Recreation Settings, Scenery, and Visitor Experiences: A Research Assessment

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Abstract

A core task of recreation research is to understand the relation between settings, scenery, and visitor experiences. This paper uses environmental psychology to describe four conceptual models underlying these relations: inherent/aesthetic, opportunity/goal-directed, symbolic, and expressive. The paper then describes some challenges to applying results to recreation resource management.

Introduction

Understanding the relation between the recreation setting and recreation experience, I would argue, has been the core theme in forest-based outdoor recreation research for over 35 years. This topic is at the heart of understanding recreation visitors. It has dominated the Forest Service's recreation research program from its founding in the late 1960s and is ensconced in the practice of recreation resource management by way of the Recreation Opportunity Spectrum (ROS) concept. Recreation resource managers administer recreation resources such as campgrounds, wilderness areas, rivers, and trails, and require specific information on how the resource functions to provide satisfying recreation experiences. In other words, managers require information on the relation between recreation settings (resources and their characteristics) and the psychological outcomes motivating recreation participation in that setting. Managers also need information on how management practices such as facility improvement, fees, use regulations, and interpretive services (all managerial features of the setting) promote or inhibit visitors' desired experiences.

The purpose of this paper is to provide a brief overview of the state-of-knowledge on settings, scenery, and visitor experiences, and to identify continuing and emerging research issues related to this topic. Although this topic overlaps somewhat with others at this workshop (e.g., benefits, environmental attitudes, cultural diversity), this overview is organized from the perspective of environmental psychology. In my view, environmental psychology is principally about understanding the relation between environments (settings) and user experiences (for the sake of simplicity, throughout this discussion I will generally use terms such as *setting* and *environment* to include scenery). As a field of research, environmental psychology looks at a range of environments (urban, indoor, institutional settings), but the core research agenda is very consistent with the theme of outdoor settings and recreation experiences. Environmental psychology takes an equally broad interpretation of experience.

Environmental experience as a psychological phenomenon is concerned with what happens to an individual cognitively, emotionally, and behaviorally, and how such behaviors and mental states are

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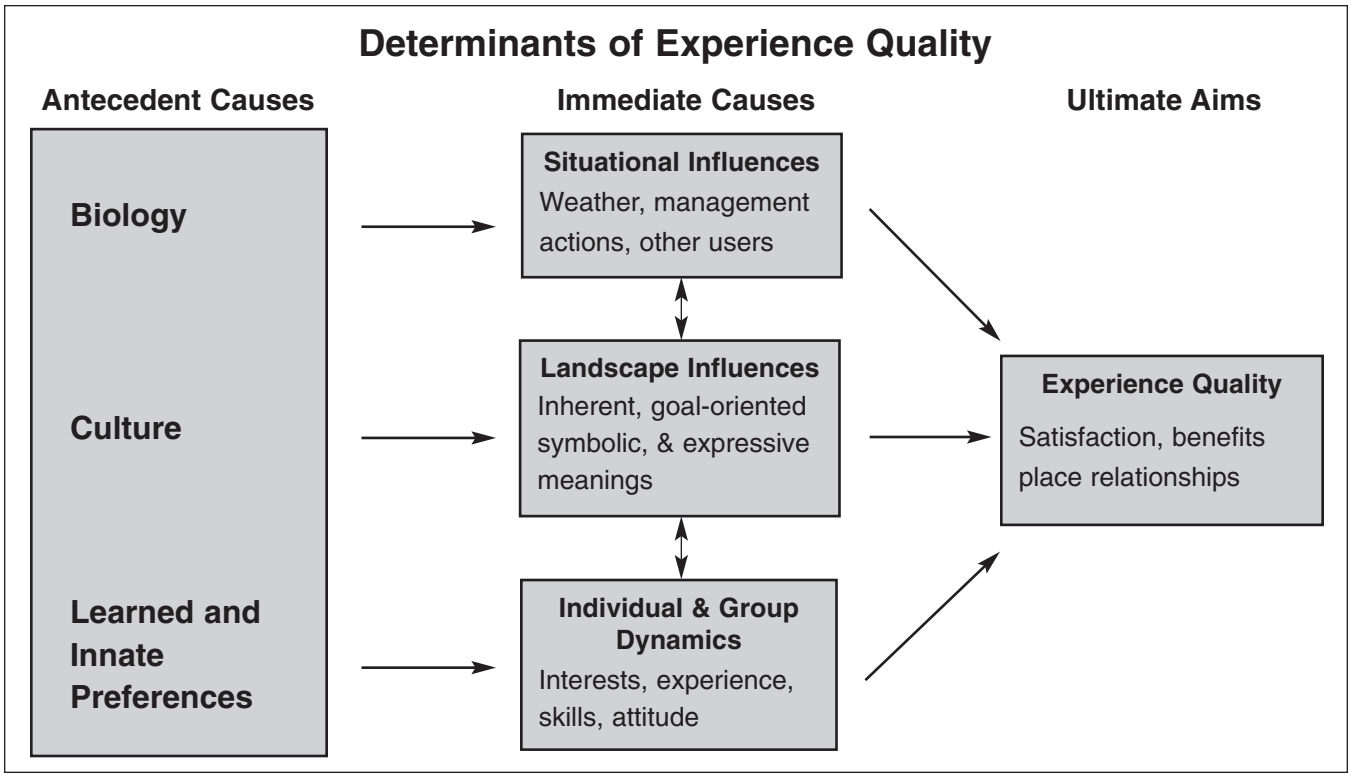

