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FRONT COVER image of the Iguaçu River as it pours through a subtropical rainforest at Iguaçu Falls, Iguaçu National Park, Brazil World Heritage Site. INSET PHOTO, a male cock of the rock *(Rupicola peruviana)*, in a 1,600 meter-high cloud forest, Kosnipata Valley, near Manu NP, Peru. Both photos courtesy of Alan Watson/Forest Light, Caledonia, Findhorn, Forres IV360YY, Scotland. Tel: 0139-690934/691292.

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EDITORIAL PERSPECTIVES

Wilderness Leaders

BY CHAD P. DAWSON

There is just one hope of repulsing the tyrannical ambition of civilization to conquer every niche on the whole earth. That hope is the organization of spirited people who will fight for the freedom of the wilderness.

—Robert Marshall, cofounder, The Wilderness Society

We are blessed with a rich history of wilderness advocacy within the United States and around the world. Some research reports in the United States indicate that a sizable portion of the population knows about wilderness and values it (see Cordell et al. in the April 2003 issue of the *IJW*). However, that same public is unaware of or does not understand some of the ecologic, economic, and social benefits of our wilderness resource and legacy. As Marshall points out, we need organizations and leaders to keep the spirit of wilderness alive.

Some of the "spirited people" who are the driving force behind development and production of the *IJW* are changing with this issue. Dr. Alan Ewert, one of the founding executive editors of the *IJW,* has resigned in order to devote more time to his new duties at Indiana University as associate dean in the School of Health, Physical Education and Recreation (see page 46). Dr. Perry Brown, dean of the College of Forestry and Conservation at the University of Montana in Missoula, has accepted an appointment to the *IJW* editorial board (see page 47).

The Soul of the Wilderness article in this issue is an edited transcript of a speech in Munich on June 25, 2003, by Hubert Weinzierl, President of Deutscher Naturschutzring. He calls for us individually to have the courage to speak out for wilderness and ensure its creation and protection, and to have the courage as a society to restrain ourselves from creating cultured landscapes everywhere and losing the natural.

Four articles in this issue speak to the changes within the international landscape toward more attention to wildlands and wilderness. Diemer, Held, and Hofmeister relate attempts at the and need for rewilding the fringe around urban areas in central Europe. Marafa identifies wild components in the historic landscapes around Hong Kong. Slater-Jones investigates the relationships between transfrontier park managers, policy makers, and indigenous populations around some North American and southern African parks. Shultis and Rutledge review a management model that may help provide sustainable development around some wilderness areas of Canada.

Article author Chad Dawson.

Kluwe and Krumpe explore the social aspects of visitor use conflicts in wilderness areas of Alaska and Finland; in particular, they are concerned about recreation uses and users increasingly conflicting with subsistence activities. Flood reports on studies of recreational users and managers in the Mission Mountains Wilderness of Montana to address the concern that wilderness users may "benchmark," or fix a reference point on the conditions they observe in wilderness, and use that as a reference point in future visits to that or other wilderness areas.

The two book reviews in this issue focus on the "tyrannical ambition of civilization to conquer every niche." The first book, *Confronting Consumption,* tells the story of the obsession with consumption in Western cultures, while the second book, *Driven Wild,* tells about the impact of automobile-based tourism on early wilderness advocates and their interest in preserving some natural landscapes. What will generations in the future say about the wilderness leaders of today and the wilderness legacy we leave to them?

Courage for Wilderness

BY HUBERT WEINZIERL

Wilderness seems to be booming. There is no academy that doesn't offer symposia on wilderness; no magazine that doesn't have a topic on the so called "wild"; and even the German state TV channel (ARD) alone ran over a 100 programs on themes like *"adventure wilderness*," *"longing for wilderness*," "*refuge wilderness,"* and so forth.

Nature romance, outdoor drive, and the *Waldwesen* have returned to our modern vocabulary. The forest as a mystical place and Green Man or Merlin myths are under discussion again, and it appears that many an Internet surfer longs for the green labyrinths and the "downs" of the soul.

Author Hubert Weinzierl by Ulf Doerner.

It took quite a while for the wilderness discussion to cross the trans-Atlantic gap, where the discussion had already started half a century ago. But wilderness thinking is now here. Aldo Leopold (1887–1948) defined this philosophy with the still-valid words, "Wilderness is a rejection of the arrogance of humans."

Wild Nature Under Attack in Germany

If I were to be led blindfolded through different countries and had my sight returned in this country, I would immediately know that I was in Germany: Because nowhere else are the forests and rivers governed by a more obtrusive form of orderliness, and nowhere else are the degrees of cleanliness celebrated with such a perversity as here. Streets, farm tracks, forest borders, villages, towns, and industrial areas—all reflect a cultivated land, born of offices and drawing-table brains that have nothing in common with civilization, and nothing in common with free nature. And if one dares to ask about the remaining wilderness, he or she would only raise an uncomprehending stare.

To the contrary, the question of whether nature is replaceable is keeping the landscape planners, government administrators, and legislators busy, but also some investment speculators who try to distract us from their destruction of nature with compensation deals to try to offset or minimize the damage. For example, amphibian pools in highway loops, restoration after mining, compensation for nature conservancy when building power lines, purchase of acreage, and "optimization" in new road construction or at the edge of industrial areas—these are offered to the public as ecological bait. Elaborate and often perverse calculation methods and so-called ecological performance evaluations are used as proof that nature and species protection are best served with intrusions into the ecosystem.

It is exactly here that I stake my most urgent protest. Grown landscapes and their species and creatures cannot be compensated for by manipulation or with money—any more than can the place that we call home. Those who sell habitats and think to buy a piece of nature in exchange elsewhere must know that they destroyed nature all the same.

Our Grandchildren Will Judge Us by the Nature We Leave for Them

Much more honest than an ecological performance evaluation would be to introduce a grandchild compatibility check in order to disclose what we force on our posterity. The ensuing ages will not judge us on how many roads or factories we built, but on how much habitat, how many animal and plant species, and how much wilderness we left behind. *Therefore, I plead for more courage for wilderness. Leave hands off of some forests and meadows. Let's have the courage to do nothing, and, as foresters or landscape planners, let's find virtue in the insight that nature doesn't need us at all.*

What kind of culture is this that wrecks its basis, the landscapes and river valleys, leaves its forests to waste away,

and quarrels in its greed about whether the richest society ever can afford a few animals and plants, which survived the famines of harder days. Isn't it an indicator for the loss of sense of proportion, when in Germany there is currently a heated debate about whether 50 lynx are allowed to keep their ancestral right to live just because they feed on a few deer? Where is the prey envy directed at 50 million cars to which we make hundreds of thousands of game sacrifices and against which we even lovingly insure them?

To Live and Let Live

For 20 years we left the park behind the Wiesenfelden castle to run to seed. Since then, the biologists have registered peaks of diversity. The golden oriole has returned, the hobbyist searches for dragonflies and the bog calla flowers, and the newts and toads attract gray herons. But the tourist board inveighs against the unbearable mess that should be cleaned up and converted into human playgrounds.

The repertoire of every populist politician still has it that our homeland would convert into a miserable "misnature" without the nursing hands and the machines of industrious farmers—that left alone it would convert to dark and wild steppe. Foresters, hunters, anglers, water managers, and road builders all assume that the good Lord is incapable of keeping his creation in order without their help.

Recently, a host of landscape planners and landscape curators reinforced their battle for the perpetuation of our artificial or so-called "cultured land." Must not we, the conservationists, in the face of such ideas think about which nature we want to protect? Do we want to conserve a snapshot of the human-made landscape forever, or do we want to protect nature itself?

"Keeping it Wild" is on the European agenda. Photo by Vance Martin.

We should show more courage for wilderness, and not be fobbed off by the idea that certain habitats are upholders of landscape moral standards. On the contrary, we should see nature reserves as pearls embedded into a landscape, and which we carefully protect. Thus, we need nature conservancy over all areas. And we need some wilderness in our country in order to not disconnect totally from nature.

This shift signifies a few corrections needed in our thinking; for example, changing the farming policy fairy tale of the farmer as landscape curator. And a confession by us conservationists that quite a bit of our obsession with nature originates from the anthropocentric wishful thinking to conserve nature as we would like it to be. Nature conservation understood this way is ultimately just a form of the desire to dominate.

Isn't it horrible to live in a country in which every square meter of living space is technocratically planned as an economic area or development axis, or as usable agricultural area, construction area, or, recently, as a concession to ecology as a "maintenance area" or "habitat" conserved just to make intensive use possible? In this way, nature is all but sent to the asylum or transferred to the welfare office of creation.

To counter this mind-set, I want to voice the consideration that ecological succession in its own right is worth protection, and that we need to assure enough space for evolution to occur. Why don't we seize the historic opportunity in light of the current farming situation in central Europe and leave some fallow land to develop for itself, to be reforested, or to just be? Or develop some hundred thousand hectares of river scapes into floodplains as a protection against floods?

Now, due to economic reasons, we have the once-in-a-lifetime chance to declare the areas from which farming will retreat as succession areas (about 10%) and to reward the farmers for it instead of subsidizing overproduction of agricultural products.

Is the development of hazelnut hedges, birch clusters, juniper slopes, or alder thickets a disaster, even when it leads to a species change? Isn't there a wonderful new forest after the bark beetle collapse in the low mountain ranges, or fields of reed where a pond starts to dry up? Or gorgeous wetlands were we don't keep the drainage trenches

open anymore, and forest fringes where we used to cut away to the bark?

We need to think about these cheaper alternatives to cultivation of the landscape. Are we aware that only a rich society can afford state-financed programs to cultivate the landscape in the long run, and that the so-called contractual nature conservation will run out eventually? If we respect the right of the wilderness again, we will have to abandon quite a bit of static nature conservation management for the benefit of a perpetual flow of natural conditions, while also creating recreation opportunities.

Maybe we should become more sensitive to life processes and rethink our conservation relationship to nature with a shift toward a future ethic, that abjures the landscape geometry and turns toward being and letting be. This idea is not to play anthropocentric against biocentric thinking, but rather to engage more in a spiritual intuitiveness that we are on a common earth and a common creature.

Courage for wilderness is also the courage for self-control, for observing instead of acting, for noninterference. It is doing nothing as nature conservation. It embodies respect for sanctuaries and the reduction of our own characteristic arrogance in favor of respect for the rest of creation. Then it will suddenly become apparent why the wildcat is part of the nature of the forest, even if we never get to see one, that beaver shavings on the riverbanks reveal a secret presence, and that the flap of an Apollo butterfly sanctifies the heath slope.

Photo by Ulf Doerner.

Longing for Wilderness

Recently I was asked to deliver a definition of the topic of wilderness. While thinking through my own wilderness philosophy of "doing nothing as nature conservation" and "let nature be nature," I suddenly realized the error: Wilderness is not thinkable, wilderness can only be, wilderness is not describable, let alone able to be planned. It cannot even be experienced, it is only *livable*.

Wilderness is a rejection of order, the typical German approach, the appalling planning of every square meter, and the banishment of the last secrets and myths from our surrounding world. Wilderness is a culture against the streamlined thinking, against all the "you may, you shall, you must" constraints by which State and religion have cleared our "soul wilderness" and consolidated our natural creative sensitivity. Out of the wilderness of living hearts they formed disciplined, civilized humans, whose ties to the living threaten to snap.

Wilderness nature trails that are currently in vogue are as absurd as liveries fairs or fitness trails; that are not needed if I am living a real life, and the clichés of the good old times are as bogus as those of the wilderness.

The wilderness in our hearts is a yearning. It is a yearning for all the notions that don't cost anything, a yearning for the simple, the manageable, and the things human. It is a yearning for enchantment and for mysteries, for intuitiveness instead of knowledge, for hope instead of promises.

Wilderness does not have to be jungle, a wild river, or the howling of a wolf. Wilderness is everywhere where we tolerate it: in a chemical-free garden, in forests where the lynx is tolerated, or in a society that permits its citizens to think.

This society that we live in has been chasing the misapprehension of separating intellect from mind since the age of enlightenment, which is after all a dozen human generations ago, and, therefore, our right brain is hopelessly atrophied. Thus, we have our difficulties in talking to trees or loving butterflies. And it will take time in evolutionary terms to overcome this generations-long error.

Maybe it can happen much faster, given the growing global pressure to conserve wilderness. Then we can go home to wilderness, not back to nature. Home, where we can be how we are, to exist, love, eat, drink, sleep, be lazy and weak, pray, laugh, and dance—being wild and simply alive. Therefore, wilderness is the dream of being allowed to be oneself, instead of a state of heteronomy.

Wilderness is a mind-set. Wilderness is the delight of not mowing the Garden of Eden, but waiting serenely for paradise. Wilderness is dreaming instead of cleaning up. Wilderness is a dialogue with nature instead of talking about nature.

HUBERT WEINZIERL is the president of Deutscher Naturschutzring (German League of Nature, Conservation, and Environment [and an umbrella organization of 105 NGOs, 5.5 million members]). This article is based on a translation of a June 25, 2003, presentation in Munich at the launch of the International Wilderness Foundation (Germany). He can be reached at: Post Fach 40, 94343 Wiesenfelden, Germany.

Urban Wilderness in Central Europe

Rewilding at the Urban Fringe

BY MATTHIAS DIEMER, MARTIN HELD, and SABINE HOFMEISTER



Article coauthors (l to r) Matthias Diemer, Martin Held, and Sabine Hofmeister.

Wilderness is a popular concept in central Europe, although extensive natural areas where human management has either never occurred or ceased centuries ago are lacking. Wilderness areas tend to be small and isolated, and often currently in the process of rewilding; therefore, wilderness and rewilding must be viewed in a specific central European context. As Leopold (1942) notes about the value of small wilderness: "One of the symptoms of immaturity in our concept of recreational values is the assumption, frequent among administrators, that a small park or forest has no place for wilderness. No tract of land is too small for the wilderness idea. It can, and perhaps should, flavor the recreational scheme for any woodlot or backyard" (pp. 24–25).

Introduction

In most regions of Europe, including the British Isles, extensive pristine wilderness areas are lacking, if judged by the criteria contained in the U.S. Wilderness Act or by the International Union for Conservation of Nature and Natural Resources (IUCN) wilderness classification (EUROPARC and IUCN 2000; Carver et al. 2002). Nevertheless, a number of isolated wilderness areas exist in relatively remote locations throughout central Europe (Germany, Austria, and Switzerland). They are often synonymous with national parks of which they comprise core zones, where human impacts were historically minimal or, where management activities have been halted. Although a number of these national parks were established in the 1990s, it is unlikely that a substantial number of new reserves will be established in the near future due to the large land areas required and associated management constraints.

Concurrently, a number of local initiatives were started by conservationists, foresters, NGOs, and local public agencies, which have led to the independent establishment of urban wilderness areas in central Europe to complement the more remote national parks (Held and Sinner 2002). There are analogous efforts within the IUCN to address the issue of urban parks (McNeely 2001). In the following sections we introduce the underlying ideas, concepts, and potential functions of established and proposed urban wilderness areas in central Europe.

Wilderness, Rewilding, and Scale

As mentioned previously, extensive pristine wilderness areas are lacking in Europe. Although there is ample evidence of extensive human influence in the shaping of so-called

Figure 1—Abandoned railroad yard in the rewilding area Schöneberger Südgelände in Berlin, Germany. Photo by S. Hofmeister.

pristine North American wilderness (Olwig 1995; Schama 1995), the ideal of pristine and untrammeled wilderness formulated in the U.S. Wilderness Act (1964) still prevails (Cole and Landres 1996). In practice, however, the wilderness criteria associated with IUCN classifications are applied pragmatically, and difficulties in defining natural states of ecosystems prior to human settlement are acknowledged (EUROPARC and IUCN 2000). Briefly, wilderness is viewed as an area, where natural processes are permitted to operate without human interference.

Throughout Europe, the establishment of wilderness inevitably involves the process of rewilding. Yet rewilding is perceived differently in Europe than in North America. Although the reintroduction and immigration of large carnivores commands great interest and controversy throughout Europe, the rewilding issue goes far beyond wildlife habitat. Big wilderness (Soulé and Noss 1998), rewilded or not, is unfeasible in central Europe.

