation of aesthetic experiences seems long overdue.

The research reported here suggests that people do have experiences that may be called aesthetic and that these experiences are not only valued but are also memorable. Although the small number of experiences reported by some subjects made it improper to apply more sophisticated statistical analyses, there apparently is significant variation in the quality of experiences among people and for an individual over time. Further research might be directed at establishing typologies of experience and explaining the variation on the basis of environmental variables.

In addition to variability in the nature of aesthetic experiences, there appears to be an ecology of experience. Aesthetic experiences are not evenly distributed either in time or by social circumstances. One implication of the latter for recreation management is disturbing. While many areas selected by landscape assessment techniques for their beauty might be set aside for recreation, the admission of large numbers of people may actually reduce the opportunity for aesthetic experiences.

The results pertaining to the object of aesthetic experience have implications for further research in landscape evaluation. Many experiences occurred in connection with ephemeral events and included senses other than vision. Most assessment techniques to date have ignored these facets of the landscape in the development of applied tools or research to understand human responses to the outdoor environment, perhaps because we can exercise little control over such ephemeral events. We can, however, manipulate opportunities to be exposed to these events and their colors, smells, sounds, and motions. Some research has begun, such as that on sound (Anderson, Mulligan, Goodman, and Regan 1983; Orland and Esposito 1984), but much more needs to be done.

Finally, one pattern of results concerning the nature, object, and ecology of aesthetic experience indicates the importance of managing "everyday" environments for aesthetic quality. Our results showed that aesthetic experiences tended to occur unexpectedly rather than being sought out by a person, occurred most often as a result of interactions with natural objects, and tended to occur in familiar places. Together, these findings suggest that opportunities should be provided for people to experience nature in their home environments as part of their everyday activities. The importance of providing "nature at the doorstep" (Kaplan 1985) should not be underestimated.

Landscape policies have often been aimed at setting aside specially selected areas such as works of art, while ignoring the opportunities for aesthetic experiences in the rest of the landscape. Further research on the nature and ecology of aesthetic experience may suggest that a different policy perspective is needed.

References

- Adler, M. 1981. *Six Great Ideas*. New York: Macmillan.
- Anderson, L. M., B. E. Mulligan, L. S. Goodman, and H. Z. Regan. 1983. "Effects of Sound on Preferences for Outdoor Settings." *Environment and Behavior* 15(5): 539-566.
- Barker, R. G. 1968. *Ecological Psychology: Concepts and Methods for Studying the Environments of Human Behavior*. Stanford, California: Stanford University Press.
- Beardsley, M. C. 1970. "Aesthetic Theory and Educational Theory." In *Aesthetic Concepts and Education*, R. A. Smith, ed. Urbana, Illinois: University of Illinois Press.
- Berger, J. L. and R. Schreyer. 1986. *The Experiential Aspects of Recreation: A Review of Relevant Literature and Suggestions for Future Research*. Logan, Utah: Utah State University, Department of Forest Resources.
- Berlyne, D. E. 1960. *Conflict, Arousal, and Curiosity*. New York: McGraw Hill.
- Boyle, K. J. and R. C. Bishop. 1984. *Lower Wisconsin River Recreation: Economic Impacts and Scenic Values*. Staff Paper Series No. 216. Madison, Wisconsin: University of Wisconsin Department of Agricultural Economics.
- Carlson, A. A. 1979. "Formal Qualities in the Natural Environment." *Journal of Aesthetic Education* 13(3): 99-114.
- Csikszentmihalyi, M. 1975. *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass.
- Daniel, T. C. and R. S. Boster. 1976. *Measuring Landscape Esthetics: The Scenic Beauty Estimation Method*. USDA Forest Service Research Paper RM-167. Fort Collins, Colorado: Rocky Mountain Forest and Range Experiment Station.
- Dickie, G. 1969. "The Myth of the Aesthetic Attitude." In *Introductory Readings in Aesthetics* (pp. 28-45), J. Hospers, ed. New York: Free Press.
- Gobster, P. H. and R. E. Chenoweth. 1989. "The Dimensions of Aesthetic Preference: A Quantitative Analysis." *Journal of Environmental Management* 29: 47-72.
- Gunter, B. G. 1987. "The Leisure Experience: Selected Properties." *Journal of Leisure Research* 19(2): 115-130.
- Hepburne, R. W. 1968. "Aesthetic Appreciation of Nature." In *Aesthetics in the Modern World* (pp. 49-66), H. Osborne, ed. London: Thames and Hudson.
- Hervner, K. 1937. "The Aesthetic Experience: A Psychological Description." *Psychological Review* 44(3): 245-263.
- Hull, R. B. IV, G. J. Buhyoff, and H. K. Cordell. 1987. "Psychophysical Models: An Example With Scenic Beauty Perceptions of Roadside Pine Forests." *Landscape Journal* 6(1): 113-122.
- Ittelson, W. H. 1973. *Environment and Cognition*. New York: Seminar Press.
- James, W. 1890. *Principles of Psychology*. New York: Hall.
- Kant, I. 1964. Selections from *Critique of Judgment*, translated by J. H. Bernard. In *Philosophies of Art and Beauty*. A. Hofstadter and R. Kuhn, eds. Chicago: University of Chicago Press.
- Kaplan, R. 1985. "Nature at the Doorstep: Residential Satisfaction and the Nearby Environment." *Journal of Architectural and Planning Research* 2: 115-127.
- Kaplan, S. and R. Kaplan. 1982. *Environment and Cognition: Functioning in an Uncertain World*. New York: Praeger.
- Lowenthal, D. 1985. *The Past Is a Foreign Country*. Cambridge, England: Cambridge University Press.
- Maslow, A. H. 1968. *Toward a Psychology of Being*. Princeton, New Jersey: Van Nostrand.
- Orland, B. and C. Esposito. 1984. "An Investigation Into the Role of Sound in Landscape Perception." In *CELA '84: Proceedings of the Conference of Educators in Landscape Architecture* (pp. 407-414). Guelph, Ontario: University of Guelph School of Landscape Architecture.
- Osborne, H. 1970. *The Art of Appreciation*. New York: Oxford University Press.
- Stolnitz, J. 1969. "The Aesthetic Attitude." In *Introductory Readings in Aesthetics* (pp. 17-27), J. Hospers, ed. New York: Free Press.
- Tinsley, H. E. A. and D. J. Tinsley. 1986. "A Theory of the Attributes, Benefits, and Causes of Leisure Experience." *Leisure Sciences* 8: 1-45.
- Tuan, Y. F. 1974. *Topophilia: A Study of Environmental Perception, Attitudes, and Values*. Englewood Cliffs, New Jersey: Prentice-Hall.
- USDA Forest Service. 1974. "The Visual Management System." *National Forest Landscape Management*, Volume 2, Chapter One. Washington D.C.: U.S. Government Printing Office.
- Webb, E. J., D. T. Campbell, R. D. Schwartz, and L. Sechrest. 1966. *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Chicago: Rand McNally.
- Zube, E. H. 1984. "Themes in Landscape Assessment Theory." *Landscape Journal* 3(2): 104-110.
- Zube, E. H., J. L. Sell, and J. G. Taylor. 1982. "Landscape Perception: Research, Application and Theory." *Landscape Planning* 9: 1-33.