Figure 1—Determinants of Experience Quality.

influenced by environmental conditions and events. These experiences range from the immediate emotional reactions of joy and satisfaction in a setting to the enduring changes in an individual's well-being (what recreation researchers often refer to as benefits). Note these experiences are not always positive and may include such experiences as conflict, crowding, dissatisfaction, and even physical and psychological harm.

A key aspect of understanding the relation between settings and experience is recognizing that experience is not merely a psychological *reaction* to the setting (i.e., in a stimulus-response sense), but something *created* by the individual or group through active engagement with the setting. Figure 1 suggests that the quality of an experience is the result of three categories of immediate cause: situational influences such as weather and the actions of other people in the setting; individual and group characteristics (e.g., interests, skills and attitudes of the individual and significant companions) as well as the dynamics among group members; and landscape or setting influences that concern resource managers. In addition, how the participant reacts to these various conditions is influenced by deeper antecedent causes associated with culture, biology, learning, and personality. Among skilled participants, experience quality is not singularly dependent on environmental (setting) conditions. Rather, participants can use their acquired knowledge and skills to adapt their behavior to the circumstances they find in a way that enhances their experience (and successful adaptation may itself be part of the satisfaction that participants receive). As Ittelson (1976: 187) wrote, environmental experience is "that product of an active endeavor by an individual to create for himself a situation within which he can optimally function and

achieve his own pattern of satisfaction." This contrasts with much of the recreation and consumer behavior literature which has often conceived of satisfaction as mostly a one-time evaluation of the degree to which one received what one expected (Williams 1989). But research suggests that satisfaction is more a dynamic and fluid process (Patterson et al. 1998, Stewart 1998) and derived as much from the mere pursuit of goals as their attainment (Omodei and Wearing 1990).

The central task in setting-experience research is establishing the nature of the relation or link between the settings (objects, stimuli) and the psychological response of the subjects (i.e., visitors and their experience). Researchers employ a number of metaphors to describe relations between the environment and the subjects using them. For example, we might think of subjects as visitors, customers, stakeholders, community residents, or citizens. Each implies something different about the relation to managers and the setting. Visitors are only temporary guests. Customers pay and expect service, but incur no obligations to the provider. Stakeholders have interests that compete with other stakeholders. Community residents have intimacy, knowledge, and a sense of possession. Citizens may have competing interests like stakeholders but also duties to the greater good of society. Likewise we can employ various metaphors to describe the settings. Resources are tradable and fungible. Watersheds suggest spatially bounded natural units. Ecosystems are systemic, if not spatially bounded. Landscapes connote larger scale areas that are shaped by natural and social forces. Similarly, places imply areas with histories and meanings that are socially and culturally produced.

