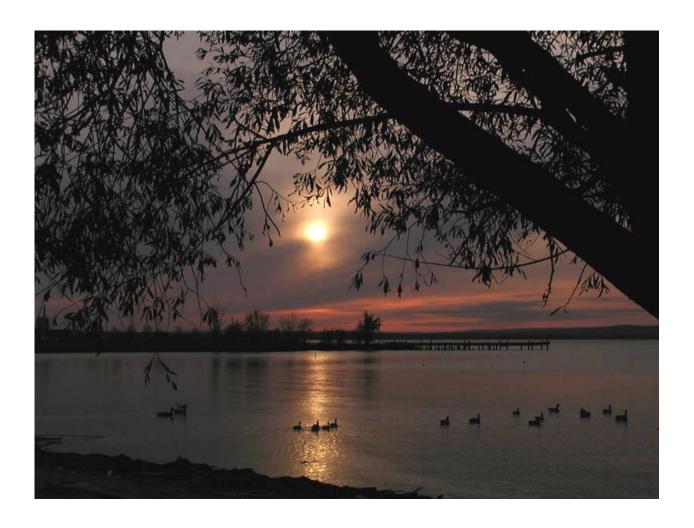
CONNECTING PLACE RESEARCH TO DECISION-MAKING WORKSHOP



Wednesday, September 24 – Saturday, September 27, 2008 Northern Great Lakes Visitor Center, Ashland, WI

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CONNECTING PLACE RESEARCH TO DECISION-MAKING WORKSHOP

Statement of Purpose

The purpose of this workshop is to sustain a dialogue amongst participants to understand differences, build connections, and work to connect place research with the practice of planning and decision-making. The goal is to shape chapters that refer to one another and collectively make a coherent and nuanced text.

Process

Each author will present their major ideas (15 minutes), followed by a discussant (10 minutes), and followed by discussion with the rest of participants (25 minutes).

Presenters

Presenters should focus on the major contribution of proposed chapter regarding connections between place research and the practice of planning and decision-making.

Discussants

The discussant should identify the major contribution of each presentation, and provide comments to appreciate and critique the contribution. The comments should highlight conceptual issues rather than the technical details of the research. Some questions that discussants could ask of each presentation include:

In what ways does the presentation connect place and place research to the practice of land management? To what extent could these connections be strengthened?

What is the contribution in the context of the literature on place? How could this contribution be further developed?

What is the contribution in the context of the other presentations? What distinguishes the ideas or builds connections to other presentations? How could these distinctions or connections be further developed?

CRITERIA FOR INCLUSION FROM OREGON STATE PRESS

Mary Elizabeth Braun, Acquisitions Editor, Oregon State University Press mary.braun@oregonstate.edu
Phone: 541-737-3873 Fax: 541-737-3179

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To the reader:

Please be frank in evaluating this manuscript. Your report has been solicited for the guidance of the OSU Press and its faculty advisory Editorial Board; the questions below concern matters of importance to us as we decide whether or not to publish this project.

- 1) Please briefly summarize in your own words the content or argument of the manuscript. Is the work original? Is the scholarship sound, i.e., is the research thorough, the information accurate, the thesis sustained, the notes and references sufficient?
- We shall appreciate your insights about whether or not this will be a cohesive volume. Therefore, please assess each essay's contribution to the volume overall, and how well the essays work together. Please feel free to offer specific suggestions for improving individual contributions. Should any of the essays be eliminated from the volume altogether?
- What are the significant books already published on this subject? How does this manuscript compare with them? Is it unique?
- 4) To what audience will this appeal? To what extent will it be useful to interested readers outside of its field of scholarship? Does it have appeal for the general reader? Does it have potential for course adoption or book club sales?
- 5) Is the manuscript written in a clear, readable style? Is it organized effectively?
- 6) Could the manuscript be improved? If so, how? Please be as specific as possible in your suggestions for revision.