From Species to Processes: Conservation in Central Europe

In central Europe, virtually all seminatural landscapes are the products of centuries-old, traditional agricultural, hydrological, and silvicultural management regimes. These human efforts have resulted in habitats with high biodiversity and many rare or endangered species (e.g., fens, calcareous grasslands). Many of these unique and species-rich habitats are threatened as a result of land-use changes associated with the intensification of agriculture, urban development, and anthropogenic impacts. For example, more than 90% of Swiss wetlands have been destroyed since 1850. Consequently, nature conservation during the past decades has focused primarily either on the preservation of rare or endangered species, or, more recently, on the maintenance of threatened seminatural habitats, characterized by high biodiversity and/or presence of endangered species. These two approaches are termed static, since the preservation of a status quo or an ideal are the primary management objectives. Despite their virtues and successes, these approaches are highly dependent upon subsidies to landholders and managers, which may not be available in the future (Eissing 2002).

More recently, a third, dynamic approach has gained momentum, which emphasizes processes rather than static preservation (Scherzinger 1997; Jedicke 1998). Here, the maintenance or reestablishment of natural processes, including vegetation succession, floods, wind throws, and insect calamities, are explicitly tolerated. Reestablishment of natural processes also implies rewilding, since management is effectively terminated. In most habitats this process will result in secondary succession toward wilderness. In some instances, the consequences of rewilding may include the disappearance of certain habitat types and even reductions of overall biodiversity. Furthermore, for some ecosystems there are no clear conceptions of the composition or appearance of the future wilderness state. Consequently, rewilding (*Verwilderung*) is a controversial issue, not only among natural resource professionals and conservationists, but also among the general public.

A case in point is the national park Bayerischer Wald in Germany where widespread diebacks of spruce forests occurred due to drought and beetle infestations during the 1990s. These diebacks led to public protests reminiscent of reactions to the wildfires and the "let burn" policy in Yellowstone National Park during 1988. Yet, in time, attitudes of both the public and some critical foresters changed as the restorative powers of ecosystems became evident through widespread forest regeneration, as predicted by conservation professionals. Hence, public acceptance of rewilding rises once the dynamic properties of ecosystems are understood and appreciated.

Rewilding is also relevant outside of national parks or reserves. Outside parks, rewilding is bound to increase significantly in marginal forest and

The creation of wilderness or rewilding areas proximate to urban centers will contribute to conservation, nature appreciation, and the overall quality of life.

agricultural lands. Present efforts by federal agencies and the European Union to take cropland out of agricultural production and future projections of these agricultural policies indicate that abandonment and hence rewilding of agricultural lands will increase dramatically in the near future, particularly in regions where soils are marginally productive (Eissing 2002). It is presently unclear if and how these extensive agricultural rewilding areas will be administered. Similar trends, albeit driven by different constraints, can be projected for the field of forestry.

Urban Wilderness in Central Europe

Aside from established national parks and abandoned agricultural and forestlands, where ecosystems are developing into wilderness, other types of wilderness are present in central Europe—albeit at appreciably smaller spatial scales than recognized by current IUCN criteria (i.e., less than 1,000 hectares [2,470 acres]). These wildernesses include steep canyons or ravines, remote wetlands, inaccessible as well as abandoned orchards, or vineyards in suburban and rural areas. In addition, abandoned industrial areas, rail yards, former borderlines (such as sections of the former Berlin Wall), unused lots, and recreational parks are rapidly developing into urban wilderness. These urban wilderness areas are highly diverse, not only biologically, but also in spatial extent. Only few have a legal status guaranteeing permanence. Consequently, a multitude of uses exists, spanning the extremes of recreational playgrounds or picnic areas to impervious and thus solitary thickets. Yet, in all examples, parts of the area are rewilding. We propose the following classification to characterize various wilderness areas (see Table 1).

Table 1—Proposed Classification of Wilderness in Central Europe.

Designation	Description	IUCN Status	Purpose
National Parks	Reserves distant from human habitation, large areas (> 1000 ha).	II, Ib	Biodiversity, ecological services, large carnivores, recreation, research
Urban wilderness	Reserves close to urban centers and/or urban areas (≤ 10 km distance), smaller areas (< 1000 ha). Remnants of wilderness or areas with low human impact.	None, but desirable by both IUCN and national agencies.	Biodiversity, recreation, ecological services, research
Urban and rural rewilding areas	Abandoned urban, industrial or agricultural sites (< 500 ha), including rail yards, former coal mining areas, former agricultural fields.	Not needed. Regional or national legal status desirable.	Biodiversity, education, ecological processes (e.g., plant succession, invasions), recreation, research
Rewilding microcosms (urban and rural)	Small areas (≤ several ha), such as private and public gardens, canyons, edges of parks, streams or ponds.	Not needed. Local legal status desirable.	Biodiversity, recreation, ecological processes

Adapted from Meyer et al. 2002.

Table 2—Examples of Urban Wilderness Areas in Central Europe.

Name	Location/Country	Age	Area (ha)	Habitat	Former Use
Faberwald	Nürnberg, D	1981	20	Mixed deciduous forest	Recreation
Sihlwald	Zürich, CH	1993	820	Mixed deciduous forest	Silviculture, recreation
Stadtwald	Lübeck, D	1994	479 in four sites	Mixed deciduous forest	Silviculture, recreation
St. Arnualer Wiesen	Saarbrücken, D	1995	45	Grassland, open forest	Meadows, landfill
National Park Donau-Auen	Wien, A	1996	8,800	Floodplain, deciduous forest	Recreation, silviculture
Wilder Industriewald/ Brachewald	Ruhrgebiet, D	1995–1999	100	Mixed birch and willow stands	Coal mines, spoils
Schöneberger Südgelände	Berlin, D	2000	18	Various stages of succession	Railroad yard
Steinbachtal-Netzbachtal	Saarbrücken, D	2002	1,000	Mixed deciduous forest	Silviculture, recreation
Goldachtobel	St. Gallen, CH	proposed	430	Stream, ravine, mixed deciduous forest	Silviculture, hydroelectricity, hunting, recreation

Of primary interest here is urban wilderness. During the last decade a number of urban wilderness areas, predominantly forests, have become established in Switzerland, Germany, and Austria (see Table 2). The most prominent example is Sihlwald, located in the vicinity of metropolitan Zürich (Christen 2002), a mixed deciduous forest formerly managed for timber and wood production that is reverting to wilderness. As for most other urban wilderness areas, no definitive legal status exists for Sihlwald. Currently, the Swiss legislature is preparing amendments that would provide recognition as well as

Figure 2—Goldachtobel—a proposed urban wilderness area near St. Gallen, Switzerland. Photo by M. Diemer.

protection for existing (e.g., Sihlwald) and proposed urban wilderness areas, such as the watershed Goldach-Tobel close to St. Gallen (see Table 2).

Independent of these Swiss federal activities, a growing interest prevails throughout central Europe for establishing further urban wildernesses, evidenced by activities of local initiatives, conferences, and workshops (Held and Sinner 2002). Campaigns by Swiss and German NGOs have resulted in broad, nationwide coverage and hence greater public and political awareness of urban wilderness. Presumably several new urban wilderness areas will be established or officially recognized throughout Germany and Switzerland as a result of this publicity.

Another wilderness category unique to central Europe, often located in metropolitan areas, should also be mentioned here (see Table 1). Several former industrial areas in Germany have recently gained protective status, such as in the Ruhrgebiet (Emscher Landschaftspark), Berlin (Schöneberger Südgelände), and Dessau (Ferropolis). The areas usually comprise extensive industrial complexes, including vast areas used for the storage of materials, such as open pits or quarries, and mounds of spoils that were abandoned for economic reasons. These sites are unique in that they attempt to coalesce a number of potentially conflicting uses, such as demonstrations of historical industrial architecture, ecological succession on spoils, various recreational activities, and cultural events. They all include zones set aside for rewilding (i.e., secondary succession). As a result of these multiple uses, we classify these sites as urban rewilding areas rather than urban wilderness (see Table 1). The distinction between wilderness and rewilding area seems contradictory, that the process of rewilding occurs in both categories. Yet, the long-term objectives are different. Wilderness areas are tracts of land specifically set aside to evolve without human interference, whereas rewilding areas, or fractions thereof, may never attain this state, due to the multiple management objectives.

Public Acceptance of Urban Wilderness—Successes, Functions, and Potentials

The concept of wilderness is highly popular throughout central Europe and publicized through tourism, the media, and NGO campaigns. Nevertheless, many people still associate it with vast national parks located in Scandinavia, North America, or elsewhere. Only several of the national parks in Germany, such as Bayerischer Wald, actively promote the term *wilderness.* Furthermore, due to restrictions on use, many of the wilderness areas within national parks are not freely accessible to the European public.

Hence, urban wilderness areas can serve to promote the wilderness concept in situ in the proximity of urban centers, as well as to foster nature appreciation, recreation, and experiences of solitude (Zucchi 2002). Additional uses include educational, pedagogic, or therapeutic programs.

In fact, the success of two integrated educational and therapy programs in Switzerland appears to be closely linked with recurrent nature experiences in urban wilderness areas.

However, these human demands must be weighed against ecological objectives (biodiversity, maintenance of natural processes) as well as legal constraints (maintenance of roads, public safety issues, hunting, access). Irrespective of these limitations, urban wilderness areas have a great potential for education, recreation, and the experience of nature (Meyer et al. 2002). In addition, their establishment addresses the criticisms of Cronon (1995) and others, who have argued that the preoccupation with remote and presumably pristine wilderness has been counterproductive with respect to environmental awareness and appreciation of nature (but see above quote from Leopold). In this context, urban wilderness should and can contribute significantly to environmental awareness in urban areas, where the majority of people reside and where environmental problems are most severe. In addition, urban wilderness areas serve as vital resource for future generations. For children and adolescents, these areas provide a suite of functions, including playgrounds, refuges, and testing grounds for personal challenges under natural conditions.

The creation of wilderness or rewilding areas proximate to urban centers will contribute to conservation, nature appreciation, and the overall quality of life. In doing so, they complement the more remote wilderness areas, such as national parks and reserves throughout central Europe and elsewhere. Urban wilderness can be viewed as a unique European approach to reinstate wilderness via rewilding in a landscape extensively shaped by humans and as a model for other metropolitan areas worldwide.

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Figure 3—View from Sihlwald towards Zürich, Switzerland. Photo by A. König, Grünstadt Zürich.

The Muskwa-Kechika Management Area

A Model for the Sustainable Development of Wilderness?

BY JOHN SHULTIS and RON RUTLEDGE

Introduction

The economy of the province of British Columbia (BC) remains heavily dependent on resource extraction—the forestry sector is still its primary economic generator—but it is also known for its level of environmental concern. Indeed, since the birth of the modern environmental movement in the late 1960s, there has been an increasing number and intensity of political battles between resource extraction industries and residents calling for the preservation of wilderness and parklands in BC. This so-called "war-in-the-woods" reached a crescendo in the late 1980s, when valley by valley battles became commonplace (Wilson 1998).

A change of government in 1990 stimulated the development of a new model of decision making for natural resource management in BC. In 1992, the Commission on Resources and Environment (CORE) was legislated to "develop for public and government consideration a British Columbia-wide strategy for land use and related resource and environmental management" (CORE 1992, p. 39). This legislation specifically requested that a regional planning process founded on a community-based participatory approach be created. In 1994, the Land and Resource Management Planning (LRMP) process was adopted by the BC government in concert with the Protected Areas Strategy, which called for a doubling of BC parkland from 6% to 12% of the province (Province of British Columbia 1993).

The deep antipathy between the ideologies of stakeholders representing industry and conservation interests was often difficult to address, and the first two regional LRMP meetings were unable to reach consensus regarding which areas within their regions would be protected from normal extraction activities. After the government demonstrated it was willing to create protected areas despite the lack of consensus, the LRMP process began to move forward, though often at an excruciatingly slow pace.

In northeastern BC, two regionally based groups of stakeholders from government, industry, conservation, recreation, First Nations, and other interested parties began LRMP deliberations in 1992. The purpose of this article is to describe the innovative outcomes created by these two groups over more than five years of discussions. After briefly noting the ecological significance of the Muskwa-Kechika Management Area (MKMA), the vision and objectives of the MKMA are outlined, and the means of achieving these objectives through distinct legislation and policy are reviewed. The article specifically highlights the central role that the concept of wilderness plays in the management of the MKMA. Finally, the MKMA's successes and future challenges are identified.

The Muskwa-Kechika Management Area

When the MKMA Act was passed by the government of BC in 1998, it formalized the creation of the largest conservation system in North America. When a third LRMP region joined the system in 2001, the MKMA grew to 6.3 million hectares, or over 24,000 square miles, an area the size of West Virginia or Ireland (see Figure 1). It is one of the few remaining large, ecologically intact, almost completely unroaded wilderness south of the 60th parallel, and as such, contains wildlife populations of truly global significance (British Columbia 1997b).

In addition to its globally significant wilderness, biodiversity, and ecological values, the MKMA also contains

numerous resource development values. Most significant are well-defined oil and gas fields, a variety of metallic and nonmetallic resources, forests, and various wilderness recreation and tourism resources. As the MKMA has been used by First Nations for thousands of years, many cultural and heritage values are also present, including archaeological sites, historical sites, and traditional use sites, each of which retains high cultural significance to living communities.

According to the preamble of the enabling legislation:

> The management intent for the Muskwa-Kechika Management Area is to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area designated for those purposes [recognizing the] long-term maintenance of wilderness characteristics, wildlife and habitat is critical to the social and cultural well-being of [F]irst [N]ations and other people in the area. (British Columbia 1998a, p. 1)

The Muskwa-Kechika Advisory Board is an appointed body responsible for advising the premier of BC on natural resource management in the MKMA. The Board: (1) monitors development to ensure activities within the region are consistent with the intent of the three LRMPs, the MKMA Act, and the MKMA Plan; (2) makes recommendations to the trustee on the Muskwa-Kechika Trust Fund; and (3) provides an annual report on these matters to the premier and public (e.g., Muskwa-Kechika Advisory Board 2001).

While the maintenance of the wilderness quality of the MKMA is formally entrenched in legislation, the concept of wilderness has yet to be adequately defined by the MKMA. A draft definition states:

> Wilderness is evident over large areas where human activities and constraints are at levels that allow for the perpetuation of characteristic natural processes, and the presence of the full complement of plant and animal communities characteristic of the region. While non-permanent, site specific disturbances and activities will be evident, the overall naturalness, biological diversity and ecological integrity of the MKMA will be maintained. (MKMA, unpublished photocopy, undated)

Many difficult questions are raised, but not yet answered by this definition, perhaps reflecting future issues to be addressed by the MKMA in balancing wilderness and resource development. For example, the issue of how naturalness might be conceptualized and operationalized has yet to be adequately addressed in the literature; similarly, the question of how the concepts of biodiversity and ecological integrity might be measured and monitored in the field remains unclear.

A New Model for Wilderness Management?

The MKMA basically seeks to create a sustainable development model for what is now a de facto wilderness area, and in this sense is not particularly unique. Resource development is permitted in most areas of the MKMA (outside of designated protected areas), and operational plans must consider and address all other significant values present on the land base, such as fish and wildlife habitat, wilderness recreation and tourism, visual quality, cultural/heritage, and major river corridors (British Columbia 1998b). This

Figure 1—Map of the MKMA.

approach equates to an integrated resource management and ecosystem management approach used in numerous places around the globe.

However, in our view, the MKMA is unique in the way in which it combines several strands of current, state-of-knowledge thinking. It must be noted that the baseline ecological health and integrity of the MKMA is unusual: Predator-prey relationships are intact and preserved at the ecosystem scale, primarily because of low human populations levels and the absence of an established road system with its associated habitat fragmentation. However, the model is unique in its landscape level use of the wilderness concept to frame the maintenance and management of the sizable region, not just designated protected areas within the MKMA.

The structural components of management are also innovative, in large part because of the grassroots level development of the MKMA ideal; as the agreement was created by local residents, they demanded that local residents (via the Advisory

Figure 2—Trail riding is a popular recreation activity in the MKMA. Photo courtesy of John Shultis.