Although these metaphors are an aid to thinking, when using these or other various metaphors to establish setting-experience links, we risk missing important details. For example, when we work from the metaphors of resource and visitor/customer we get corresponding social and biophysical assessment that connect the two in terms of attribute and experience preferences that one could find in a variety of specific settings. They do not tell us what is endemic to a particular setting. For example, many areas could be said to possess naturalness, remoteness, solitude, and challenge. Using a place or community metaphor, recreationists experience and come to know and value actual places. Such places are experienced at a variety of scales from a site level (e.g., Brainerd Lake or the Black River) to a regional or landscape level (e.g., Boundary Waters, Bob Marshall Wilderness, or Black Hills National Forest). The significance of specific places, which people come to know through experience, is not easily captured in resource and social assessments such as ROS and Scenery Management System (SMS) that focus on their general attributes (e.g., remoteness, scenic beauty). Rather for people who know and use an area, its significance is more likely captured in narrative form (histories) as meanings, practices, and rituals. The challenge for recreation managers is to develop a more comprehensive understanding of the link between setting and experience.

Models of Environment-Experience Relationships

Environmental psychology as a discipline offers a range of approaches to help capture the different metaphors or modes of human-environment relationships. Each mode represents or captures some kinds of meanings and experiences better than others. I have described four such modes in detail elsewhere (see Williams 2004, Williams and Patterson 1999). Below I give a brief summary of each.

Inherent/Aesthetic Mode

Landscape aesthetics and scenic quality have been vigorous and important research topics within environmental psychology. Much of this research has followed an adaptive paradigm in environmental psychology

(Saegert and Winkel 1990). Human perceptions and preferences are seen as having adapted to facilitate functioning and survival in an uncertain information environment and to account for what were biologically inherent approaches and avoidance tendencies in reaction to environmental stimuli. One implication of this is that human responses to viewing natural landscapes are theorized to be more preferred, pleasant, and beneficial than responses to viewing highly modified or developed landscapes. As adaptive responses, aesthetic experiences are seen as determined by multiple stimulus properties (e.g., intensity, pattern or complexity, color, etc.). Knowledge about the underlying environmental determinants of aesthetic responses to the landscape is considered objective and highly generalizable across time and place (Daniel and Vining 1983).

From these assumptions, aesthetic meanings can be characterized as relatively tangible, commonly held, and emotionally evocative. First, aesthetic meanings are readily tied to on-the-ground (tangible) features of the setting that allow researchers to make generalizable predictions about the environmental factors that influence scenic quality (Daniel 2004, Hull 1989). Second, despite the common dictum that "beauty is in the eyes of the beholder," empirically-based scenic beauty research indicates that different observers generally make similar aesthetic judgments (Daniel and Vining 1983, Ulrich 1993). Third, scenic or aesthetic responses are associated with immediate feelings of pleasantness and interest that appear to be innate psychological reactions (i.e., involving minimal cognitive processing) to landscape properties (Ulrich et al. 1991).

Aesthetic models appear to describe important meanings of the setting with considerable reliability, sensitivity, and commonality (Daniel and Vining 1983). Aesthetics research at this point supports the notion that aesthetic meanings can be sufficiently isolated from other meanings of the landscape to warrant some attempt to inventory them. Further, aesthetic types of meanings are tangible (in that they can be mapped onto the landscape using formal, psychophysical, and psychological theories of beauty), emotionally potent, and provide a widely shared and valued basis for natural resource decisionmaking. Thus, a fully integrated assessment of a recreation resource should include some effort to map the aesthetic meanings or scenic values of the landscape under consideration. Still, recreation experience is about much more than scenery, which leads us to investigate additional modes of environment-experience relationships.

