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## Foreword

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The prairies of the Midwestern US seem like an unlikely place for me to comment on the fruits of a workshop inspired by the forests of Canada's Pacific Northwest. But it is from this same vantage point, more than a half-century earlier, that Aldo Leopold outlined the elements of what has since been called an *ecological aesthetic*, a way of beholding the landscape that the contributors to this book consider as one of several means for reconciling apparent conflicts between our preferences for landscape as scenery and our desire for those landscapes to be ecologically sustainable. In examining the philosophical, scientific, and pragmatic dimensions of linking aesthetic and sustainability values, participants in the Peter Wall Exploratory Workshop have gone far to advance our understanding of Leopold's ecological aesthetic, both exciting us about its possibilities and cautioning us about its limitations. As you delve into the chapters of this book, I am sure that you will receive not only many good answers on how to deal with aesthetic and sustainability values, but will also be instilled as I was with the urge to question, test, refine, and apply the ideas and suggestions the contributors have put forth.

My task to place the context and significance of this effort is an easy one, for I believe this book proclaims no less than a second revolution in the way we as a society think about, study, and act upon the aesthetic dimensions of forest landscape management. The first revolution, driven by controversies over clearcutting in the 1960s, led to explicit recognition of aesthetic values in laws and practices governing the management of forest landscapes, notably the *National Forest Management Act* in the US and the USDA Forest Service's *Visual Management System*. The Romantic view of nature-as-scenery, with its emphasis on the dramatic, visual, and static elements of landscape, served as our first aesthetic model for landscape planning and research. Formal qualities such as unity, vividness, and variety in line, colour, form, and texture, taken from aesthetic theories in the visual arts as interpreted through the Romantic schools of landscape painting and

naturalistic landscape design, served as evaluation criteria in expert-based landscape assessments. These assessments helped to protect the most scenic areas from timber harvesting and instructed forest managers on how to mitigate visual impacts elsewhere by leaving vegetation screens along roadsides and undulating the edges of clearcuts. While studies of public preference added further depth and understanding to the expert assessments, most research was also conducted within the paradigm of the scenic model, for instance asking individuals to make rapid perceptual ratings of the scenic quality of landscapes framed and presented as photographs taken at one point in time. By eliminating the extra-visual and temporal dimensions of landscapes and by focusing on only the immediate perceptual component of people's aesthetic responses, researchers helped confirm scenic ideals of landscapes as showy and undisturbed by natural processes or human interventions.

Manifestations of a second revolution in understanding and dealing with the aesthetics of forest landscapes came in North America in the late 1980s and early 1990s with the spotted owl controversy in the Pacific Northwest, increased public recognition of biodiversity as a forest resource, and adoption of ecosystem management policies by public land management agencies. Forests would need to be managed differently to provide these sustainability values, and in many cases prescriptions to improve such things as ecosystem health and biodiversity would result in a much different look to the forest.

I first became aware of the aesthetic implications of such a shift at a regional meeting of US Forest Service landscape architects in Milwaukee, Wisconsin in the autumn of 1990. At that meeting we heard a talk by the Regional Silviculturist about New Perspectives, an ecosystem-based approach to management that had recently been adopted by the Forest Service. The silviculturist remarked that we as landscape architects would be natural leaders in implementing the programme because of our sensitivity to public "white hat" values like aesthetics and biodiversity. He then went on to describe a New Perspectives project proposed for northern Wisconsin, where they planned to create a series of 900-acre openings in the national forest to provide habitat for moose and elk reintroduction. In a region where landscape architects fought to keep clearcuts under 20 acres, this large block management was unheard of and would directly conflict with visual quality objectives specified under the Visual Management System.

In the following months I came across additional examples of *when worlds collide*, conflicts between practices developed to maintain scenic quality and those that would protect or enhance sustainability values. These clashes related not only to timber harvesting under New Perspectives, but also to ecological management in ecosystem restoration where no obvious utilitarian goods were being extracted from the forest. How could such conflicts be resolved given that both aesthetics and ecological sustainability were seen as noble, *white hat* goals? Perhaps the problem was not so much that biodiversity and ecosystem health were incompatible with aesthetics, but that aesthetics as it was being conceived, measured, and addressed in landscape planning was not given a fuller reading.