Board) manage the region rather than the traditional bureaucratic agencies. They also convinced a reluctant government to provide a trust fund for the region. Originally, $2 million annually were added to the trust fund from general revenue funds, although a change to a more fiscally conservative government has seen this figure reduced to $1 million per year. Using interest income from this fund, the Advisory Board is able to conduct significant amounts of research each year. This commitment to research is also reflected in the partnership created with the University of Northern BC, which has created a Muskwa-Kechika professorship, graduate student scholarship, and annual research funding (British Columbia 1999). The vision statement of the Advisory Board clearly reflects this interest in research as they "will promote and encourage effective and innovative resource management methods, based on the highest quality research. Through research and funding activities, [they] seek world class management, monitoring, and mitigation to minimize the human footprint" (Muskwa-Kechika Advisory Board 2001, p. 4).

Most research follows the tenets of conservation biology, which has become an influential lens through which to view ecosystems at the landscape level (e.g., Soulé and Terborgh 1999). As a result, concerns with future development focus on connectivity between landscapes, maintaining core (i.e., protected) and buffer areas, managing at the landscape scale, habitat fragmentation, and the maintenance of predator-prey relationships. A Conservation Areas Design plan is currently being generated to direct the management of the MKMA in relation to the location, level, and type of development activities allowed and their potential impact on ecological processes in the area. In addition, five smaller-scale legislated planning processes—recreation management plans, wildlife management plans, landscape unit objectives (forest planning), parks plans, and oil and gas pretenure plans—have been completed or are in progress by either the MKMA and/or the relevant government ministry.

Zoning is consistent with previous systems, and yet somewhat unique. The three main zones are Special Management Zones and Enhanced Resource Management Zones (covering 57% of the MKMA), and Protection Management Zones (27% of the MKMA). Each zone and its accompanying objectives were given legal status through the MKMA Act. The 2001 MacKenzie addition to the MKMA included a separate wildland zone, incorporating almost 50% of the addition (or 16% of the MKMA), which allows mineral extraction but not timber harvesting; only temporary roads are permitted in this zone (Craighead Environmental Research Institute 2002).

The Special Management Zones are perhaps the key to creating a balance between resource use and wilderness preservation. These zones, which allow resource development, attempt to ensure that such development has minimal effects on the ecological integrity of the MKMA. In essence, they are large buffer zones, which have often been requested by conservationists but have rarely been established around protected areas due to the commercial concerns of private landowners or public land management agencies. According to the MKMA Act, "The long-term objective is to return lands to their natural state as development activities are completed" (British Columbia 1998a, p. 1). Thus, ecological restoration, which has often proven to be controversial in other locations (Gobster and Hull 2000), is

Encourage others to create similar unique, grassroots approaches to wilderness management at the landscape level.

central to the concept of Special Management Zones.

Several changes to local strategic planning processes have also occurred. Perhaps most importantly, joint plan approval is required. In the past, planning approvals for resource developments and recreation use in BC have been the sole responsibility of that provincial agency under whose legal mandate the specific activity fell (e.g., Forest Development Plans were approved by the Ministry of Forests). To ensure an enhanced degree of integrated management in the MKMA, joint approvals are required for the various local strategic plans (e.g., timber harvesting, oil and gas exploration, or development). Accountability is shared across government agencies having a broad spectrum of environmental and development mandates.

In terms of funding, the MKMA legislation created a new funding mechanism to guarantee an enhanced and stable level of support from the government in combination with private sector funding. In addition to the previously noted Muskwa-Kechika Trust Fund, which provides $1 million annually until 2005, the legislation enables tax-deductible private sector donations to the trust fund that allow a company or interest group to champion or support a project. These donated funds are now matched up to $1 million per year by the government. It is important to note that the trust fund is not intended to replace the annual operating budgets for the resource management agencies in the northeast, but rather to support MKMA-specific planning initiatives and special projects. Again, much of this funding is dedicated to ecological and social research in the MKMA and toward communicating research findings to the communities of the region (MKMA 2003).

Figure 3—Camping beneath the Hoodoos in the Wokkpash Gorge. Photo courtesy of John Shultis.

Finally, a formal role for aboriginal people's participation in implementing the vision for the MKMA has been negotiated. Management of protected areas and Special Management Zones in the area recognize local First Nations (Kaska Dena) rights, culture, and history. Recognition is given to the right of the Kaska Dena to harvest fish and wildlife using traditional or contemporary harvesting methods in accordance with their aboriginal rights to harvest for sustenance, social, and ceremonial purposes. Several First Nations' representatives serve on the Advisory Board (currently seven out of 20 board members). While First Nations are occasionally consulted on aspects of land and resource management in BC, this agreement ensures an enhanced and more formalized role for their participation in the MKMA (British Columbia 1997a).

Current Successes and Future Challenges

The MKMA model provides some meaningful questions to supporters of the wilderness concept. Can the ideas of wilderness and development ever be compatible? In a wild landscape covering over 6.3 million hectares (over 24,000 square miles), can the idea of maintaining wilderness quality be used to guide land use allocation decisions, including resource extraction, or does the idea simply degrade the idea of wilderness? Can a diverse group composed of First Nations, members of the public, and representatives from resource extractive industries successfully maintain the wilderness character of the region, or even agree on how this wilderness character might be defined and measured?

The question of whether the Advisory Board will be allowed to direct and manage (i.e., restrict) economic activity in the MKMA region is also unanswered. Will individuals and communities accept a slower rate of development and the possibility of fewer jobs and other economic spin-offs arising from such actions? Will corporations accept the changes to operational policies that will be necessary to "maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends" as set out in the MKMA Act? The issue of minimizing the creation and maximizing the

Figure 4—Trapping is a traditional activity in the MKMA; old trappers cabin near Harworth Lake. Photo courtesy of John Shultis.

deactivation of roads typically developed for forest and oil and gas development is perhaps the greatest challenge in this regard, as the relationship between road construction and the destruction of wilderness and ecological integrity is well documented (e.g., Havlick 2002).

Perhaps most importantly, will the provincial government allow the Advisory Board to challenge its vision for the region? While the MKMA Act has distinct legislation that empowers and directs the MKMA Advisory Board to manage the region, it remains Crown land owned by the province of BC and is subject to existing government policy. Since 2001, a new, more fiscally conservative government has made significant changes to environmental protection and resource extraction policies. For example, a new results-based policy for Crown land management is being implemented, and industries are basically allowed to write their own management plans as long as they meet specific guidelines set by the government. Critics argue that the enforcement of these results is haphazard at best. Indeed, the enforcement of all types of activities in this remote region (e.g., hiking, logging, mining, or hunting) is recognized by the Advisory Board as extremely problematic, given the size of the region and the decreasing amount of conservation services provided by the government. The current BC government is moving to double the number of oil/gas wells in BC, and has expedited the development of pre-tenure plans for oil and gas development in the MKMA (Craighead Environmental Research Institute 2002).

Thus, many individuals, groups, and social forces will pressure the Advisory Board to maintain the economic status quo (i.e., to facilitate and maximize economic development), and these pressures can only be deflected by strong public support for this new vision. While such support—due in large part to the consensus-based LRMP process and the leadership and vision of the original two LRMP groups in the Fort St. John and Fort Nelson regions—is currently widespread, constant vigilance will be required to maintain it.

In terms of its successes, from its very creation the MKMA has been an innovative community-based approach to sustainable wilderness landscape management. The original LRMP process brought stakeholders together and allowed them to seek consensus on how the land and water base would be managed, while doubling the size and number of protected areas in the province. While other regions were not able to reach such a consensus, stakeholders in three northeastern BC regions agreed to create a unique, comprehensive approach to land use and wilderness management. No other regions in BC created such an integrated, long-term approach to sustainable land use or utilized the concept of wilderness landscapes in distinct legislation to frame regional management.

Through the Advisory Board and agreements with First Nations communities, local residents have taken control over the management of the MKMA to ensure that the agreed-upon objectives in the legislation and policies are met. While the concepts of sustainable development and community-based conservation are currently seen as saviors of 21st-century global conservation, there have been few examples of long-term success as measured by increased ecological health and/or integrity in these areas. Even rarer are areas with largely intact ecological systems, landscapes large enough to maintain ecological processes, and reserves with adequate funding (Terborgh et al. 2002). It is hoped that the MKMA will prove to be successful in maintaining the wilderness of northeastern BC and encourage others to create similar unique, grassroots approaches to wilderness management at the landscape level.

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Figure 5—The MKMA supports a diverse number of large mammals, including these young caribou. Photo by Ken Meadows.

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concerns over the impact of automobile-based tourism on the wilderness. According to Sutter, "What made modern wilderness distinct, separate from the national park ideal, was the *critique* of consumerism that was central to it" (p. 16; emphasis in original). For example, Leopold, in his *Wilderness as a Form of Land Use*, published in 1925, stated that "Generally speaking, it is not timber, and certainly not agriculture which is causing the decimation of wilderness areas, but rather the desire to attract tourists" (cited on page 81). Sutter further suggests that before and after the interwar period, the politics of wilderness focused on the traditional utilitarian conservation versus preservation battle lines.

The founders of The Wilderness Society were responding to a wave of publicity from land agencies eager to maximize the use of protected areas, and to the unprecedented wave of public spending on the infrastructure (e.g., roads, campgrounds, trails) necessary to facilitate and attract users. They were also responding to the broader concerns of the nascent consumer society created in the interwar period; the outdoor recreation craze of the interwar period was itself a manifestation of Americans' newly found predilection and desire to increase consumption. Many were concerned that the automobile would irrevocably alter the wilderness experience, from a constructive and introspective to a more escapist, mechanistic, and destructive experience.

Sutter provides convincing evidence of early wilderness leaders' fixation on the potential impact of consumerism and recreation development on wilderness. While Sutter occasionally is a little overzealous in focusing on his primary theme, *Driven Wild* succeeds in providing an interesting and unique analysis of the rationales provided by wilderness leaders for creating a new society to champion the concept of wilderness in the oft-overlooked interwar period. Readers interested in the history of the American wilderness movement will appreciate this distinctive and impassioned analysis, and will be reminded of the long history of concerns over our consumption patterns on wilderness.

Reviewed by JOHN SHULTIS

Relationships Between Transfrontier Park Managers, Policy Makers, and Resident Indigenous Populations

BY SANDRA SLATER-JONES

Introduction

The creation of transfrontier parks—cross-border resource protection units—is a hot topic on the conservation agenda today. Transfrontier parks are not only heralded internationally as joining resource-rich areas together and enlarging protected areas to further protect biodiversity, but also as providing economic opportunities for resident populations living within or near these parks and creating an atmosphere of cooperation that can promote regional peace (Jaidev and Jackson 1999).

Article author Sandra Slater-Jones.

Borders, because they exist at the interface of autonomous nations and their sovereignty, are strong symbols of the power of nation-states. They reflect and reinforce the power of nations and their identities (Donnan and Wilson 2001). Since transfrontier parks exist at international borders and are important symbols of cooperation between countries, they have greater societal expectations placed upon them than national parks. These expectations include the protection of biological conservation and extend into the realm of social equality and welfare. In short, there are immense social expectations placed upon transboundary protected area managers and policy makers to produce favorable results, often under very contentious circumstances.

Because of their strong spiritual, cultural, economic, and historic ties to the land, indigenous local communities living within or adjacent to transfrontier parks are the most affected by how these parks are planned and managed. Understanding the underlying issues that influence relationships among transfrontier park managers, policy makers, and resident indigenous populations may help identify possible solutions to these challenges.

Case Study Methodology

Three case studies of transfrontier parks are the focus of this article: the Waterton-Glacier International Peace Park, the Kgalagadi Transfrontier Park, and the Great Limpopo Transfrontier Park (Slater-Jones 2002). Semistructured interviews with selected key informants from each of the case studies were conducted between June and September 2002. Nonprobability, purposive sampling was used to ensure that informants were diverse in age, gender, income, level of access to natural resources, and place within the community. For the purposes of this article, common underlying themes evident in all three case studies have been extracted from the longer research report and are presented here as issues.

In 1932, the Waterton-Glacier International Peace Park (WGIPP) joined Glacier National Park, USA, and Canada's Waterton Lakes National Park to become the first transfrontier park in the world. The WGIPP was formulated as a celebration of peace and good relations between the United States and Canada. The WGIPP allows visitors

to experience and appreciate resources that deemphasize boundaries (A. Vanderbilt, personal communication).

The Kgalagadi Transfrontier Park (KTP) was proclaimed on May 12, 2000, through the signing of a treaty between Botswana and South Africa, joining the Gemsbok National Park in the southwestern part of Botswana and the Kalahari Gemsbok National Park, in the northwest part of South Africa. It is one of the few places in southern Africa where wildlife can move freely over vast ranges according to changing weather patterns. It is heralded as the first formalized transfrontier park in Africa, thus serving as a model for other such parks (W. Myburgh, personal communication).

The Great Limpopo Transfrontier Park (GLTP) was created in November 2001, joining the Limpopo National Park in Mozambique, the Kruger National Park, and Zimbabwe's Gonarezhou National Park. Kruger National Park already attracts large numbers of tourists to the southern Africa region due to its incredible diversity of wild animals (including charismatic megafauna) and its world-renowned wildlife management system. With all three protected areas joined together to form one of the largest and most diverse conservation areas in Africa, the tourism potential is expected to reach even greater, if not overwhelming proportions, which will boost the respective national economies.

Following is a description of three major issues synthesized from responses that were common to all three transfrontier areas studied (Slater-Jones 2002).

Issue 1: Dislocation and Relocation of Resident People

In the process of creating national parks around the world, resident indigenous people are often dispossessed of the land upon which they depend. As a result, a severe loss of cultural integrity and political autonomy of many of the displaced groups has occurred (West and Brechin 1991). These kinds of impacts often generate hostility among local resident populations toward national parks and, as a result, impair the success of sustaining these protected areas in the long term.

Figure 1—GLTP residents do not want to move from their villages to the proposed irrigated buffer zone despite drought and harsh living conditions. Photo by Richard Slater-Jones.

In WGIPP the loss of aboriginal land by certain Native American tribes, now living in reservations adjacent to the park, has caused long-standing bitterness that continues to erode the goodwill necessary for mutual cooperation between the tribes and the parks. Fourteen thousand registered members of the Blackfeet tribe (Gallagher et al. 1999) currently live on a reservation bordering the eastern edge of the WGIPP in northwestern Montana. They lost their land in cession to the federal government in 1895. The Blackfeet had no choice but to sell their ancestral land because, as Bryan (1996) describes, they were marginalized and completely dependent on the federal government at the time. Bear Medicine Bailey Peterson, a Blackfeet tribal member, describes a large proportion of the payment for the land was the irrigation systems that the Blackfeet had to build themselves and which did not ultimately benefit them (B. Peterson, personal communication). Some of the Blackfeet describe the term *land cession* as a polite way of saying "confiscated" (Burnham 2000). These century-old land issues remain entangled in current politics, thereby confusing trust and preventing harmony.

When national/international goals and local values conflict, highly collaborative processes involving local versus national interests seem vital.

Figure 2—The general sentiment of GLTP residents states "We will not leave our land!" Photo by Richard Slater-Jones.

The loss of heritage and rights has grown larger in issues of ownership and control of resources in the WGIPP today. As a consequence, there is a rift in the relationship between the park agencies and the tribe, although over time collaboration and cooperation have improved substantially.

The results of dislocation are further evident in the case of the Kalahari Gemsbok National Park formation in 1931 (now part of the KTP), when the Nlamani and Khomani San (Bushmen) aboriginal people were forced out of their territory. They were moved to settlements outside the park where conditions have deteriorated over the years—enveloping the communities in extreme poverty, severe cases of malnutrition, and social disparity. The Mier community, another culture group that occupied territories in the park area before it was established, was also forcibly removed from its land and deprived of good economic opportunities. Today, the people of that community live under poor conditions, including low levels of education, insufficient employment opportunities, limited markets, and acute lack of social welfare services (Engelbrecht and Engelbrecht 2000). In 1999, the South African National Parks, after lengthy court proceedings, agreed to relinquish control of 135,905 acres (55,000 hectares) of the park, which was divided between San and Mier (Cock and Fig 2000). The San and the Mier have agreed that the land remains part of the park as a protected area. The land claim agreement of San communities has shown no evidence of improved livelihoods (E. Koch, personal communication; D. Grossman, personal communication). Rural poverty and deprivation must be understood so that further job possibilities and partnerships can be identified (Fig 2000).