Instrumental/Goal-Directed Mode

The approach to instrumental/goal-direct mode closely follows what Saegert and Winkel (1990) identified as the opportunity structure/goal-directed paradigm within environmental psychology. Humans are viewed as rational planners who select the best options within a system of resource opportunities and constraints. Environmental appraisals are made based on the goal-fulfilling potential of the environment. This approach is conceptually similar to the utilitarian tradition that has historically guided resource management. Consequently, the social science of evaluating instrumental goals is quite well-developed, drawing from social psychology and microeconomics (see Williams and Patterson 1996).

Within the instrumental mode (and much like the aesthetic approach), setting experiences reflect tangible, goal-related properties of the environment. For the instrumental goal of producing timber, resource managers collect a wealth of data on the biophysical properties of the land to project or forecast yields of timber. Likewise recreation and amenity assessments such as ROS often assume an instrumental or goal-directed relation to the environment—a lake or stream affords fishing; remoteness affords solitude (Driver et al.1987). Although social and cultural groups often hold shared "theories" of meaning (e.g., that nature affords solitude), these are not universal across groups or constant over time. For example, in some cultures,

nature might be seen as facilitating social interactions. Regardless of social or cultural backgrounds, individuals often differ in the extent to which they value a particular culturally defined meaning (goal). Similarly, any given setting can potentially fulfill a wide range of competing goals. Consequently, conflict sometimes ensues over how to prioritize management goals.

Recreation management has greatly benefited from assessments based on goal-directed relations such as the ROS system. As noted in the introduction, however, this view builds on a consumer metaphor that assumes settings are theoretically interchangeable (fungible) when the replacement provides a similar combination of goal-fulfilling attributes. But resources are also places and ecosystems to which people assign unique (non-fungible) meanings. There is only one Yellowstone National Park. Some meanings associated with an environment do not derive so much from how it can be used but simply what it represents symbolically to an individual, family, or cultural group. Meaning reduced to utility to meet goals fails to adequately address the emotional, symbolic, and spiritual values of wildlands that people associate with specific places. Unfortunately these are much harder to identify, but often represent important sources of conflict among users.

Cultural/Symbolic Mode

Inherent/aesthetic and instrumental/goal-directed resource inventories represent important and widely used procedures for characterizing the meaning and value of natural resources for recreation. But to tap the more intangible meanings a third way of characterizing human-environment relations within environmental psychology involves identifying social, cultural or symbolic meanings (Saegert and Winkel 1990, Stokols 1990). From this sociocultural perspective, for example, the same forest stand can symbolize ancestral ways of life, valued commodities, recreational opportunity, or essential livelihood to different groups of people. Thus, an environment can acquire varied and competing social and political meaning through its association over time with particular activities or groups. The question is not merely what the setting can be used for now, but how has it been used and valued in the past (McAvoy 2002)?

Within the field of environmental design and management, Stokols describes the symbolic approach as one that views the environment as an end in itself rather than as a tool – "as a context in which fundamental human values can be cultivated and the human spirit can be enriched" (Stokols 1990: 642). From the sociocultural view, natural resources are valued not only for instrumental purposes, but also exist as *places* that people become attracted to and even attached to because such places possess emotional, symbolic, and spiritual meaning. Despite increasing recognition that symbolic meanings of the environment are important, managers lack available tools to represent them in resource assessments and decision-making. However, researchers and managers have been exploring new ways to map sociocultural meanings and special places (Eisenhaur et al. 2000, Hall et al. n.d., Kent and Preister 1999).