	My recommendation is that:
	I strongly recommend publication.
	I recommend publication. Although I have offered suggestions for revision, adoption of these should be left to the discretion of the author and the Press.
	I recommend publication if the suggested revisions are made satisfactorily.
	I do not recommend publication.
	R: If the Press wishes to quote from this report to publicize the book, shall we do so or without your name?
	Signature: Date:

AGENDA – Wednesday, September 24, 2008

8:00 a.m. - Breakfast

8:30 a.m. - Welcome Statement from Bill Stewart

9:00 a.m. – Introductions

10:00 a.m. - Collaborative learning in the representation of lived experience

Author: James Barkley

Discussant: Damon Hall

10:55 a.m. – Relational marketing: Linking trust and place meanings to protect cultural landscapes

Authors: Alan Watson / Roian Matt / Tim Waters / Kari Gunderson / Steve

Carver / Brett Davis

Discussant: Herb Schroeder

11:50 p.m. - Lunch

1:00 p.m. – Measuring human/place bonds to assist public land management

Authors - Neal Christensen / Jim Burchfield

Discussant: Linda Kruger

1:55 p.m. – Place Representation as a Tool for Fixing the Yellowstone River

Authors: Damon Hall / Susan Gilbertz / Cristi Hort

Discussant: Dan Williams

2:50 p.m. – Break

3:00 p.m. – Which Rural Amenity? Putting conservation subdivision design into context

in rural Oregon

Author: Patrick Hurley

Discussant: Michaela Stickney

3:55 p.m. – Place-based planning, public participation and social assessment in

natural resource planning and decision-making

Authors: Linda E. Kruger / Dale Blahna

Discussant: Kari Gunderson

4:50 p.m. – Adjournment

6:00 p.m. – Dinner at location TBA

AGENDA – Thursday, September 25, 2008

8:00 a.m. - Breakfast

8:30 a.m. – Eliciting and Mapping Forest Values: A Case Study of the Canadian Boreal

Forests of North-western Ontario

Authors: Norman McIntrye / Perrine Lesueur

Discussant: Bill Stewart

9:25 a.m. – Our Public Lands, My Red Desert: Personal Experience and Public Place-

Creation

Author – Tyra Olstad

Discussant: James Barkley

10:20 a.m. – Break

10:30 a.m. – Place in action: A look at sense of place among Forest Service volunteers

Authors: Ben Amsden / Richard C. Stedman / Linda Kruger

Discussant: Neal Christensen

11:25 a.m. – Sharing stories of place to foster social learning

Authors: William Stewart / Troy Glover / James Barkley

Discussant: Patrick Hurley

12:20 p.m. - Lunch

1:20 p.m. – Rhetorical Dimensions of Place in the Context of Agency Organizational

Behaviors

Author: Patricia A. Stokowski

Discussant: Paul Van Auken

2:15 p.m. – Break

2:25 p.m. – Connecting Place to Fire Planning through Participatory Mapping: A Case

Study on the Kootenai National Forest in Montana

Authors: Michael Cacciapaglia / Laurie Yung

Discussant: Gene Theodori

3:20 p.m. – The Rural Property Interest Mosaic: Collective Action in American and

Norwegian Rural Amenity Areas

Authors - Paul Van Auken / Shawn Golding

Discussant: Pat Stokowski

4:15 p.m. - Adjournment

6:00 p.m. - BBQ Dinner

AGENDA - Friday, September 26, 2008

8:00 a.m. - Breakfast

8:30 a.m. – Community, Place, and Decision-Making

Authors: Gene Theodori / Gerald T. Kyle

Discussant: Rich Stedman

9:25 a.m.– Lake Champlain Basin Summary

Author: Michaela Stickney

Discussant: Michael Cacciapaglia

10:20 a.m. – Break

10:30 a.m. – Sensing Value in Place: Experiential Practice and the Decision-Making

Process

Author: Herbert W. Schroeder

Discussant: Tyra Olstad

11:25 a.m. – Place, Scale, and Decision-making: Institutional Challenges for Managing

Multi-Scaled Natural Resource Systems

Author – Dan Williams

Discussant: Norm McIntyre

12:20 p.m. – Lunch

1:20 p.m. - Group Discussion re: organizing our work into a book

5:00 p.m. - Adjournment

6:00 p.m. - Dinner at location TBA

AGENDA – Saturday, September 27, 2008

Kayaking to the Sea Caves

* Put in at approximately 9:00 a.m.