Aesthetic philosophy has in some ways been responsible for the problems inherent in the scenic model of landscape management, yet a new wave of environmentally oriented aesthetic philosophy now coming of age could provide fresh guidance in dealing with perceived conflicts between aesthetic and sustainability values. Among the earliest progenitors of this wave, Ronald Hepburn (1968) described important ways in which the aesthetics of nature and landscape differed from that of art and the built environment, and Allen Carlson (1977) argued that methods to plan for and manage natural landscapes suffered from the biases inherent in an inappropriate scenery model.

It was Baird Callicott (1983) who first began to piece together Leopold's "ecological and evolutionary land aesthetic" from essays in *A Sand County Almanac* (Leopold, 1949), and he and Susan Flader (1991) subsequently compiled Leopold's ideas on ecological aesthetics from his various writings through the years. As an alternative to the dominant scenic aesthetic, Leopold's ecological aesthetic expands our goal of identifying and protecting the *most scenic* landscapes to one aimed at discovering the beauty that lies *within each* landscape. Rejecting the Romantics' formal notions of beauty, Leopold looked to the ideas of ecological integrity and health as guides to aesthetic appreciation. Such an appreciation relies as much on our understanding about science and the workings of nature as on our visceral reaction to the sights, sounds, and smells we experience.

Philosophy related to how we think about aesthetics in the context of nature, ecosystem health, and the management of forest landscapes has burgeoned in recent years, with important writings by Carlson (*e.g.* 1993; also see Chapter 3 in this volume), Marcia Eaton (1997), Cheryl Foster (1998), Holmes Rolston III (1998), Yuriko Saito (1998), and others. Those working in ecological design, planning, and research in non-forest contexts also have much to offer, including Catherine Howett (1987), Anne Whiston Spirn (1988), Robert Thayer (1989), Joan Nassauer (1997), and others. These ideas are bringing about a second revolution in our thoughts and practices dealing with the aesthetics of landscapes, one that offers potential in resolving apparent conflicts between aesthetic and sustainability values.

In 1992 when I first wrote about applying these ideas in a forest management context (Gobster, 1996), I concluded that although I thought an ecological aesthetic was a good idea whose time had come, it would be difficult to adopt directly because the scenic aesthetic was so firmly entrenched in our cultures of research, practice, and society at large. Instead of trying to change this deeply held value, I suggested that as a short term strategy managers and researchers should take a more indirect approach, asking people whether they found particular ecosystem management goals and practices socially acceptable or appropriate when given knowledge about the context or setting in which such management would take place. In subsequent papers (Gobster, 1994; 1995; 1997; 1999) I tried to suggest how one might actually help realize an ecological aesthetic over the long term as it applies to planning and policy development, on-the-ground management, and research and theory development. Along the way, I have received both support and

criticism that have helped refine my thinking and which, in ways unknown to me, may have in part led to this book.

The editors and contributors to this volume have gone far beyond my initial attempts at synthesis and application, and their efforts are evidence that the second revolution is well on its way. If there is anything that I can add to their efforts from my own experience it is a note of cautious encouragement based on some of the areas where I myself have stumbled. To conclude, I offer the following observations on how we might better proceed in linking aesthetics and sustainability values.

### **Avoid Either/Or Constructions of the Issues**

In past papers I have highlighted some key areas where a scenic model of landscape aesthetics might conflict with sustainability values, and have then gone on to identify some ways in which an ecologically-based model might sidestep or help resolve these problems. Some people have said in doing so I have overplayed the conflict between what is scenically beautiful and what is ecologically sustainable, and have set up the scenic model as a straw man to be knocked down by a *superior* ecological one. While I continue to think that there can be real problems in taking a strict scenery approach to management, I also recognize one can go too far the other way as well. Certainly there are many cases where scenic beauty and biodiversity go hand in hand, and likewise there are many attributes of scenic landscapes (and our responses to and interactions with them) that we would be worse off without. By building upon our ideas of what is beautiful and by incorporating ideas of ecological beauty, we can expand rather than substitute the forest landscapes, conditions, and processes we love, care about, and, ultimately, are willing to protect. I think this is the middle ground that Joan Nassauer has identified in her research on *cues to care* (e.g. Nassauer, 1995), and what Stephen Sheppard (Chapter 11, this volume) arrives at in his theory of visible stewardship. More information on this middle ground is needed, not only from theorists and researchers, but from practitioners as well. As one US Forest Service landscape architect told me in an impassioned letter about how things are worked out in the field in contrast to how I had portrayed them based on planning manuals and research papers:

I have handled each of these “conflicts” in my work and have found them all to be very superficial, unnecessary and generally evaporate when LA and biologist work together to achieve a beautiful and functional desired future condition... We don’t use screens or hide ugly things anymore and we are not ashamed of some charcoal in areas that require underburning. Creation of edge is a small matter if you have already made certain to protect the greater share of interior habitat.... I feel the conflicts you mention are already outdated, old hat stuff. We look for the most biologically diverse landscape to shoot for and keep it easy on the eyes,

too (Diana Ross, personal communication, Bear Spring RD, Mt. Hood NF, Maupin, OR, December 29, 1992).