Individual/Expressive Mode

Like the sociocultural approach, interest in individual expressive meanings poses a large challenge for resource assessment as recreationists develop and assign intangible and relatively unique meaning to places (Eisenhaur et al. 2000). Unlike aesthetic and instrumental meanings, expressive meanings do not apply so much to abstract classes of environments or their separable features as they do to specific places, often as a result of personal history and familiarity accumulated over time. Interest in individually held meanings has often focused on concepts of place attachment. Place attachment can be thought of as an emotional dimension of meaning—as an indication of the intensity, depth, or extent of meaning—with symbolic and spiritual meanings associated with high levels of attachment (Williams and Vaske 2003). These

attachments can be distinguished from other emotional reactions (i.e., scenic beauty, subjective utility) by the emphasis of the former on enduring bonds, ties, and links. In contrast, scenic beauty research reflects the perspective of a temporary visitor reacting primarily on the basis of appearance and immediate, short-lived emotional responses. On the other hand, attachment refers to enduring feelings associated with a place which develop through interaction with the setting over time.

It is sometimes noted that individual meanings are difficult to consider in environmental planning and management because they are potentially unique to individuals. What is a manager to do if each person has his or her own meaning for a setting? Because past experience in a given setting is fairly unique to each individual, people may assign individualized meanings to environments and respond to resource management issues on the basis of these meanings. Still, just because meanings can, in theory, be different for each person, it does not indicate that meaning are different in all or even most cases. And even if the place means something different to different people, they often share a sense that the place is special. In any case, it may be important at times to recognize individual variations in meanings when making land-use decisions. People resist management actions that threaten their sense of self (Appleyard 1979).

Implications for Recreation Management and Planning

With this broad overview of research approaches for studying the environment-experience relationship, I now turn to the managerial issues that Rachel Kennon Franchina and Noelle Meier presented in this workshop session. Based on an informal survey of colleagues, they identified four basic management concerns pertaining to settings, scenery, and visitor experiences:

1. What degree of landscape change will people accept, and how much does the public understand about those changes?
2. How might we enhance visitor experience as well as our agency image?
3. How do we enhance experiences in a manner that reduces damage to natural resources and social settings?
4. Are visitor expectations lowering due to the commonness of impacts and developments? Does that affect use and behavior?

These appear to be issues managers have long struggled with; however, managers may sense new urgency to address them because of both increasing ecological disturbance and accelerating social change. In fact, these issues have been the subject of considerable social science research for over 30 years. That body of research has been reviewed and synthesized in numeous books and proceedings (see Glaspell and Puttkammer 2001, Hammitt and Cole 1998, Hendee and Dawson 2002, Manfredo et al. 2004, Manning 1999, Shelby and Heberlein 1986, Watson 1989). Thus, the interesting question may be why managers feel they still lack solutions to these problems? Has research produced answers to these questions? And if so, are managers unaware of potential solutions that research has to offer?

Research has indeed produced some answers to these issues, but not necessarily the answers managers were hoping for. Managers confront intractable problems that defy technical resolution, which is probably why the same problems keep showing up on lists of issues. Even though research rarely provides tidy solutions to such problems, that does not mean research cannot offer insights and strategies to deal with them. However, the way researchers and managers sometimes frame the research issues can be problematic. For example, by employing a consumer metaphor in an arena of public goods, we assume more responsibility for the quality of experience than

is reasonable. Or, by trying to find technical solutions to basically political problems, we give too little attention to how to bring citizens together and work out their differences. Below I offer a few comments about each of the four management questions in an effort to illustrate what I mean.