* Take out at approximately 4:00 p.m.

* Lunch provided

ABSTRACTS

(listed in order of presentation, then alphabetically by those not present)

MAKING SENSE OF PLACE ACCORDING TO LIVED EXPERIENCE

James R Barkley, University of Illinois at Urbana-Champaign

Abstract

The ways that multiple interests come to be represented in park and natural resource management need improvement. While a great deal of warranted attention is given to technical issues in land-use decision-making, there are other forms of knowledge that are useful in their own right and context. In this chapter it is suggested that various experiences, memories, emotions, and political interests of stakeholders may be constructively approached through stories of lived experience that, when shared, can create new places and new possibilities for managers-as-stakeholders.

The traditional scientific perspective that strives for objectivity and adherence to prescript hypotheses continues to be necessary and useful in land-use decision-making. With regard to concepts of place that have been applied in this manner, studies of place attachment have been particularly useful in shedding light on featured attractions of important outdoor places (e.g., Hammit, Backlund & Bixler, 2004; Kyle, Absher, & Graefe, 2003; Warzecha & Lime, 2001). Myriad useful applications of place attachment are described throughout this volume. The theory suggested here is not meant to detract from the usefulness of a traditional scientific perspective. Instead, this chapter focuses on a particular scenario by which another perspective – the lived experience perspective – can aid land-use decision-making.

In seeking to democratize land management - as is implicit of America's public land management agencies - there is a need to understand public sentiment and public involvement. In his book *Coming to Public Judgment*, Daniel Yankelovich (1991) describes a scenario in which the general public's "responsibilities for governance are being usurped by 'creeping expertism'" (Yankelovich, 1991, pp. xiii). Accordingly, the ability for those in positions of power (e.g., park and wild land managers) to relate to a larger public who care deeply about the consequences of the decision-making process (i.e., stakeholders) is continually eroding. Put succinctly:

"It is sometimes difficult to believe that the public and policy-making experts in the U.S. share the same language and culture" (Yankelovich, 1991, p. 3).

The result of this trend is an increasingly widening chasm between public representation and expert-based decision-making. If the aim is to flatten the decision-making structure, the ability for a public to represent itself is crucial.

Many public land-use decision-making platforms include a peculiar subset of individuals who become involved in planning dialogue as representatives of larger stakeholder groups that are in attendance at, and sometimes organize, public forums. These individuals are charged with representing the interests and political ideology of a larger stakeholder group. These individual stakeholders, who are primarily vocal in local planning processes, have the ability to expand dialogue by sharing the experiential knowledge that defines their important places and how they come to be represented.

It is a difficult position for an individual to represent the interests of an organization while offering a very personal story of their lived experience. As a result stakeholders readily defer to standardized ideological representations in a dialogic

space that traditionally assumes the supremacy of empirical or scientific knowledge. This scenario hampers land-use planning and policymaking when stakeholder dialogue is unable to move beyond historically entrenched and at times embattled rhetoric. By sharing stories of lived experience the emotions that define place and spur political participation may find productive entrée into stakeholder dialogue by being sensitive to both the disjoint between individual and group representation and the expert-public gap.

Lived experience, memory, and place making

Lived experience refers to a series of temporal, spatial organizations that in its most basic form involves our immediate consciousness of life prior to reflection (Dilthey, 1985; Sartre, 1957). Lived experience - so defined - exists only in its representation and does not exist outside of memory (Denzin, 1992). The relationship between memory and the lived experience is at the center of knowledge production in coming to understand people's important places. Accordingly, to understand peoples' lived experience and how their important places are represented through the sharing of their stories, the role of memory and processes of remembering need further articulation.