Figure 3—With so much at stake, the future of the GLTP must be carefully considered. Photo by Richard Slater-Jones.

Similar dislocation and relocation of indigenous residents is an issue in a transfrontier park in the making—the GLTP. During the Mozambique civil war (1976–1992), many people fled the country to South Africa. After the war, many returned to the regions where their ancestors were buried and were reunited with their families. Today, there is a population of about 30,000 people living within the Limpopo National Park (Mozambique portion of the GLTP). There are about 6,500 people living along the Shingwedzi and Elephant Rivers, in the area in Mozambique proposed to be the Tourism Zone of the park. The GLTP management board has proposed the relocation of these people to a proposed buffer zone, the 643-mile (400-kilometer) eastern

boundary of the GLTP along the Limpopo River, where 16,000 people already live. As an offer of compensation, the project proposes that housing and irrigated fields will be provided to the relocated communities in the new support zone. As far as the Shangaan community members living along the Shingwedzi River are concerned, relocation will have a huge impact on their lifestyle. At least 98% of these community members interviewed from different village, class, age, and gender distinctions expressed that they were unwilling to move even if offered compensation.

Relocation strategies are likely to fail if they do no have support from the people affected, and this reality has considerably slowed the pace at which the proposed actions are being implemented in the GLTP. Other alternatives include leaving unwilling communities intact along the river, where a second resource zone (in addition to the Limpopo Buffer Zone) could be created to prevent animal-people and people-park conflicts occurring in the current region allocated for tourism. Additionally, the second resource zone may be declared a cultural zone, where tourists can take part in cultural and traditional activities, if supported by the local community. These additional options could create opportunity for aid and development-related tourist programs, adding to value and diversity of the GLTP and preventing unnecessary consequences of relocation.

It is recognized that transfrontier parks create new ecological corridors joining resources across borders, but park authorities must also consider the needs and rights of the people who depend on these areas for livelihood and survival. If this is not done, the result will be long-term damage to the trust and cooperation between transfrontier parks and resident people.

Figure 4—Kgalagadi residents take a long journey through the desert by donkey cart to fetch water. Photo by Sandra Slater-Jones.

Issue 2: Conflicting National Versus Local Interests

Conflicting interests often arise from the value differences regarding the appropriate use of natural resources or between local communities and national interests. Transfrontier parks usually consist of national parks set up by national institutions with national constituencies. Local communities, on the other hand, are influenced by issues and needs of a more local nature. This difference makes it likely that conflicting interests will occur.

One of the major conflicting issues occurring in the WGIPP is hunting. The 1895 land agreement between the Blackfeet Tribe and the U.S. government stated that the tribe had reserved the right to "cut and remove wood and timber for houses, fences, and all other domestic purposes, to hunt upon the land, and to fish in the streams as long as it remains public land of the United States" (Bryan 1996). According to Burnham (2000), the Blackfeet held those rights until Glacier National Park was created in 1910 and the local hunting rights were revoked. As a result, today many Blackfeet Tribal members are bitter toward the WGIPP and feel denied of their rights to hunt in an area that they consider to historically belong to them.

Similar to the issue of hunting in the WGIPP is the issue of cattle in the GLTP. Local people who wish to remain in the GLTP with their livestock will pose a serious ecological threat. Wild animal

Figure 5—WGIIP—heritage of the Blackfeet and Salish-Kootenai tribes. Photo by Sandra Slater-Jones.

Figure 6—One of the few locally run tourism businesses in the WGIPP—Sun Tours. Photo by Sandra Slater-Jones.

populations, for instance, may be affected by the presence of livestock through disease transmission, and wild animals may pose a threat to livestock and human lives. Although fencing in the villages is proposed, complications may occur when considering that extensive agricultural fields need to be fenced. No matter how well transfrontier parks are able to accomplish scientific and ecological goals, conflicting social and moral imperatives will always exist (West and Brechin 1991). When national/international goals and local values conflict, highly collaborative processes involving local versus national interests seem vital.

Effective relationships between the local people and the park to enhance and maintain shared values require communication, mediation, and negotiation between these stakeholders, along with joint problem solving (West and Brechin 1991). For transfrontier parks to be successful, a focus on common interests and common goals is needed. Compromise and adaptation on the behalf of all stakeholders is necessary if cooperation and stability are to be maintained.

Most transfrontier parks have better scientific and biodiversity information than social analyses. More attention is needed on the stated social goals and the processes needed to achieve them—particularly policies to create an acceptable balance between the conservation efforts of transfrontier park managers and the rights of resident indigenous people who rely on the local natural resources.

Issue 3: Missed Socioeconomic Opportunities

Although there is an appreciation of the potential conservation benefits of transfrontier parks from the improved protection of natural heritage and biodiversity, the potential socioeconomic returns are lacking or not realized. Job opportunities in tourism generally benefit a small minority of local residents. The Blackfeet tribe living adjacent to the WGIPP have a poor local economy, with 50% unemployment (Burnham 2000). Jobs created through tourism in the WGIPP are not sufficient to solve the tribe's economic problems. Similarly, in the GLTP there are neither long-term funds nor capacity to meet all expectations of communities (A. Van Wyk, personal communication), and in the KTP job opportunities for local people in tourism are still few and far between.

Although ecotourism does not always have the capacity to provide sufficient jobs for local residents, new possibilities may provide further and extended opportunities. Cultural tourism is one possibility and is currently underutilized. Tourist interests in transfrontier parks might include the cultural elements of the protected area, and development of cultural aspects could increase public interest in a particular area. Creating cultural zones may enhance the status of transfrontier parks and expand the range of experiences to meet diverse interests. Such development of cultural resources, in collaboration with the resident communities under local leadership, would seem logically a source of jobs as well as pride in heritage and protection of the area.

Rather than merely being token beneficiaries of transfrontier parks, local communities need to become real partners through ownership rights and decision making. It is important that transfrontier park managers can embrace a range of alternatives to deliver local economic benefits, such as current activities: contract work for park infrastructure construction in the KTP; consultancy work, ecological management, and monitoring in the WGIPP; and craft production for the local and international market proposed for the new GLTP. As more partnerships are established with resident people that include opportunities for their economic benefit, support for the protected area increases and marginalization of local residents will be reduced. Partnerships between private sector, park, and resident participants create a solid foundation from which local economic opportunities can grow.

Conclusion

Conservation today calls for a greater awareness of human rights and social issues. It is important that managers and policy makers of transfrontier parks understand the negative social consequences of many past approaches and rebuild broken bonds between park management and resident people. New transfrontier parks require policies that address the needs of local populations. If transfrontier parks are to fulfill the promise of economic growth and community capacity building, it will require respect for the integrity, importance, and values of local cultures, and opportunities for communities to promote their own goals and priorities. Despite improved relationships between protected areas and resident people over the last two

decades, this study found problems to address in three transfrontier parks: displacement of indigenous people, conflicting local and national interests, and missed socioeconomic opportunities. Many examples and opportunities noted in the interviews with key informants are encouraging in terms of progress being possible. Such progress is essential in realizing the goal that "Transfrontier Parks ensure peace, prosperity and stability for generations to come" (Borchert 2002).

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Figure 7—Villagers living along the Shingwedzi River in the GLTP completely rely on the natural resources of the area to survive. Photo by Richard Slater-Jones.

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of a high level Wilderness Policy Council has, for the first time, provided an interagency forum for discussion of programs and priorities. Much of the council's initial efforts have been focused on responding to the recommendations in the 2001 report of the Pinchot Institute for Conservation, *Ensuring the Stewardship of the National Wilderness Preservation System* (see http://www.pinchot.org/pic/wilderness_report.pdf). Recognition of the importance of common problems faced by the wilderness agencies, together with the synergy found in leveraging limited resources to address common issues, provides hope that the model of a dedicated, base-funded interagency program of wilderness management science is here to stay.

More information about both the research and application programs of the Leopold Institute, including summaries of key projects and publications, can be found at http://leopold.wilderness.net.

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Adventure Racing in the Wild

BY LINDA MOFFAT

Article author Linda Moffat (third from left) with her Eco-Challenge teammates.

Using wildlands for adventure racing has come under increasing scrutiny during the past several years as adventure racing sports have become more mainstream. Practitioners' perspectives may be helpful in gaining insight into the motivations, experiences, and impacts of this (sometimes) wilderness-dependent activity.

Participants and Events

Participants are from every possible background. Though backgrounds vary, participants' personal criteria are similar and singular—the need for maximum challenge and a dedication to rigorous physical training. For example, I am a professional marketing consultant and personal career coach. I began competing in 1997 in the Eco-Challenge 24 to 36 hour qualifier race held in Pt. Mugu, California. Only three of the top finishers would go on to participate in the 1997 Eco-Challenge five to 12-day Expedition Race in Australia.

In 1997, adventure racing was still new to the public, though it was already well established within an interested and relatively small group of people from around the world. While every participant I met was a true adventure lover, my attraction to them was based on their respect for nature and the wilderness. They also knew that racing is not actually about individual competition, rather it is about teams challenging each other, against the clock, in nature. Because of the varied nature of the sport and the challenges inherent within it, both physical and interpersonal skills are needed to successfully compete. As a result of all these factors, adventure racing participants are very different type from people I had met while doing triathlons—a sport that I now regard, when compared to adventure racing, as very linear and controlled.

What hooked me on adventure racing was the set of questions every racer must face: How will I survive? How will I keep moving forward when I am suffering—mentally, emotionally and physically? How will I set aside all my emotions in order to assist the weak person on my team when that person is making us lag behind? Will I be able to reach deep inside myself and keep going at the moment when I am the weakest person? The internal stirrings and questions felt during a race are a compacted version of life. The issues are forced to the surface—and the racer must deal with them immediately. Procrastination may cost time and is potentially life threatening. I relish the adventure-racing challenge.

Many types of events can fall under the umbrella of "adventure racing. I refer to a one- to multiday, multisport event, usually consisting of three-, four-, or five-person teams (usually with at least one female as a member of the team) traveling across hundreds of miles of open ocean, lakes, rivers, mountains and/or jungles, with a map and compass, checkpoints to reach, and a time deadline to finish. There are no direct paths, no markers to tell you where to go, and—usually—no support crews to assist your team in getting from point A to point B. The races are held in all

areas of the world, such as Africa, Malaysia, Europe, New Zealand, Australia, China, and, of course, the United States. The multiple sports tend to focus on the terrain of the land and country in which the races are held. They consist of trail running, hiking, mountain biking, some form of paddling—kayaks, canoes, outrigger canoes, rafts—horseback riding, ropes work—ascending and descending mountains—and navigation. A map, compass, and person who has strong navigational skills (no GPS equipment allowed) is critically important in these events. Without these key resources, the entire team can get lost and physically depleted as they struggle to find their way through the course. Most teams race with very little sleep (two to three hours a night, if that); sleep deprivation is one of the many challenges in keeping a team moving forward.

Adventure racing must be similar to the type of scenario faced by original explorers and adventurers, who had to cope with life and death decisions in the wild. It requires working through complex and continuing challenges without the technology and comforts provided by the modern world. I contend that these comforts blind us to "real" life and alienate us from understanding the importance of wise, balanced use of precious natural resources and the need to sustain wilderness. Adventure racing helps me, and all other participants I know, choose a world with wilderness rather than one of just cement walls and sidewalks.

History and Impacts of Adventure Racing

There has been much discussion about the impacts of adventure racing, and, thus far, it appears to be constructive, but more information and continued discussion is needed. To further this process, I asked a couple of adventure racers whom I respect immensely to comment on what it means to them to pursue their sport in the wild. I respect them not just as athletes, but also because of their philosophy on life and how their lives and everyday activities weave into nature. The two interviewed were Ian Adamson, three-time winner of the well-known and prestigious Eco-Challenge and first-place finisher of Raid Gauloises, along with multiple first-place finishes in other well-known adventure races; and Adam Chase, an adventure racer and snowshoe racer, best known for his multiple first-place wins in the area of ultratrail running races (50- to 100-mile races). Both provided me with great comments on their perspectives.

Though adventure racing began to receive public attention in the mid 1990s, the following excerpt from Ian Adamson's forthcoming 2004 book, *Runner's World Guide to Adventure Racing*, tells the story of how team racing started in the mid-1980s.

> In 1987 French journalist Gerard Fusil was covering the BOC Challenge, a solo around the world yacht race, and it sparked an idea to have a similar race, but for small teams of men and women with no mechanical assistance. His concept was to have coed teams consisting of five people on a "ground" team navigating vast distances over rugged wilderness, supported by two people on the "logistics" team. The original race was held in New Zealand in 1989, much to the delight of John Howard who, along with his teammates, thought the whole thing would be a great way to play in their backyard. These set the stage for a dynasty of racing in which Howard would win three of every major international race and then retire to raise a family in his bus with his Japanese wife.

Figure 1—Ian Adamson mountain biking in Moab, Utah. Photo courtesy of Linda Moffat.

Figure 2—Rappelling on an adventure challenge race. Photo courtesy of Linda Moffat.

I asked both competitors how adventure racing changed or impacted their life, and what value they see in this (sometimes) wilderness-dependent activity. Ian commented:

FYI—Image 3 was too low in resolution to use.

Figure 3—Water travel like kayaking is part of many races. Photo courtesy of Linda Moffat.

Adventure racing provided me an opportunity to enjoy a lifestyle that incorporates wilderness backcountry travel, cultural experiences, athletic/mental challenge, and a closer look at the environment and our impact on it, with an income-earning source. I suspect that most adventure athletes do not come from a competitive athletic background, rather they are drawn to the sport from enjoyment of the outdoors and use it as a way to participate in a challenging but social wilderness sport.

Adventure racing does not necessarily involve wilderness, as there are plenty of urban and even indoor races around. That said, two of the biggest attractions to adventure racing (for me) are the interesting countries and different wilderness environments we get to experience. Places like Tibet, Mongolia, Madagascar, Borneo, Greenland, Lesotho, New Zealand, Newfoundland, and Labrador … the places, people, history and natural environment are all part of the experience.

I've been extremely fortunate to [have been] involved in adventure racing since the mid-1980s and consequently have been able to leverage my experience along with the explosion of the sport in the U.S. over the last five years. This has allowed me to base my income and lifestyle around wilderness events as an athlete, writer, television producer, and public speaker. In doing so, I have had a great opportunity to expose more people to the wilderness and give them an appreciation for its beauty and value. Hopefully, this will encourage them to experience it and feel invested in preserving the natural environment.

The "off-trail" argument may have some reason for concern. However, no adventure racing in the United States allows off-trail travel in ecologically sensitive areas, and virtually all races incorporate heavy penalties for athletes who break these rules. Adventure racing is prohibited in designated wilderness areas and is heavily restricted in national parks. [Bureau of Land Management] land is open to use after a permitting process, and generally only through lands that are open to 4x4 vehicles, [all-terrain vehicles], motorbikes, horses, cattle, and mining.

Adam Chase, a native of Boulder, Colorado, voiced some concerns:

> The littering and disregard for the natural beauty through which we race, as I saw at the New Zealand Eco-Challenge, didn't sit well with me from an environmentalist standpoint. That concern only escalated last year when the Subaru Primal Quest was held in Telluride, [Colorado,] despite the raging forest fires in the region and the fact that the race created a great demand on what were already overtaxed limited human resources when it came to rescue/safety personnel. It is sad, but many adventure racers and a few race directors care more about the competition and race promotions than about what they are doing and where they are doing it.
>
> I don't want to sound overly skeptical, because adventure racing and the coverage of the sport motivates people in a unique way to experience the natural environments through which they race. Last year I did the Raid Series race in Sweden and Norway and, despite the fact that we were in those countries for only four days total, I felt an affinity and respect for those lands that I never would have gained had I been on a guided tour. Seeing the countryside from the perspective of a racer is very different than touring it via motorized transport, stopping at "points of interest" and sleeping in B&Bs. Not that I didn't long for a bit of the creature comforts that come with all that, but it is so far removed that it almost feels censored when compared to the

To enjoy and ensure the protection of our precious wild resources and wildlife, we all need to be accountable for our actions.

raw exposure one gains from adventure racing. Hopefully, adventure racers and race directors are becoming more sensitive to the environment, and the Leave-No-Trace ethic will be put into play so that the sport will result in a net benefit to the environment because of the inspiration it gives people for nature.