Regarding the first question, research shows that different people will accept different degrees of change. In fact, landscape changes are happening all the time, so at some level people must come to accept change. Further, the problem is one in which what people will accept varies by the kind of change (e.g., natural change, visitor impacts, or other nonrecreational uses) and what people will accept also varies from place to place. As Kennon Franchina and Meier note, it is this latter feature that really causes problems for managers because it is very difficult to generalize research findings from one situation to another. Perhaps the underlying question is how are various changes linked to the meanings people ascribe to the landscape? To illustrate the difficulty, some preliminary findings on a study of fire and recreationists' sense of place show that some anticipate that a wildfire would be devastating to their sense of place, but others see wildfire as inherent feature of that place and therefore something they accept as a possibility. Thus, the problem is that in each situation managers have to figure out what kinds of change will be resisted and what kinds of change, if any, are more acceptable and by whom. Broad guidelines can be found with respect to both visual quality research (see Hull 1989) and much of the wilderness management research (Hammitt and Cole 1998). But short of doing site-specific research on the specific populations involved, very general insights are the most we can offer. Over time, research may be able to refine these guidelines, but they will never replace site or population specific information.

The second question implies that managers take considerable responsibility for experience quality. Figure 1 suggests that the quality of an experience is influenced by many causes not directly controlled by management. Our tendency to think in terms of delivering visitor experiences, in part, reflects a prevailing consumer metaphor for recreation resource management—managers presumably provide the opportunities for visitors (consumers) to obtain certain experiences and are then judged by those consumers on the performance of the resource and management efforts in meeting consumer expectations. But unlike a consumer-oriented business, which gets to choose which customers it is most able to serve (and make a profit), government agencies by their nature must try to serve all the people, and not just by providing recreation but a wide range of "ecosystem" services that come from the area. Likewise, as citizens we have responsibilities to our government and fellow citizens that, in this case, might include a duty to protect and perpetuate the public values—as consumers we do not have responsibility to help a business succeed. Managers could employ other metaphors, such as *performance*, that would recognize the role of the visitors in creating their own experience (we call it re-creation for a reason).

Recreationists bring a variety of skills to the situation and have knowledge of the place and setting that may allow them to maximize the quality of their experience despite unexpected conditions. In fact, a quality experience may include a sense of overcoming conditions they did not anticipate (Patterson et al. 1998). Clearly the quality of experience is significantly influenced by the setting, but the problem is that the nature of this relationship varies from person to person and situation to situation. Thus, "within the boundaries set by the environment, recreationists are free to experience the world in highly individual, unique, and variable ways [which suggests a need] for a research approach capable of capturing unexpected variations" (Patterson et al. 1998: 445). As with the acceptability of landscape change noted above, research has produced some general guidelines and principles to follow, including the idea that recreation is a multiphase experience. Building on the general theme of the paper, the key to addressing this problem is to strive

to recognize the wide variety of relationships visitors have with settings in our resource assessments and to create more opportunity for people to participate in the decision process.

My assessment of the third question is closely related to the second. Some of the influences on visitor experience come not so directly from what mangers do with the resource but from growing competition and conflict among users. Competition for access and conflicts over uses need to be addressed through good public participation. People need information and skills that allow them to adapt to the social conditions they find. But with growing demand, there will always be crowding and conflict. This is another reminder that public recreation management is not like the commercial world where who gets to use the facilities can be controlled. Instead recreation management decisions are ultimately political. Who gets access and who does not is, in the end, a policy decision without a right or wrong answer that can be rendered by science.

Finally, the problem of lost naturalness is the same as the first question in many ways: it involves the acceptance of change. Some change is inevitable, and there is little that managers can do. Some changes harm some users more than others, and we are back to who gets to decide which changes we are going to try to limit. Here again we are talking about an intractable situation in which growing demands on a resource cannot be accommodated without change in that resource or severe restrictions on access and use. Again, the problem boils down to political conflicts between who gets to use what and how they use it.