## **Think About Aesthetics and Sustainability Within a Broader, Multi-Value Framework**

The values people hold for forest landscapes are diverse, and may not always be compatible. Just as our idea of aesthetics can and should be expanded, so too should we expand our idea of sustainability as it applies to forest landscape management. In a recent controversy over ecological restoration of prairie and savanna ecosystems in the Chicago area where I live, restoration proponents argued that it was necessary to remove exotic trees and conduct periodic controlled burns to return the landscape back to its former ecological integrity and native biodiversity (Gobster, 2000). Opponents countered that they not only preferred the existing, more densely forested conditions for aesthetic, recreation, and privacy/solitude values, but argued that such conditions also maintained air quality and moderated urban heat island effects better than the more open, fire-dependent native landscape. Instead of arguing whose values are better, perhaps a more constructive way to proceed is to respect the legitimacy of these multiple values and work together to integrate them to achieve the shared goal of a sustainable future for nature and people. This is not an easy thing to accomplish, but is increasingly necessary in a multi-value, multicultural society. In this same vein, several of the authors in this book seek to expand ideas of sustainability to go beyond ecological considerations; in particular Linda Kruger's place-focused collaborative approach to identifying landscape meanings and negotiating multiple and conflicting values seems promising.

## **Move Beyond Preference Approaches to Aesthetic Assessment**

As a social science researcher, I was trained in various *preference* approaches to understanding landscape aesthetics, to conceptualize aesthetic response as an immediate perception to landscape stimuli. In contrast to this view, most contemporary philosophers of landscape aesthetics focus on the idea of *appreciation*, in which knowledge, experience, and learning play important roles. Because the cognitive dimension is such an important part of an ecological aesthetic, I think researchers and practitioners would do well to pay more attention to ideas inherent in the aesthetic appreciation of landscapes. Again, we should not aim to replace one idea with the other, but greater emphasis put on understanding, measuring, and providing opportunities for people to learn about and appreciate sustainable ecosystems could lead to expanded ideas of landscape beauty. In this respect, some of the *visualization* techniques described in this volume show promise for adapting to questions about appreciation. In other cases, we will

need to expand our repertoire of approaches to better capture the multi-sensory, cognitive, and experiential qualities of landscape.

## **Is There a Place for Normative Theory in Landscape Research and Practice?**

A final question I would like to raise to this book's readers and contributors concerns the role of researchers and practitioners in establishing a normative or prescriptive content in landscape aesthetic assessment. An ecological aesthetic clearly incorporates an ethical dimension; it implies that landscapes that are managed to increase health and diversity should be appreciated over those that compromise these sustainability values. This is different from a typical preference approach that attempts only to describe what people like, ostensibly making no judgment whether these preferences have any impact good or bad on the landscape. Should we, as social scientists and practitioners, do all we can to maintain our neutrality and just stick to the facts, or should we join our colleagues in the arts and humanities and advocate movement toward a more ethically based foundation for our work?

I see no reason why we cannot make such a move and maintain integrity in our science and practice. As any postmodern observer would instantly recognize, we impose our value structure on a problem the minute we begin to address it: for example, whether we choose to study preferences or appreciation, how we define and measure ambiguous concepts such as beauty, and how we "scientize" value-laden concepts like sustainability, ecosystem health, and biodiversity (Hull and Robertson, 2000). In fact, the more we make clear our values and biases, the better position we are in providing answers to questions that withstand the rigours of public and professional critique. We have much to learn from those aesthetic philosophers and ecological designers who are working on related problems and issues, and it would behoove us to develop closer collaborations with them to infuse our research and practice.

These, then, are some of the opportunities and challenges that lie ahead as we pursue answers to vexing questions about aligning aesthetic and sustainability values. It is with their improvisations upon Aldo Leopold's normative ethic of landscape appreciation, and their explorations beyond it, that the contributors to this volume are leading us toward the next revolution in building landscape aesthetics into sustainable forest management.

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# **Forests and Landscapes Linking Ecology, Sustainability and Aesthetics**

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