Despite the obvious financial interests in the business of adventure racing, I believe there is also a conscientious effort to ensure that the race environment and terrain are not abused and, hopefully, are respected. To enjoy and ensure the protection of our precious wild resources and wildlife, we all need to be accountable for our actions. It's an individual conscious effort. Every recreational pursuit will have some environmentally unethical participants. As Adam mentioned, we all need to integrate the Leave-No-Trace ethic into our everyday lives. Adventure racers need to be educators, as Ian has become through his experiences and lifestyle as a true adventurer.

Humans have an amazing ability to adapt. It is one of the great lessons I have learned through racing. When challenges occur and life gets tough, take a deep breath and keep moving forward. It is when we adapt to what life throws at us that we become stronger human beings. If we all take a proactive stance and do a little adapting, we can come together as a "team" and make progress toward saving the "wild."

LINDA MOFFAT has competed over the past six years in multiple 24- to 36- hour adventure races, as well as two Eco-Challenge Expedition Races in Borneo, Malaysia, in 2000 and New Zealand in 2001. Linda has climbed Mts. Kilimanjaro, Rainier, Kinabalu, Shasta and multiple peaks in Patagonia and New Zealand. She can be contacted at lindammoffat@msn.com.

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the condition of that wilderness resource will be, is entirely dependent on our efforts today to educate and invest dollars in the education of tomorrow's managers and visitors.

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Interpersonal and Societal Aspects of Use Conflicts

A Case Study of Wilderness in Alaska and Finland

BY JOAN KLUWE and EDWIN E. KRUMPE

Abstract: Wilderness conflicts in Finland and Alaska are multifaceted, with recreation uses increasingly conflicting with subsistence activities. To investigate these conflicts, over 70 interviews were conducted with subsistence users, representatives from guide companies, local residents, land managers, and nongovernmental organizations in Alaska and Finland. While goal interference and scarcity of resources are factors in many conflicts, social and cultural factors (e.g., traditional values and rights issues) play important roles too. Conflicts that appear at first to be direct and tangible may be symptoms of underlying societal, judicial, and philosophical conflicts.

Introduction

Rural people in Alaska and Finland exhibit strong ties to the land, including legally designated wilderness areas, for subsistence purposes. These traditional activities reflect intricate relationships between humans and the environment (Endter-Wada 1996; VanZee et al. 1994). Similarities in relationships between the people and lands of the far north include contemporary and historic conflicts between urban and rural people, conflicts between indigenous and nonindigenous people, and conflicts between subsistence and recreation activities. The overall goal of this project was to identify components of land use conflicts in Alaska and Finland wilderness and to examine how those components interact to create the conflict situations.

Article coauthor Joan Kluwe above the Kanektok River in southwest Alaska. Photo by Larry Barnes.

Article coauthor Ed Krumpe.

Subsistence and Wilderness

Subsistence activities include fishing, hunting, gathering, and herding animals (particularly reindeer in Finland), and, generally, traditional cultural practices, traditional activities for sustaining life, or traditional occupations that provide a minimal livelihood. Subsistence activities typically rely on natural resources, such as land and water, and the animals and plants they contain.

Subsistence uses have long occurred within and adjacent to legally designated wilderness in both Alaska and Finland (Aikio and Aikio 1989; Endter-Wada 1996). In both locations, indigenous and nonindigenous people actively engage in subsistence lifestyles, predominantly based from rural communities. In both locations there are perceived threats to the continuance of subsistence lifestyles, including threats to land and natural systems, threats to a continuance of culture, and threats to rights of access and use.

(PEER REVIEWED)

Alaska and Finland have relatively new wilderness legislation. Erämaalaki (The Act on Wilderness Reserves) was passed in Finland in 1991; it established 12 wilderness reserves in northern Finland, all north of the Arctic Circle. The 1980 Alaska National Interest Lands Conservation Act established several special provisions for Alaska wilderness, distinctly different from the 1964 Wilderness Act. In both cases, legislation was influenced by local demand for continued mechanized access to areas traditionally used for subsistence. In both areas, snowmobiles and airplanes were allowed, while Alaska also permitted motorboat access and Finland permitted all-terrain vehicles (ATVs) within wilderness. Structures, such as cabins, were allowed in both Alaska's and Finland's wildernesses for various uses, including public recreation. Both pieces of legislation also acknowledged and allowed recreation and tourism uses. In many respects, wilderness policy in Alaska aligns more readily with wilderness policy in Finland than with much of the rest of the United States, as many of the above-mentioned uses have been prohibited elsewhere by the 1964 Wilderness Act. Subsistence activities are not a predominant use in wilderness in the lower 48 states (VanZee et al. 1994).

This study focused on the northwest arm of Finland and southwest Alaska between 1999 and 2001. In Finland, people near Käsivarsi and Pöyrisjärvi wildernesses were interviewed in several communities. Both wildernesses support subsistence uses, particularly reindeer herding, though Käsivarsi wilderness has more recreation use. Near the Togiak Wilderness within the Togiak National Wildlife Refuge in Alaska, people in three nearby communities were interviewed. The predominant subsistence uses in the area were fishing and hunting along the major river corridors.

Methods

While there has been substantial research on recreation conflicts (Kajala 1993; Schneider 2000), there has been little research on conflicts between subsistence and recreation activities (Kajala and Watson 1997; Wolfe 1988). Recreation conflict studies historically focused on human behaviors that interfere with recreation goals, and only more recently on social value conflicts (Vaske et al. 1995). While goal interference is a factor in many conflicts, social and cultural issues often go unaddressed.

Snowball sampling with multiple origins (i.e., interviewees are asked to nominate additional sources of information) was used to identify key informants on conflicts (Miles and Huberman 1994). Semidirected interviews were conducted with individuals, interest groups, community representatives, and representatives from managing/regulatory agencies. Interviews were conducted with people having a variety of perspectives concerning conflicts between subsistence and recreation uses: (1) local residents and community representatives who were familiar with subsistence uses, traditional lifestyles, and contemporary uses of wilderness resources; (2) representatives from tourism businesses familiar with past and present recreation uses in the area (e.g., dog safari and sport fishing companies); and (3) representatives from managing or regulatory agencies familiar with policy

Figure 1—Larry Barnes practicing catch and release fishing on the Kanektok River. Photo by Joan Kluwe.

Figure 2—Subsistence anglers work with their net in the Kanektok River. Photo by Joan Kluwe.

Table 1—Examples of Components of Conflict.		
	Tangible Conflict	**Intangible Conflict**
Micro level	Interpersonal/intergroup conflict Subsistence vs. recreation Reindeer herding vs. dog mushing Subsistence fishing vs. sport fishing	Social value conflict Clash of value systems Nonlocals don't understand or respect traditional ways.
Macro level	Societal level interpersonal/ intergroup conflict Conflict with agencies Commercial permit administration	Societal level value conflict Rights issues Land access Decision making Self-determination

related to subsistence regulations and administrative aspects of wilderness.

Interview questions focused on types of subsistence and recreation uses occurring, perceptions of the types of conflict occurrences, who had been involved in conflicts, changes in conflicts, and roles in conflict situations. Interviews were tape-recorded as permitted by the respondent and the interview location. While the majority of the interviews were conducted in English, Yup'ik and Finnish translators were used during several interviews in Alaska and Finland, respectively. The translators were local residents familiar with the respondents and the local area. The translators in Finland were social researchers or students familiar with qualitative research methods.

In the standard process of qualitative research (Marshall and Rossman 1999; Miles and Huberman 1994), data collection and analysis occurred concurrently. An open coding process (Strauss and Corbin 1998) was used to identify phenomena and group phenomena into categories. As concepts and patterns emerged from the coding process, they were compared with concepts from secondary sources of information. For example, a pattern found from a personal interview could be sought in other interviews as well as in contemporary media. As patterns were discounted and confirmed, relationships in the data were identified.

Results

Interview participants identified a variety of groups as having a stake in the conflicts. Consistent with the human propensity to categorize (Tajfel and Turner 1986), these were often identified as between-group conflicts (us versus them). From this information, five dichotomies of conflicting groups were identified: local/nonlocal, rural/urban, indigenous/nonindigenous, national/foreigner, and manager/citizen. For example, conflicts were identified between local indigenous groups and local non-indigenous groups.

Between-group conflicts could be classified along axes of tangibility and social scale (see Table 1). Tangible conflicts have specific, observable episodes or events that create antagonism, such as when a recreational dog musher disturbs reindeer herded together for subsistence purposes. Intangible conflicts may or may not encompass tangible events; regardless, they involve differences in values or ethics—that is, an intangible dimension. The disturbing noise created by the dog musher may not be viewed merely as inconsiderate, but as violating an ethic or value. Along the societal axis, *micro* refers to an interpersonal or intergroup level, and *macro* refers to broader societal levels, including societal institutions. Some of these conflicts seem to fit within prevailing typologies (e.g., Jacob and Schreyer 1980; Vaske et al. 1995), while others do not. Thus, this typology encompasses and expands upon former conflict research.

Tangible Conflict—Micro Level

In Finland, there were asymmetrical conflicts between subsistence reindeer herders and recreational users, including dog mushers and snowmobilers. Reindeer herders were disturbed by recreationists, but recreationists were not particularly disturbed by reindeer herders. Reindeer herders felt that sled dogs and snowmobiles spooked the reindeer

Figure 3—Midwinter light on the northwestern Finnish landscape. Photo by Joan Kluwe.

herds, dispersing the herds and rendering weeks of herding useless.

Intangible Conflict—Micro Level

Subsistence users in Alaska and Finland felt that outsiders as a group did not understand or respect traditional ways of life. For example, Yup'ik traditions include respect for animals as sentient beings (Wolfe 1988). If an animal offers itself to be taken for food, the animal is to be respected, taken, eaten, and all parts used. In contrast, the highest ethic of sport fishing includes catch-and-release practices, returning the fish to the water so as to not impact the fishing resource (Hummel and Foster 1986). The two ethics are perceived to be in opposition to each other. A common Yup'ik view is that the sport anglers are disrespecting the animal's spirit. Thus, in addition to the immediate, tangible conflict, there is an important intangible dimension. The conflict is manifested in actual interpersonal interactions (i.e., at the micro level).

Tangible Conflict—Macro Level

In Alaska and Finland, conflict involving the management agency was identified regarding the number of recreational users permitted in an area, particularly the number of commercial use permits available. Generally, in both countries, local people did not want more commercial or recreational users, whereas the other groups wanted more access. These are tangible conflicts because the permits are commodities or assets that could be exchanged or assigned value. Managing agencies have the power to determine uses and use levels on public lands (rights to access). While public land agencies have been making large steps to involve local citizens and to incorporate public comment in the planning processes (Daniels and Walker 2001; Loikkanen et al. 1999), there were still many people who felt their voices were not heard or were later ignored by the agencies. Conversely, the agency representatives felt that some of the issues raised by the public were not merely beyond the scope of the planning process, but beyond the present management authority of the agency. These types of conflicts focusing on how stakeholder groups contain different intangible values and the differences between the public sector and management (Allen and Gould 1986; Shindler 1999).

Intangible Conflict—Macro Level

Rights to access, rights to decision making, and rights to self-determination emerged as a societal level of conflict and are considered intangible because they focus on broad philosophical issues rather than identifiable events. The participants in these conflicts were largely, but not exclusively, aligned by regional and ethnic identities. The conflicts transcended agencies and were directed at higher levels of government, such as national legislatures or global organizations. For example, in both Alaska and Finland local indigenous interviewees discussed the possibilities for Native sovereignty. They felt the existing ownership and management schemes were not valid—that the indigenous people were the rightful owners of the land. Questions were raised by the interviewees regarding who has the right to act as leader or as participant in the planning processes.

Figure 4—Recreational snowmobilers enjoy the spring weather in northwest Finland. Photo by Teppo Loikkanen.

Conclusions

It is difficult to neatly separate the components of conflict. All four components, or some combination thereof, may characterize an individual's position. Not all conflicts will display all

Figure 5—Reindeer are fundamental to subsistence lifestyles in northwest Finland. Photo by Joan Kluwe.

components. However, complex conflicts such as intangible conflicts at the macro level may embody all of the other components of conflict. For example, a debate concerning rights to ownership may include moral issues regarding oppression and domination as well as examples of past tangible events that illustrate oppression and domination on an individual or societal level.

These four components of conflict have direct implications for resource managers. Tangible conflicts at the micro level have been extensively addressed by researchers. As a result, agencies have been able to address direct conflicts between groups, where such conflicts involve direct interaction among people with little symbolic conflict. For example, classic management techniques such as zoning (Haas et al. 1987) can separate incompatible groups or draw together compatible uses, thereby alleviating tangible conflict.

Figure 6—Finnish reindeer herders work on the fall round-up. Photo by Joan Kluwe.

Resource managers have often focused on tangible conflicts at the macro level, such as those concerning allocation of scarce resources. Planning tools such as the Limits of Acceptable Change (Stankey et al. 1985) have assisted managers in addressing some of the allocation questions (and their ethical implications) with a broader lens than zoning or carrying capacity determinations allowed (Graefe et al. 1984).

Social value differences have also been addressed in a variety of ways in recent years. The micro level has been examined in recreation research (Vaske et al. 1995), focusing on value differences between groups with different orientations. Education programs have been suggested to increase understanding of conflicting values as has segregating user groups by zoning to decrease potential direct encounters.

Rights to access, rights to decision making, and rights to self-determination are intangible macro-level social values that underlie many land use conflicts in wilderness in Alaska and Finland (Kluwe 2002). These appear to be the most complex types of conflict, often encompassing other components of conflict.

Some techniques of investigating wilderness conflict may not reveal all dimensions of conflict. If someone mentions a tangible or micro-level conflict, one must probe into whether the conflict has deeper philosophical or societal roots. Some issue-driven management processes may be limited by directing efforts toward concrete, trackable actions, addressing conflicts exclusively at the micro tangible level.

Macro-level social value conflicts, including rights issues, are intractable because they are much larger than most managing agencies have the capability to effectively address. Some of the more fundamental rights questions have been pursued in global forums, such as the United Nations Human Rights Council, but individual nations continue to struggle with indigenous rights issues (Kirsch 2001). Creative ideas are needed to begin to address these conflicts in the context of specific subsistence versus recreation conflicts in wilderness.

Managers may need to expand beyond the confines of agency mandates and frameworks to consider some of the underlying components of conflict rather than merely targeting the more readily observable tangible conflicts. Acknowledging these larger societal conflicts more accurately represents actual conflict contexts and brings voice to the larger issues—possibly freeing managers and citizens to then focus attention on the more tangible issues. Managers could establish mechanisms with other agencies, nongovernmental organizations, and tribal organizations to address the intangible social and philosophical issues. Such forums as working groups, advisory councils, and joint projects could be effective in developing strong relationships to understand and address these intangible conflicts.

In addition, indigenous rights groups and others (e.g., Alcorn 1993; Lane 2001) have suggested shifting to a comanagement structure to increase local voices in natural resource issues, enhance local self-determination, and address conflict at a societal level. Wilderness designation, or other protected area status, has been overlaid on historic indigenous territories. These designations have strong implications for future management of natural resources. Micro-level tangible conflicts have been easier to address in public planning processes; however, societal, judicial, and philosophical questions often remain as underlying factors. Wilderness managers dealing with subsistence issues need to look

for issues transcending tangible conflicts as they endeavor to understand and manage local situations.