Given these dilemmas, there are two persistent questions being asked at this workshop: (1) what is the role of research in management, and (2) how can managers make better use of what has already been studied? As I see it, there is something of a disconnect between what social science can do for management and what managers hope to get from research. So far I have emphasized that the problems managers face are often intractable policy dilemmas which research has limited potential to remedy. No doubt, research does help clarify the nature of these problems, and 35 years of research has produced important insights used by managers every day—managers may not even realize where those insights came from. Much of what constitutes the practice of recreation management has been built up through decades of management experience as well as interactions between researchers and managers. These insights reflect less formal practical experience as well as research and experience documented in various books (see Manning 1999) and technical guides (see RWHR, n.d.).

The problem of gaining access to research results was an important theme identified in the survey conducted by Rachel Kennon Franchina and Noelle Meier. In their presentation, they identified three perceptions managers have about utilization of research:

1. Research does not seem to support resolution of managerial problems.
2. Managers need improved access to what is already known.
3. Managers need greater access to decision-relevant and geographically specific information and insights.

I have already alluded to the first issue in stressing the politically intractable nature of recreation resource management problems. No amount of research can extricate managers from what are essentially social and political conflicts over meanings, values, and uses. But I think we can ease this problem by improving our assessment tools and decision approaches to make them more participatory, dialogic, and collaborative. In other words, the task here is to apply research not to finding technical solutions to what amount to “wicked” management problems, but to improving our decision and planning processes to make them more transparent, inclusive, and democratic.

Published research is often unhelpful because the task of management is fundamentally one of prescribing a course of action to fit inevitably unique situations.

To a certain extent, each place is different, yet what gets published tends to be those findings that have some relevance to a broader community of research. What managers often need is a set of practices that empower them to systematically explore the specific situation at hand and develop management prescriptions tailored to local conditions. What research can contribute is the development and evaluation of potential tools for case-specific analyses.

In the conclusions to their workshop presentation, Kennon-Franchina and Meier made similar recommendations for improving the interactions between research and management. The most crucial among the recommendations, in my view, is the idea of developing methods for conducting local social assessments. Specifically they identified the concept of rapid assessment as a tool with some potential. In fact such tools already exist and have even been applied to recreation management (Taplin et al. 2002). As a community of practice, however, we lack experience and training in their use. Until recently, the field has tended to avoid case-based, contextually tailored qualitative methods in a misguided belief that they did not reflect "sound science" and therefore were invalid and would not hold up under public scrutiny. But such attitudes are a lingering remnant of the discredited ideology of scientific management that still infuses the practice of natural resource management. As Hummel (1991) points out, this represents a failure to adequately distinguish between the conduct of science and the practice of management. In the realm of application and decisionmaking, the experience of managers is not only as valid as science, it is often more relevant because it focuses on the specific situation.

Second, access to existing knowledge is part of a broader knowledge management issue in any community of practice. The problem is more a matter of training than retrieval. The fact is researchers do not have ready access to existing knowledge. And, existing knowledge almost always requires synthesis and refinement to be applied to a given situation. Interpretation, synthesis, and application of the existing body of research, even for the scientist, requires three things: broad familiarity with the research domain, knowledge of basic theory and research methods, and time to identify the specific situation and synthesize the relevant knowledge. Moreover, scientists cannot generate an interpretation of research suitable to each situation in which managers might find themselves. Drawing again on Hummel (1991), the task of the scientist is one of taking reality apart to extract general insights. In contrast, the manager's world involves putting reality together and producing a synthesis of knowledge relevant to the situation at hand. Much of that knowledge is local and therefore outside of the systematized body of science. Managers need training in gathering and synthesizing both the relevant science and the relevant local knowledge. This requires an investment in research and management capacity.