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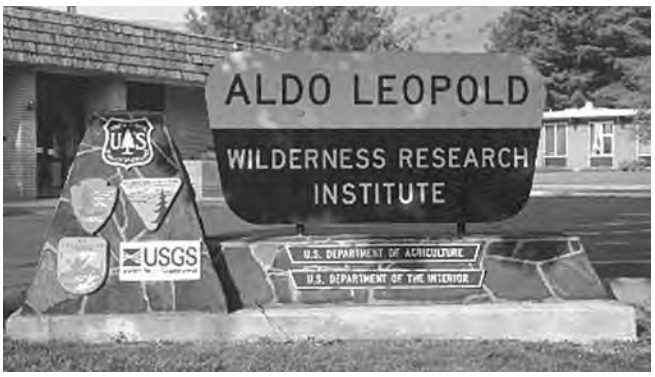
PERSPECTIVES FROM THE
ALDO LEOPOLD WILDERNESS RESEARCH INSTITUTE

A Decade of Coordinated Wilderness Research

BY DAVID J. PARSONS

On August 21, 1993, high-ranking officials from the U.S. Department of the Interior and the Department of Agriculture, along with representatives from universities and nongovernmental organizations, joined Minnesota congressman Bruce Vento in ceremonies dedicating the newly established Aldo Leopold Wilderness Research Institute in Missoula, Montana. Envisioned as the focal point for the development and application of information necessary to understand and manage wilderness ecosystems and their use, the institute provided a mechanism for the federal agencies charged with wilderness management responsibilities to address their research needs (Bureau of Land Management, Fish and Wildlife Service, Forest Service, and National Park Service). Although the Leopold Institute was initially formed from the Forest Service's pre-existing Wilderness Management Research Work Unit, the intent was that all four agencies would be active partners in support of projects and programs to provide the science necessary to address important wilderness management issues.

Now that 10 years have passed since the Leopold Institute's establishment, it is instructive to reflect on what has been accomplished during this time. Perhaps most significantly, the institute's programmatic scope has broadened considerably from its original focus on recreation use, impacts, and management to include such issues as the understanding and management of fire, nonnative species, and wildlife, as well as the understanding of the role wilderness plays in larger social and natural systems. This expanded scope has been responsive to the needs expressed by the partner agencies. It has led to the study of such diverse topics as the effects of recreation fee programs, subsistence use, the risks and benefits of restoring natural fire, surveys of invasive species, the effects of stocking nonnative fish in mountain lakes, and the causes of declining amphibian populations. Institute scientists have



helped to articulate research needs as well as conduct research and serve as brokers to engage university and other federal scientists in cooperative and collaborative studies. A significant program of research application, the linking of science to management through improved understanding of the need for and use of research information, has also been developed. However, the fact that this increased breadth has come largely without increased financial or staffing support has now stretched limited resources to the point that the institute's ability to continue its current level of activity may soon be threatened. Compounding this dilemma is the interest of the partner agencies in the institute expanding its effort into a collaborative or coordinating role with scientists working on topics such as air, water, wildlife, and global change—areas for which the Institute has only limited expertise. To achieve this goal, efforts would need to focus on identifying and developing new partnerships and funding sources.

In developing a program of work, institute staff has worked closely with representatives from the wilderness agencies to assure that research and application priorities address important management needs of all the agencies. The 1999 establishment

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Wilderness Benchmarking

Is Visitor Acceptability Creep a Concern or Not?

BY JOSEPH P. FLOOD

Introduction

In recent decades, heavy visitor use in many wilderness areas and subsequent impacts to the wilderness resource have changed the focus of wilderness management. Humans are amazingly adaptable and prone to perceiving a first experience as the "norm," and, as a consequence, establishing a benchmark for acceptable conditions. This conceptualization suggests that a chronological pattern can take place for both new visitors and new managers. As wilderness areas become increasingly crowded and impacted through use, degraded resource conditions can become the benchmark for new visitors or managers. Some research suggests that both visitors and managers may be accepting higher levels of degradation based on two things: the concept of initial benchmarking and the gradual acceptability of changing resource conditions in wilderness over time.

Recreational impacts on biophysical resources of wilderness are a worrisome problem to managers charged with the responsibility of maintaining natural conditions. For the purpose of this article, impacts to the biophysical resource are defined as loss of vegetative cover and soil compaction and erosion at campsites, lakeshores, meadows, and along trails. Natural or pristine conditions are areas predominately influenced by acts of nature and not by impacts related to recreational use. The purpose of this article is to expand discussion of the concept of cognitive and perceptual benchmarking as it relates to perceived quality, experiential expectations, and rating the perceived quality of wilderness resources.

Background

Since the 1960s, wilderness researchers have struggled with visitor perceptions of natural or pristine environments. While many visitors enter wilderness with an appreciation of the natural environment (Kaplan and Talbot 1983), it is not clear how these visitors actually assess the quality of the environment they are seeking. For example, wilderness managers struggle with the question: How is visitor experience affected when the idea of a natural environment is different from what was found during a previous wilderness visit? A benchmark experience occurs the first time a visitor arrives at a wilderness setting and identifies with the condition of that setting (Vaske et al. 1980; Watson and Cronn 1994).

Article author Joseph P. Flood

This experience suggests that during future visits visitors may have a predisposed perception of the conditions they expect prior to their arrival. These conditions may include, but are not limited to, the level of impact on trails and campsites as well as the number of people they may encounter. Studies have underscored the importance of visitor expectations in influencing their wilderness experience, specifically with regard to effects on the perception of resource conditions in the environment (Cole et al. 1997; Rossman and Ulehla 1977).

According to Stankey and Schreyer (1987), the primary reasons people want to participate in a recreational pursuit explain their motives. These motives must be translated into behavior through some choice process, which in turn is influenced by many situational factors. The object of choice might be a particular recreation environment, a behavior, or a desired psychological condition. The preference for a particular wilderness environment depends on the attributes in the environment being perceived as suitable for fulfilling the needs that motivated the behavior. For example, visitors might expect to see little evidence of human impacts in the remote portions of a wilderness.

Evaluations of on-site conditions in the form of impacts at campsites can vary depending on the individual. For instance, research conducted by Vaske et al. (1980) demonstrated that

people who first visited an environment several years before tended to evaluate environmental conditions more negatively than those whose first visit occurred close to the time of evaluating the environmental conditions. Anderson (1980) measured changes in the behavior of users in response to perceived conditions. She discovered that visitors whose expectations differed from the actual conditions either made a psychological adjustment to the different conditions or were displaced to a different area better able to meet their needs.

Visitor benchmarking is defined as any perception or previous experience that defines the campsite condition expected at a wilderness destination campsite (Vaske et al. 1980). Social psychologists have documented that standards people use to evaluate a setting are highly influenced by their expectations for that experience, which implies that different individuals will bring different expectations for the same activity or setting. When a situation differs from what a person deems appropriate, the experience is more likely to be evaluated negatively (Vaske et al. 1980; Watson and Cronn 1994).

Some research has shown that visitors with a more extensive history of visiting wilderness generally perceive more social and resource problems (Watson and Cronn 1994; Cole and Hall 1992). This information is encouraging because it suggests that these longer-term visitors are more sensitive to changing social and resource conditions and will better assist managers in understanding many of the problems visitors report. Wilderness areas with a high percentage of repeat visitors may find general visitor surveys more helpful in assessing resource conditions. However, some recent research suggests that future generations of wilderness visitors may have different expectations about what management actions are appropriate (Cole et al. 1997; Vaske et al. 1980; Watson and Cronn 1994). In some instances impacted campsites are being restored, while in other areas, campsite impacts have steady increased over time and little has been done to address the impacts. Stokes (1990) argued that visitors can provide important insights about the condition of wilderness and that they should be considered a key source of information and support for management practices.

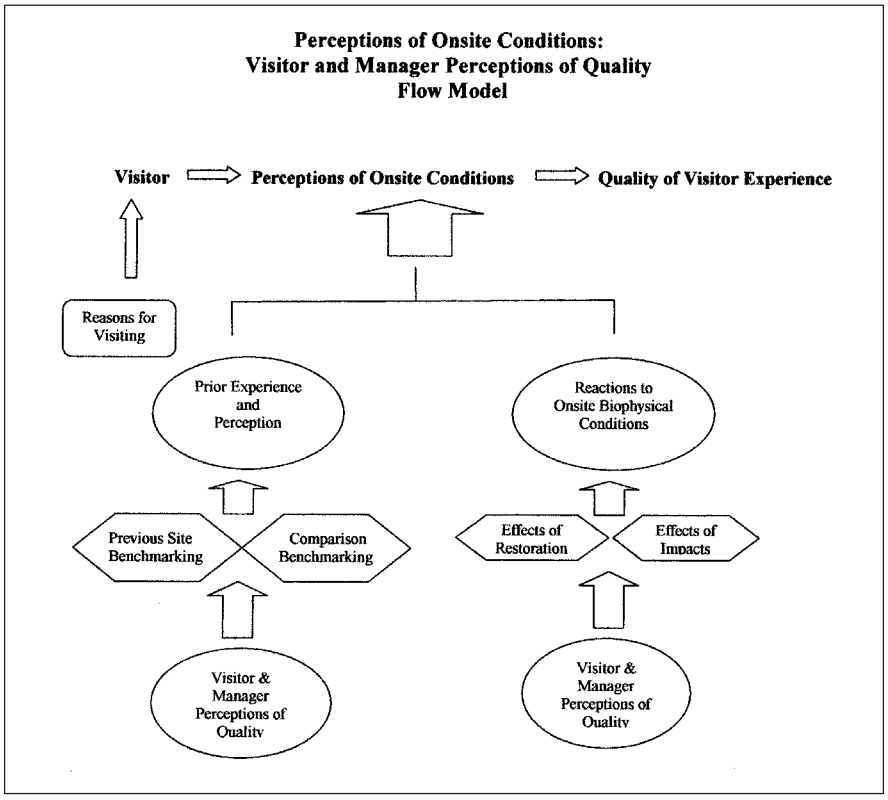

Figure 1—Perceptions of on-site conditions: Visitor and manager perceptions of quality flow model.

Revisiting Visitor Benchmarking in the Mission Mountains Wilderness

Wilderness is often examined in two dimensions: the psychological and the biophysical. Psychological dimensions involve perceptions, attitudes, values, and responses visitors have about wilderness conditions. The biophysical characteristics of wilderness encompass the vegetation, wildlife, and interrelated geographical settings. The following case study focuses on visitor observation of heavily impacted biophysical conditions at campsites and how measures taken to restore them influence the quality of visitor experience. Both visitor and manager perceptions of the wilderness resource are examined in order to understand the influence of management actions on quality of visitor experience.

Research was conducted in the Mission Mountains Wilderness (MMW), located in western Montana, where campsite restoration has been ongoing for the past 20 years. The research process included exit surveys, interviews, and focus groups with 350 MMW visitors (Flood 1999, 2001). In addition, a national survey was conducted with 33 selected U.S. Forest Service wilderness managers having

direct experience with campsite and trail restoration.

Some findings illustrated the many reasons visitors listed for visiting wilderness. Although reasons for visiting are similar to those found in previous research, the order of importance was different. Manning's (1986) research findings indicated that visitors ranked engaging in recreational activities as their number-one reason for visiting wilderness, closely followed by spending time with family and friends. Although MMW visitors also ranked engaging in recreational activities as their number-one choice, the remaining reasons for visiting the MMW were: experiencing solitude, spiritual renewal or nature appreciation, and spending time with family and friends (Flood 1999). Increased emphases on experiencing solitude, spiritual renewal, and nature appreciation were evident in all of the data sets. Underscoring the significance of what mattered most to MMW visitors was best stated by eight of the longtime MMW visitors who were in a focus group interview. These individuals indicated that their reasons for visiting were motivated by desire to experience a sense of peace, passion for wildness, tranquility, healing, and opportunities for solitude (Flood 2001).

Findings from exit surveys, manager questionnaires, interviews, and focus groups suggest that visitor perceptions of on-site conditions in wilderness are inextricably tied to the idea of benchmarking (Flood 1999, 2001). This research identified three types of visitor benchmarking, and these are diagrammed in Figure 1. The first type of benchmarking occurs when repeat visitors return to the same wilderness and evaluate on-site conditions based on observations made during prior visits. On subsequent trips, repeat visitors reflect upon the change in conditions at a specific campsite and compare their expectations to what they find in the current trip. The second type of benchmarking occurs prior to entering a wilderness, when first-time visitors evaluate the conditions of a campsite based on what they think it should look like. The third type of visitor benchmarking happens when wilderness visitors compare and evaluate campsite conditions found in one place with those observed at other wilderness areas they have visited.

Figure 2—Restoration signs for former camping areas in the Mission Mountains Wilderness. Photo by J. Flood.

A summary of findings from these studies (Flood 1999, 2001) suggests that visitors with the fewest number of years visiting the MMW were least affected by seeing other people and impacts, but most affected by observing litter. Although they lacked a benchmark for comparing the appropriateness of campsite impacts they observed or the restoration activities to address these impacts, they registered strong negative reactions to observing litter. In general, the written comments from MMW visitors and interviews show that many of the visitors' positive reactions to observing restoration activities resulted from: (1) seeing heavily impacted campsites being restored in the MMW and (2) their visits to other wilderness areas where little or nothing was being done to restore these areas. Results from the MMW survey, interviews, focus groups, and manager questionnaire suggest that visitors

Figure 3—Marking the boundary of a restoration site. Photo by J. Flood.

Figure 4—Reestablishing waterfront vegetation requires excluding visitors. Photo by J. Flood.

do indeed establish benchmarks based on campsite conditions.

Various factors influence visitor experiences once they arrive at their destination campsite (Flood 1999). These factors include visitor reactions to level of impact at campsites and the extent of management activities, or the lack thereof.

Figure 5—Campsite restoration activities are supported by visitors, especially when the area is obviously impacted. Photo by J. Flood.

On-site observations by visitors were varied and included such factors as acceptable campsite conditions, heavily impacted campsites that are devoid of native vegetation and seriously eroded, and/or observing evidence of management actions to restore them. Restoration activities may include information signs located at trailheads and at campsites, contact with wilderness rangers who provide on-site restoration education, evidence of stakes and twine, and visitor restrictions. Findings illustrate that visitor motivations to engage in specific wilderness experiences, and whether it is possible for them to attain a desired level of quality, are heavily dependent on prior perceptions of campsite conditions they expect to find at their wilderness destination campsites (Flood 2001).

Conclusions

This research shows that visitor experiences are influenced by what they find at their campsite. These findings are strongly supported by previous research (Cole et al., 1997; Martin et al. 1989). Previous research in the MMW (Flood 1999) suggests that when managers chose to restore heavily impacted campsites, the quality of visitor experiences was improved, visitor opinions of managers tended to be very positive, and visitors felt that the area was well cared for by managers. When managers did little or nothing to address heavily impacted campsites, the quality of visitor experience was greatly reduced, visitor opinions of managers were very negative, and visitors felt that the area was neglected (Flood 2001).

Whether managers choose to ignore or restore heavily impacted campsites, their decisions have a significant effect on the quality of visitor experience. Moreover, visitor perceptions and expectations of campsite conditions they will encounter in future visits are affected. The results provide a yardstick for assessing the relationship between conditions found at campsites and the influence these conditions actually have on the quality of visitor experience.

Findings from this study underscore that managers need to do a better job of providing wilderness education to visitors, which can be accomplished by continuing wilderness ranger presence in wilderness, providing up-to-date management information on wilderness websites, and distributing wilderness management newsletters and brochures to visitors. Making this information available will improve the public's understanding of wilderness management.

Wilderness education for visitors and training workshops for managers can go a long way toward addressing the best methods for providing information to the public and teaching the latest techniques for developing and implementing well-designed campsite management programs. The most effective way to guarantee that the wild remains in wilderness is to invest in wilderness education efforts for the public and for managers. Whether wilderness exists in the future, and what

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Identifying Wilderness in the Landscapes of Hong Kong Urban Periphery

BY LAWAL M. MARAFA

Introduction

Wilderness is a very subjective concept, and the growing demand for wilderness makes it a contemporary issue of importance as it is sought by conservationists, recreationists, adventure enthusiasts, and others. As wilderness continues to draw attention, forums such as the World Wilderness Congress provide a basis for diverse participation and create an international agenda for wilderness itself (Martin 2001). For society to continue to survive in a sustainable manner, we will need to revisit our perception and attitude toward wilderness and nature. There is a different perception of wilderness in various communities.

Although worldwide views on wilderness might differ, some views are in tandem with the need for its perpetuation. Historically, Easterners (e.g., Japanese and Chinese) view humans as part of nature. The Chinese believe in the art and science of *feng shui,* which purports that human destiny is enhanced if we live in harmony with nature. The common point between traditional and contemporary resource managers, however, is to try to protect the wilderness resource and the experience it provides. For example, the U.S. Wilderness Act of 1964 specifies that wilderness "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable, and has outstanding opportunities for solitude or a primitive and unconfined type of recreation." Furthermore, as Martin (2001) indicated, the issue of wilderness has attained international importance and has succeeded in integrating diverse cultures and races in a nature conservation dialogue.

While the concept of wilderness is not new, the past few decades have shown a dramatic increase in the use of wilderness as a unique and attractive recreation setting (Bennett et al. 2003). In many countries, wilderness is now being used for nonconsumptive purposes.

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With the growth of urbanization and development, the distance between the city and the backcountry continues to diminish. As a result, there is also a growing concern about the fate of wilderness, particularly where rapid development is happening, like in Hong Kong. In many urban environments, wilderness is not easily accessible. What is interesting is that in Hong Kong, wilderness is often juxtaposed at the periphery of the urban area. While wilderness in other countries tend to be far and demands long hours of travel, it is less than an hours' drive from Hong Kong, making it easily and readily accessible.

Although wilderness is often equated with protected areas, this is not entirely a new phenomenon. Ancient cultures have protected certain places from human-caused change since the earliest of human times (Miller 1999). According to Miller, designation of wilderness and other special places and sacred areas is not a new idea. Some of these wilderness areas, mosaics of different landforms, have been designated as national or country parks, putting them in the realm of protected area systems. In some places they are referred to as natural reserves. In this regard, the country park system in Hong Kong is unique. One of the places where preservation, conservation, and sustainable development ideals are promoted is in the protected areas. In Hong Kong, this process has been going on in the protected areas that have been designated as country parks (see Table 1).

Table 1—Objectives of Country Park System in Hong Kong.	
Country Park Objectives	**Functions**
Conservation	Protection of natural resources Landscapes Ecological resources Sites of geological interest Water catchments Sites of cultural and archaeological interests Park's tranquility
Recreation	Provide optimum range of outdoor recreation compatible with conservation objectives Minimize conflict of activities Provide for changes in demand Encourage other agencies to provide environmentally compatible activities Prohibit such activities that are not compatible with conservation objectives
Education	Educate the public of the need to learn and conserve its countryside Increase the public's enjoyment by giving them a deeper understanding of the countryside environment Provide information on the location of facilities Provide opportunities for field studies

Earlier, the International Union for Conservation of Nature and Natural Resources (IUCN) defined a national park and protected areas as a relatively large natural area, not materially altered by human occupation, where human use is for inspirational, educational, cultural, and recreational purposes (Lucas 1992). In many countries, these purposes are practiced, and the IUCN has classified categories of protected area systems specifically by their primary management objectives. Within the broad definition provided by the IUCN, protected areas are in fact managed for many different purposes (see Table 2).

While substantial changes in land use and development patterns have emerged since the passage of the 1976 Country Park Ordinance in Hong Kong, some of the wilderness areas in the country parks and patches of old native forests dating back to ancestral times remain intact. Historically, the vegetation in these forest groves was used for fuel, medicine, and even accorded such status as temples or meeting points.

Now, many societies do not use wilderness for consumptive purposes. Consequently, there are growing alternative uses and values that people attribute to wilderness including experiential, mental and moral restoration, and scientific activities (Hayashi 2002; Bennett et al. 2003). Some of the wilderness environments are treasured as historic resources and reflect evidence of human continuity and civilization. Where this is the case, wilderness then assumes the role of a human and natural environment. The antecedents of such environments reflect traces of past subsistence practices and rituals, making them unique and important cultural landscapes worthy of understanding, preservation, and conservation.

Most wilderness and cultural landscapes are juxtaposed with country parks that are protected as a result of the Country Park Ordinance in Hong Kong. These parks are often the most accessible wild environment that people can patronize and utilize without fear of breaking the law. To most people, these parks represent an environment to be feared, revered, conserved, or studied as they contain a large ecological resource and have been impacted by humans.

In Hong Kong, and some parts of south China, such landscapes assume a *feng shui* status because of previous human intervention (see Figure 1). These *feng shui* landscapes particularly are based on the spatial juxtaposition of villages, woodlands and forests, and, in some instances, graveyards. In historical terms, *feng shui* explicitly states that human beings should live in harmony with nature, contrasting the notion that humans are separate from nature alluded to by the Western view (Hayashi 2002).

In view of *feng shui*, this article explores the status of natural and wilderness landscapes located at the periphery of urban Hong Kong. It also highlights the potential use of these cultural and natural landscapes for experiential benefits to the community. This region is similar to other regions

Table 2—Categories of Protected Areas.
Strict Nature Reserve (i.e., nature reserve/wilderness area mainly for science or wilderness protection)
National Park (i.e., ecosystem conservation and recreation)
Natural Monument (i.e., conservation of specific natural features)
Habitat/Species Management Area (i.e., conservation through management intervention)
Protected Landscape/Seascape (i.e., landscape/seascape conservation and recreation)
Managed Resource Protected Area (i.e., sustainable use of natural ecosystems)
Source: IUCN 1994.

around the world where attempts have been made to promote the use of such wild, bucolic, rural, and peripheral landscapes as destinations for ecotourism and other nonconsumptive uses.

The Role of *Feng Shui* and Geomancy

In different societies, people's views and acts on nature influence the overall natural environment. As a result, the survival of humans is, in part, a result of the way we view and act upon nature and indeed wilderness.

If we want to promote contemporary environmental concerns such as sustainable development, environmental conservation, environmental education, ecotourism, and experiential learning, there is the need to further study and reconsider the relationship between humans and nature. Our ability to navigate through these global concerns will be shaped largely by the knowledge and wisdom we acquire and pass along to future generations through active promotion of these sites and appropriate education programs in order to understand, study and conserve wilderness and nature.

Although we have houses near forests with rich cultural history and diversity, the forests are still considered wild. Indeed one of the current policies in perpetuating these semi-wilderness areas is to foster clear awareness and concern about these cultural landscapes that have in part been modified and bequeathed to us by past generations.

Although countryside landscapes at the urban periphery were mostly used for agriculture, such as tea terraces and paddy fields, there is a diminishing role and significance of agriculture in the local economy (see Figure 2). The cultural and natural landscape (represented by *feng shui* groves) in south China has been modified as a result of the adherence to *feng shui* belief in spatial placement and geomancy. For centuries, geomancy have been applied to the Chinese practice of *feng shui* by which the location and orientation of houses and tombs was determined with close regard to the topography of the local landscape.

Figure 1—Evidence of human habitation and subsistence agriculture at the edge of dense *feng shui* vegetation. Photo by L. Marafa.

It is natural to refer to the *feng shui* locations of the countryside as wilderness because these locations are often surrounded by mountains and natural areas. The *feng shui* sites have clearly defined configurations. Indeed, Han (2001) had described the ideal *feng shui* location as a semi-enclosed space that is surrounded by mountain at the back, on the left, and on the right, and is open with flat land at the front. The open land in front of the houses is what was traditionally used for agricultural purposes.

Feng shui is often referred to as geomancy—more popularly known in the West as earth magic (Man-ho and O'Brien 1991). In Hong Kong, it is only within these *feng shui* locations that thriving and mature vegetation can be found around some of the native villages. These areas are mostly native vegetation communities that have survived hundreds of years of fire, cutting, vegetation destructive, and consumptive activities by past civilizations.

The Ecological Integrity of Cultural and Natural Landscapes

The transformation of the forest has been historically defined by the struggle over competing uses and contrasting discourse of place, through which its geographical and cultural features have been shaped. Despite this fact, the concept of wilderness is still looked up to in communities, rural or urban. As a vindication of the Eastern perception of wilderness and nature, Martin (2001, p. 9) observed that "we are a part of nature, not apart from nature."

In terms of ecology and landscape status, these *feng shui* wilderness environments can be considered a relict that represents a patch of continuing

Figure 2—Rural homes at the foot of a mountain range with abandoned agrarian fields in front. Photo by L. Marafa.

ecological processes that should be conserved, maintained, and studied. As these landscapes are the closest representatives of wilderness in Hong Kong, there is the need for a commitment to protect in perpetuity a portion of the landscape and its related human heritage. Such a commitment could educate and encourage people to realize the importance of the continuous existence of wilderness environments in an urban periphery.

In most countries, wilderness is under some sort of management framework. In order to perpetuate wilderness, there is the need to forge an integrated and collaborative system across the wilderness management agencies. The Hong Kong government's policy is to create outline zoning plans (OZP) that identify the significance of such landscapes. These OZPs are in addition to the country park structure where zoning tends to divide the parks into recreational, conservation, and wilderness zones to accommodate myriad demand as indicated in the country park objectives (see Table 1).

Figure 3—Interpreting wilderness on a planned trail. Photo by L. Marafa.

However, manipulating wilderness conditions is philosophically and practically difficult. Ancient cultures have protected certain places from human-caused change since the earliest human times; those places that are protected are often sacred and revered. Because these areas have limited impact by humans, they represent the remnants of ecological biodiversity and processes and include rare or endangered species (Chau and Marafa 1999).

As wilderness is becoming more and more important and some of it is being placed under protected area systems, about 9% of the Earth's terrestrial surface is now under protection (IUCN 1994), according to one of the numerous objectives stipulated by the IUCN guidelines (see Table 2). In a society where wilderness is well managed, it can make contributions to the economic and social development of a community. Additionally, wilderness provides good subjects for environmental and ethical education while simultaneously promoting the virtues of conservation (see Figure 3). Consequently, if societies want to work toward sustainable livelihoods, we will need to invest in wildlands and wilderness. We will need to manage them actively to provide the full range of ecosystem goods and services. Also, there is the need to consider the theme of wilderness further, particularly as it borders on the interface of the relationship between people and nature.

Continued on page 33

Announcements and Wilderness Calendar

COMPILED BY STEVE HOLLENHORST

Europe: Treaty Conserves Largest Remaining Wilderness

Environment ministers from five east European countries signed a new environmental agreement in Kiev, Ukraine, that aims to protect the continent's largest reserve of natural forests and large carnivores. Hungary, Romania, Serbia and Montenegro, Slovakia, and Ukraine signed the Framework Convention on the Protection and Sustainable Development of the Carpathians at a United Nations conference of 55 countries. The meeting's purpose was to strengthen cooperation in protecting and improving the environment in Europe and central Asia. Representatives from the Czech Republic and Poland are expected to sign the agreement.

The Carpathian Mountains, arching across eight countries and covering about 78,000 square miles (202,020 square kilomters), are Europe's last region outside Russia to boast large tracts of untouched forest, as well as large populations of brown bears, wolves, lynx, European bison, and the threatened imperial eagle. The Carpathians are home to one-third of all European plant species, including 481 species found nowhere else in the world. The area includes nearly half of Europe's wolves outside of Russia, with more than 4,000 animals living in the Carpathian Mountains. About 16 million to 18 million people of various ethnic groups and nationalities live in the region. Unemployment and poverty have worsened in the region, posing a significant threat to the Carpathians. "A great emphasis of the convention is on providing benefits to local people, while developing sustainable tourism in and around protected areas and working together on managing these areas," said Achim Steiner, director general of the Switzerland-based World Conservation Union. "Only by securing livelihoods can the long-term sustainable development of the region be assured." Source: Greenwire—http://www.eenews.net/Greenwire.htm.

Third International Protected Area Management Seminar

The 2003 International Seminar on the Management of Parks and protected areas was held from August 7 to 23, 2003, in the Rocky Mountains of the western United States. Designed for midcareer planners and managers of nationally significant protected areas worldwide, this integrated state-of-the-art course examined strategies to conserve the world's most special places. The program is sponsored by the Consortium for International Protected Area Management (CIPAM), which includes the USDA Forest Service International Programs, the University of Montana, the University of Idaho, and Colorado State University. Led by Dr. Bill McLaughlin from the University of Idaho and Dr. Wayne Freimund at the University of Montana, the course evaluated policies and institutional arrangements that sustain both people and natural resources. The seminar stimulated deliberations and interactive problem solving for issues related to protected area and natural resource management. Program activities took advantage of the rich experiences and multiple cultural perspectives of the participants, as well as the unique heritage and resources available in the northern Rocky Mountain region. Themes included Integrated Planning for Protected Areas; Community Involvement; Tourism, Concessions, and Visitor Management: and Communication, Marketing, and Environmental Education. For information on next year's seminar, visit the USDA Forest Service International Programs website at: http://www.fs.fed.us/global/. For more information on CIPAM, visit http://working.wilderness.net/protectedareas/

Submit announcements and short news articles to STEVE HOLLENHORST, *IJW* Wilderness Digest editor. E-mail: stevenh@uidaho.edu.

Fortieth Anniversary of the 1964 Wilderness Act

The year 2004 marks the 40th anniversary of passage of the 1964 Wilderness Act in the United States and is a presidential election year. These events present a unique opportunity in history to launch efforts to increase public awareness, understanding, and support of our nation's wilderness heritage. To capitalize on this opportunity, representatives from the wilderness stewardship agencies, nongovernmental organizations, user groups, and funding organizations have come together to advance nationwide wilderness outreach efforts.

Representatives from a number of organizations and agencies are currently working together through monthly conference calls to advance these and other wilderness awareness efforts. The primary focus of this group is to identify and capture the talent and resources needed to complete 40th anniversary projects by leveraging existing resources and ensuring that efforts complement rather than compete with each other. It is intended that the group expand to include representatives from the hunting and fishing and river and horse outfitting communities, among others. In addition to the multi-organizational coordinating team, a team made up of three to five representatives from each agency and the NGO community will be responsible for planning and hosting the National Wilderness Summit and EXPO. To the degree time and resources allow, this team will also work on local and regional activities to increase public awareness of wilderness.

A Wilderness Education and Stewardship Summit has been scheduled for Denver, Colorado, from October 1 to 7, 2004. This event includes an EXPO as a public outreach component October 1 to 3 to raise public awareness and understanding of wilderness and a summit or conference component October 4 to 7 to celebrate the public values and benefits from wilderness; discuss necessary actions to steward Wilderness resources; and to expand partnerships to enjoy and support Wilderness programs. For more information, see www.wilderness.net/40th/.

New Technology Promises to Tame Our Sense of Self-Reliance

An editorial in the *Missoulian* newspaper lamented the introduction of a small new device to carry with you into the wildest corners of Montana or the world. Called a personal locator beacon, it's much like the locator beacons carried by most aircraft. With the flick of its switch, the pocket-sized beacon sends out a digital distress signal encoded with information about you and pinpoints your location. The signal will be picked up by a National Oceanic and Atmospheric Administration (NOAA) satellite and relayed to NOAA's Mission Control Center in Suitland, Maryland. Someone there will route the signal to the Air Force Rescue Coordination Center at Langley Air Force Base in Virginia. The air force will then alert local police or a search and rescue team in the area from which the signal was sent and tell your rescuers exactly where to find you. It's up to you to decide what level of emergency calls for flipping the switch and summoning help. "We want recreationists who venture into America's remote wilderness to be safe and prepared if an emergency arises," declares a NOAA administrator on the agency's website. "The best way to do that is to carry an S=9D personal locator beacon." In lament, the *Missoulian* editorial states that today's "rugged individualists" may "find their way to the last vestiges of frontier, but [they] need not worry about finding [their] way out. He or she can roam the wilderness but won't know wildness—not while connected by electronic umbilical to teams of rescuers standing by." For more information on the personal locator beacon, see http://www.noaanews.noaa.gov/stories/s1168.htm.