Take one recent example: unmanaged recreation. There is no existing synthesis of research with that label, but given my experience and familiarity with recreation research, I know a few basic areas where we should probably look to begin to assess what we know and do not know about this problem. Two well-established research topics come to mind: (1) the research on interactivity conflict, and (2) research on recreation impacts on biophysical systems. Research on these two topics has been ongoing for decades, but it is only when managers begin to frame their problem as "unmanaged recreation" that a specific need arises to sort through the existing literature and figure out what lessons might be gleaned from it. Still, given basic theory and a very general knowledge of the research in this field, a researcher might suspect two basic principles that might be relevant to the problem. One very general principle is that most of the impacts to biophysical systems are generated at relatively light levels of use and then level off at higher levels of use. A second very general principle is that no amount of

education, persuasion, or other light-handed intervention will generate more than about 95% compliance (a statistic I made up on the spot!). What this suggests about unmanaged recreation is that, short of near total surveillance or closing an area, there is little one can do to reduce most of the damage because most of the damage will be caused by the 5% who are immune to almost all forms of persuasion. Anything more insightful regarding this general problem would require the time and effort to sift through and synthesize the research. And to develop anything approaching a site-specific set of recommendations (i.e., to test whether these basic principles hold in a given situation) would require a site-specific study in itself.

Managers are often looking for decision-specific and geographically-relevant information. As noted above, some of this is local knowledge that only managers would be able to generate using their own powers of investigation. But some information relevant to the situation on the ground can be anticipated in advance. Managers often are looking for already existing information relevant to the problem at hand, not research to solve some puzzle. Research is a relatively slow process that has difficulty responding to these immediate needs. Organizations need to invest in ongoing information systems that can collect, analyze, and produce timely and reasonably specific reports for managers. The National Visitor Use Monitoring (NVUM) effort is a beginning, but it may not cover some issues with enough depth and geographic specificity to meet local managers' needs. Because the usefulness of this type of information increases when comparisons can be made across time and space, these systems need to be ongoing and provide a reasonably high degree of geographic resolution.

Conclusions

In my review and synthesis of the research on the setting-experience relationship, I focused on environmental psychology as a way to frame and organize the body of work. In so doing, I highlighted four themes and challenged some conventional assumptions in recreation resource management. One challenge was to think beyond the consumption of landscape attributes typically inventoried in recreation assessments and view recreation experience as an active, creative process. On the surface, this may not seem to fly in the face of convention. But as a community of practice, we fall prey to the consumer metaphor, which suggests that the quality of experience is almost entirely a function of the extent to which the performance of the resource exceeds visitor expectations. Instead it is important to remind ourselves that people make their own experiences, they shape and adapt the situation, and they employ skills and knowledge to create their own satisfaction.

A second and related theme is that recreationists form meaningful relationships with specific settings (places), and these relationships often become ways to express a sense of identity. People form bonds with specific places and sites. Recreationists also develop intimate knowledge of those places and deploying that knowledge during their visit represents an important feature of their experience. As a consequence, recreationists may feel a sense of ownership for favorite places and will want a say in how they are managed. Our recreation resource inventories and assessment tools do a poor job of capturing the enduring relations visitors have with special places.

That leads to a third theme. Research on visitor experience is necessary but not sufficient to solve management problems. In fact no amount of research is sufficient to solve the kinds of political (wicked) problems managers often face. Thus, a greater appreciation is needed of the limits of a research approach to solving specific management problems in specific situations. In addition, most of our assessment and decision tools for management were developed in an era when expert knowledge dominated the process. In today's managerial environment, we need to rework

these tools to make them more amenable to multi-stakeholder collaboration, and there is a role for research to play in developing and evaluating these more participatory approaches to management.

Finally, we can do little to address the problems faced in recreation management if we fail to address the overwhelming need to strengthen institutional capacity for knowledge utilization and collaboration. One aspect of this is the development of an information system that serves the need of managers. Much of what managers look for from the research community is often not research per se, but information specific to a situation that can inform management decisions. Given limited human resources, there is no practical way researchers can provide situation specific answers in anything approaching a timely manner. But fundamental to all these problems is the need to build a vibrant community of practice in which managers receive education, training, and the benefit of organizational learning through the shared practical experiences of their fellow managers. Research plays a critical role in this by developing a professional literature and a wealth of expertise that practitioners can turn to for education, training, and advice.

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