Walk For Wilderness Planned

To celebrate the 40th anniversary of The Wilderness Act in the United States (1964–2004), cities, towns, and communities across the country are encouraged to sponsor a "Walk for Wilderness" event to bring a broad cross-section of local residents together to learn more about the benefits of an enduring wilderness resource. It can also help promote the National Wilderness Summit and EXPO to be held in Denver, Colorado, October 1 to 7, 2004. Walks are encouraged on or near the 40th anniversary date of the signing of the Wilderness Act (September 3). The walks do not take place in congressionally designated wilderness, but in the communities that surround wilderness. For more information on hosting a Walk for Wilderness event in your community, contact Ralph Swain, Regional Wilderness Program Manager, 740 Simms Street, Golden, CO 81401; (303) 275-5058; e-mail: rswain@fs.fed.us.

A Professional Society for Wilderness Stewardship?

In the April 2003 issue of the *IJW,* Wayne Freimund and Connie Myers wrote an article proposing the creation of a professional society for wilderness stewardship. Following the article was a commentary on the proposal from *IJW* editor in chief John C. Hendee. Freimund and Myers proposed "the establishment of a membership organization for wilderness stewardship to provide a valuable forum for linking wilderness managers, scientists, and others to address common stewardship challenges and bring focus to the

profession of wilderness stewardship. Within such a venue, we could move toward an integrated and collaborative system of wilderness stewardship. This organization would serve as a professional home for people who wish to see themselves as wilderness professionals." The article is available online at http://www.wilderness.net/feature.cfm. To join a discussion on the topic, visit the Wilderness.Net discussion page at http://www.wilderness.net/forum/.

Canada Creates 41st National Park in Nunavut

The government of Canada announced the creation of Ukkusiksalik National Park in Nunavut. Canada's 41st national park protects 20,500 sq km (7,915 sq. mi.) of wilderness, including Wager Bay—a vast arm of the sea that extends 100 kilometers (38 miles) inland from the northwest corner of Hudson Bay. "The creation of Ukkusiksalik National Park is the result of many years of work on the part of Inuit communities and Parks Canada, and we applaud their commitment and vision in protecting this magnificent wilderness area for future generations," said Stephen Hazell, national executive director for Canadian Parks and Wilderness Society (CPAWS). Ukkusiksalik National Park protects important habitat for caribou, musk ox, polar bears, grizzly bears, golden eagles, and many other arctic wildlife species. The new park includes a major marine component—home to bearded and ringed seals and beluga whales. It encompasses a landscape of rolling tundra, cliffs, and unique phenomena such as a reversing waterfall, created by the impressive eight-meter (26 foot) tides in the area. It is the first national park to encompass almost an entire watershed. Wager Bay is important to local Inuit communities as a hunting ground and because of its cultural significance. More than 500 archaeological sites are found within the park. The signing ceremony was held in Iqaluit and attended by Prime Minister Jean Chrétien, Nunavut official Nancy Karetak-Lindell, and Nunavut leader Paul Okalik, as well as Tongola Sandy, president of the Kivalliq Inuit Association. Source: The CPAWS—http://www.cpaws.org/news/ukkusiksalik-2003-0823.html.

Wilderness Ranger Academy

A training program to provide a "tool box" of professional wilderness management skills to field level wilderness rangers, seasonal rangers, wilderness managers, and volunteers will be held in Aspen, Colorado, from May 18 to 21, 2004. The program theme is the 40th Anniversary of The Wilderness and is hosted by the Forest Service, Bureau of Land Management (BLM), National Park Service (NPS), and Fish and Wildlife Service (FWS). The program includes a review of wilderness history, philosophy, values, and The Wilderness Act; understanding the wilderness ranger's roles and responsibilities; a focus on wilderness as an enduring resource; information about technology; agency and academic research results; and discussion of the recent issues facing wilderness managers. The registration fee is $450/person. A limited number of openings for community residents who wish to attend the workshop, but will not require lodging or meals, will be available for $25/person/day. Forest Service employees must register via TIPS at http://fsweb.r2.fs.fed.us/hr/index.html and submit a job code and override number to Barb Sumpter at bsumpter@fs.fed.us. For registration by other government employees (BLM, NPS and FWS) and nongovernment attendees, contact Ralph Swain at rswain@fs.fed.us, or telephone: (303) 275-5058.

Correction on Newman et al. article in August 2003 *IJW*

In the previous issue of IJW (Volume 9 Number 2), the paper by Newman, Manning, Bacon, Graefe, and Kyle, "An Evaluation of Appalachian Trail Hikers' Knowledge of Minimum Impact Skills and Practices" contained a typeset error in Table 1 on page 36. The incorrect answers for the "minimum impact quiz" were highlighted in bold. Below is the corrected table.

Table 1. Percentage of Visitors Who Answered Questions Correctly and Quiz Score Means.

Minimum impact quiz questions and answers (Correct answers in **bold**)			Day hikers	Overnight hikers	Section hikers	Thru-hikers	All hikers
True	**False**	When selecting a campsite in obviously impacted areas you should spread activities to places that have not been disturbed.	91	90	87	90	90
True	**False**	The same rules and regulations apply to the entire Appalachian Trail.	67	71	75	87	73
True	**False**	When hiking and encountering a horse party you should wait until the horses have come to a stop and then move quickly past them.	69	76	73	74	73
True	False	I cannot ride my mountain bike on the Appalachian Trail, because it is not allowed.	86	87	95	97	90
True	False	While backpacking, you should never camp next to a stream.	64	73	64	60	66
True	**False**	If I wanted to ride my all-terrain vehicle on the AT, I could do so as long as I stay on the trail.	100	99	100	99	99
True	False	When hiking in remote, lightly used locations it is best to camp on a site with no evidence of previous use to minimize your impact on the wilderness environment.	37	47	49	73	48
True	**False**	Building temporary fire rings by moving rocks and logs at your campsite is an accepted low-impact behavior.	73	87	90	92	83
True	False	When traveling on existing trails it is best to walk single file and stay on the main path to minimize impact.	99	99	99	99	99
True	False	Hikers should not collect plants and rocks along the Appalachian Trail.	97	98	99	97	97
		Mean Quiz Scores	**78**	**83**	**83**	**86**	**82**

Corrected Table from Newman et al. August 2003 *IJW*.

Wilderness Task Force Launched at World Parks Congress

The Wilderness Task Force, established by the International Union for Conservation of Nature and Natural Resources (IUCN) World Commission on Protected Areas (WCPA), recently made its debut at the Fifth World Parks Congress in Durban, South Africa. Every 10 years since 1962, the world's protected area leaders gather at the congress to assess achievements, problems and issues, and chart goals for the future. This year the Congress focused on demonstrating how protected areas are relevant to the broader economic, social and environmental agenda for humankind in the 21st century. The end result was the "Durban Accord," a call to action for protected area conservation constituents that encourages a series of new dialogues and agreements to recognize how protected areas benefit society. Previous congresses have had a tremendous impact in assisting national governments to create new protected areas and direct more resources toward conservation of biodiversity.

Wilderness was first officially recognized as an IUCN protected area category in 1992, when the WCPA took the important step of establishing Category 1(b). Nonetheless, there has been a need for more formal discussion of wilderness issues at WCPA meetings in IUCN publications. In response, WILD Foundation President Vance Martin proposed that a Wilderness Task Force (WTF) be established as an IUCN focal point for the wilderness concept and to provide more formal representation in WCPA activities. In consultation with wilderness leaders from around the world, The WILD Foundation prepared terms of reference for the WTF, which were approved by the WCPA in March 2003.

The WTF had two formal meetings at the World Parks Congress. At the first meeting, attended by over 80 delegates, Mr. Martin presented the terms of reference and led a discussion of the next steps. Ian Player provided inspiring words about the importance of elevating attention to wilderness in international conservation circles. The second meeting, attended by approximately 60 delegates, had a two-fold purpose: (1) to present in more detail "The Wild Planet Project: Making the Case for Wilderness and People," an ini-

Alan Ewert Leaves IJW Editorial Board

Dr. Alan Ewert climbing near the top of Mt. Ellen, Utah. Photo by Amy Shellman.

Dr. Alan Ewert, one of the founding executive editors of *IJW,* has resigned from that position in order to devote more time to his new duties at Indiana University. Dr Ewert, a professor and endowed chair in the Department of Recreation and Park Administration recently assumed additional duties as associate dean in the School of Health, Physical Education and Recreation. Alan's keen insight and sound advice will be sorely missed on the *IJW* editorial board, as well as his expertise and experience in adventure recreation in wilderness.

Dr. Ewert has exceptional and varied experience in wilderness-related positions. After three years as a faculty member at Ohio State University, he became the director for professional development for the Pacific Crest Outward Bound School. From there he joined the U.S. Forest Service as project leader of the Wildland and Urban Interface Research Unit based in Riverside, California, and within a few years was promoted to branch chief of Recreation, Wilderness, and Urban Forestry Research for the USDA Forest Service in Washington, D.C. In 1996, he became professor and head of the Resource Recreation and Tourism Department at the University of Northern British Columbia in Prince George, British Columbia. In 2000, he moved to Indiana University and held the Patricia and Joel Meier Endowed Chair in Outdoor Leadership.

Dr. Ewert has authored numerous articles in scientific journals and books on a variety of topics including natural resource management, outdoor adventure, and resource-based tourism. We look forward to his continued involvement with wilderness and the *IJW.*

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—John Hendee
***IJW* Editor in Chief**

Perry Brown Named to *IJW* Editorial Board

Dr. Perry Brown, dean of the College of Forestry and Conservation, director of the Montana Forest and Conservation Experiment Station, and professor of Forest Resources at the University of Montana in Missoula, has accepted an appointment to the *IJW* editorial board. He will replace Alan Ewert, a founding *IJW* board member who is resigning due to increased administrative responsibilities at the University of Indiana. "Perry is a fine addition to the board," said John Hendee, *IJW* editor in chief. "He will bring experience, insight, and leadership to the board to help us in our mission of providing information to wilderness planners and managers, scientists, educators, advocates, and users."

Perry Brown earned his Ph.D. from Utah State University in 1971. Early in his career Perry was a noted for his teaching, research, and outreach in the areas of natural resource policy and planning and in recreation behavior and planning at Colorado State University and then at Oregon state University, before becoming associate dean of the Oregon State University School of Forestry. In 1994, Dr. Brown was named dean of the University of Montana's Forestry School, now the College of Forestry and Conservation. The name change reflects the broader direction that has evolved under his leadership. Dean Brown has long been a supporter of *IJW* (U of M is one of our sponsors) and under his leadership at the University of Montana wilderness has prospered in their education programs. For example, their Wilderness Center has flourished, Wilderness.Net has evolved into the prime wilderness Internet source, international wilderness study programs have been developed, and a major wilderness research conference was cohosted in 1999. In 2001, Perry was selected to chair a major Task Force Review of federal agency wilderness stewardship, culminating in what is now known as "The Brown Report" (see *IJW,* April 2002). Earlier this year Perry presented the *IJW*-Corrigall Stewardship Award to recipient Bill Worf on behalf of *IJW.*

As an *IJW* board member, Dr. Brown will help us focus on strategic rather than editorial matters, helping *IJW* strengthen such things as our sponsorship base, wilderness awards programs, subscriptions, international distribution, and service to a broader wilderness clientele. Welcome to the *IJW* team, Perry.

—John Hendee, *IJW* Editor in Chief

tiative The WILD Foundation is preparing for the 8th World Wilderness Congress (WWC) in 2005 in Anchorage, Alaska; and (2) to solicit input on additional functions the WTF could provide.

Cyril Kormos, vice president for policy at the WILD Foundation presented "The Wild Planet Project." The objective is to assemble working groups on biodiversity, ecosystem functions, social issues, law and policy, and economics that will each make a case for wilderness protection, and present that case at the 8th WWC. Mr. Kormos emphasized that this was intended as a participatory effort. WILD will take a leadership role in coordinating this effort and will chair the social and law and policy groups, but he invited others to take on the remaining working groups. He emphasized that this work was intended as an applied initiative to assemble the state-of-the-art knowledge on the many benefits of wilderness, but also to use that information to generate new conservation outcomes.

Discussions included the possible functions the WTF could assist with via the website and via the upcoming 8th WWC. A central component of the discussion was the need for better communication on wilderness issues. Participants suggested that the WTF develop a communications strategy to disseminate wilderness information more broadly and more effectively. Participants noted that NGOs around the world would need as many tools as possible to make the wilderness concept tangible in their countries (e.g., The Wild Planet Project), particularly in non-English speaking countries unfamiliar with the concept and in countries where little wilderness is left. Emphasis was placed on the need for the WTF and WWC to continue to celebrate wilderness with energy and enthusiasm and without apology. Finally, a request was made to develop a forum at the WWC to bring together high level wilderness managers from around the world to exchange lessons learned and experiences—government representatives from India and the United States pledged to work together to organize this forum.

For more information, contact the Wilderness Task Force—http://www.wild.org/international/iucn.html; Wild Planet Project—http://www.wild.org/international/wpp.html; World Commission on Protected Areas—http://www.iucn.org/themes/wcpa/; and World Parks Congress—http://www.iucn.org/themes/wcpa/wpc2003/index.htm. *Source:* Steve Hollenhorst, Cyril Kormos, and Vance Martin.

Book Reviews

Confronting Consumption

edited by Thomas Princen, Michael Maniates, and Ken Conca. 2002. MIT Press. 390 pp., $26.95 (paper).

Wilderness has no lack of enemies. By necessity, defenders of wilderness tend to deal with frontline issues such as recalcitrant legislators intent on antiwilderness legislation, the environmental and social impacts of overuse, special interest groups intent on inappropriate use, or resource extraction activities. As a result, the broader social forces that initiate these and other threats—obscured as they are by their own pervasiveness—can be forgotten in the heat of battle.

Confronting Consumption brings one of these obscured forces into much sharper focus. The central issue addressed is the Western nations' obsession with consumption and its impact on the environment and on the consumers themselves. By consuming "things," we also consume less tangible goods such as wilderness or ecological integrity.

The authors suggest that the environmental movement has tiptoed around the issue of consumption, perhaps in part because—as primarily middle-class-based organizations—they too felt it necessary to rely on consumption (e.g., selling memberships in their organization in order to lobby governments) to exist. Indeed, one of the central themes of the book is that the calls for spiraling consumption are deeply entrenched within contemporary society. While traditional economic theory ascribes responsibility for all consumption-related problems to individuals (e.g., calls for voluntary simplicity or recycling), this book highlights "the need to see consumption not just as an individual's choice among goods but as a stream of choices and decisions winding its way through the various stages of extraction, manufacture, and final use, embedded at every step in social relations of power and authority" (p. 12).

Confronting Consumption is divided into three sections. The first two sections review and analyze the status quo—the existing economic and political structures that champion consumption—and the primary characteristics of the consumer society. These sections also provide a detailed critique of our society's focus on production and consumption, discussing, for example, the concept of distancing (i.e., the increasing social and geographical distance between resource extraction and consumption, and the inability of consumers to see the ecological impacts of their consumption), commodification (i.e., our increasing ability to bring new goods and services into consumption), globalization, and the growing North-South divide. The final section provides five chapters that provide specific examples of how the juggernaut of consumption might be challenged. The voluntary simplicity movement, forest certification, Adbusters, and the home power movement are critically examined—warts and all. A social response incorporating both cautious consumption and better producing is suggested as a possible cure for our addiction to consumption.

Confronting Consumption is an excellent reminder of our society's fixation on consumption, and how the ecological and social impacts of this fixation continue to reverberate around the globe. It clearly links wilderness and consumption and identifies the growing schism between consumers and the wild. For wilderness is not only consumed by extractive industries, it is also consumed by recreation and indirect use of wilderness.

Reviewed by JOHN SHULTIS

Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement

by Paul Sutter. 2002. University of Washington Press. 360 pp., $35.00 (cloth).

The theme of consumption addressed in the previous book review (*Confronting Consumption*) is echoed in *Driven Wild*, which traces the cultural and intellectual history of the wilderness movement. Paul Sutter focuses on the years 1910 to 1930—a period often ignored in previous historical analyses—and addresses his topic by identifying the roles and rationales of four of the eight founding members of The Wilderness Society: Aldo Leopold, Robert Sterling Yard, Benton MacKaye, and Bob Marshall.

Sutter argues that these and other wilderness leaders were not primarily responding to the dangers posed by the traditional extractive industries (e.g., forestry and mining) when they created The Wilderness Society. Rather, most of their arguments were organized around

Continued on page 17