The only way we can come to know and understand our lived experience(s) is through acts of remembering, and we share stories of our lived experience(s) through processes of telling and/or retelling. Further, recollection is not merely reduplicative, but socially influenced (Bartlett, 1932/1967; Durkheim, 1924/1974; Halbwachs, 1941/1992). We engage in memory-making processes in which the people and places of our lived experiences shape our memories and our stories. We make memory and we make places by sharing our stories. It is through social interaction (Schwartz, 1989) that place meanings – derived from memories of the lived experience - are represented to a broader audience. As we tell stories of our experiences and what it's like to be in a place we are constructing memories and sharing them in some fashion. We make memory and we make places by sharing our stories.

The process of memory construction is imaginative (Denzin, 2001) as the act of remembering is something that happens in the present but is referencing an absent past (Huyssen, 2003). Condensation, elaboration and invention are common characteristics of ordinary remembering (Bartlett, 1932, p. 205). Further, the ways that we condense, or streamline our memories and stories, is constantly in flux.

Memory is an active process, and not something that is passively received by the individual. Anthropologist James Wertsch (2001) describes the functional relationship between the individual and society using 'mediated action' (Wertsch, 1998; Vygotsky, 1987) as a theoretical foundation. The theoretical framework of mediated action holds that the cultural tools made available to the individual by society mediate all human action. While cultural tools are made available by society, they are actively consumed and usually transformed through use patterns introduced by the individual (Wertsch, 1998). We choose what we remember and how we represent those memories.

The ways we choose to remember and retell our stories is both a social and emotional process. The individual sentiment is transformed in the association of individual sentiments that comprise the sui generis collective sentiment (Durkheim, 1924). Halbwachs (1941) suggests that while individual memory is constructed within a group perspective (i.e., the collective), the collective memory is realized through the memory of the individual. In this sense the group can't express itself separately from its

individuals (Bartlett, 1967). This suggests that the individual memory is constructed by the individual based on the influence of the collective memory, and in turn, contributes to the collective or social memory of the group to which the individual belongs. Understood as such, the construction of memory is an ongoing process (Bartlett, 1932; Halbwachs, 1941; Wertsch, 1998) through which individuals can represent collective, or group sentiment.

Historian John Bodnar describes this process in terms of 'public memory' (Bodnar, 1992). Public memory is something that is continually created while at the same time drawn upon, to bring the past, present, and future together in ways that are relevant. Bodnar writes:

"Public memory is produced from a political discussion that involves not so much specific economic or moral problems but rather fundamental issues about the entire existence of a society: its organization, structure of power, and the very meaning of its past and present.... Its function is to mediate the competing restatements of reality these antinomies express. Because it takes the form of an ideological system with special language, beliefs, symbols, and stories, people can use it as a cognitive device to mediate competing interpretations and privilege some explanations over others." (Bodnar, 1992, pp. 14)

In marrying the idea of an expert-public gap with that of public memory, it may be understood that sharing stories of lived experience can refocus dialogue from a traditional scientific perspective while offering a way of mediating multiple perspectives and interpretations.

Investigating place meanings and/or senses of place can improve stakeholder dialogue when lived experience and the subsequent implications are made explicit. While many representative stakeholders have a firm grasp of traditional science they all have experiential knowledge. When the management areas of interest serve as a setting through which the individual has passed previously, memories and stories of their experience provide insight into their important place meanings. When these stories are shared among stakeholders - as exemplified in the chapter in this volume dedicated to 'learning circles' (Stewart, Glover, & Barkley, in progress) – it is a form of place making by which emotional knowledge may become formalized to the advantage of stakeholder dialogue. The lived experience perspective is critical in creating a public memory that is sensitive to the emotional knowledge that both catalyze political ideology and give meaning to place.

Creating memories and places by sharing stories of lived experience is a way to address what political scientist Martin Nie (2003) recognizes as a history of stagnant dialogue in natural resource planning that is consistently relegated to simplified, historically embattled stakeholder ideologies. When representative stakeholders haven't had the chance to share their stories with one another they haven't defined a shared stock of knowledge from which to draw. In this case they continue to draw more exclusively from their ideological moorings while participating in an expert-based dialogue.

We make memory and we make places by sharing our stories. Place meaning or sense of place fits with land-use decision making according to stories of lived experience told by and among politically active stakeholders. It is through social interaction (Schwartz, 1989) that place meanings – derived from memories of the lived experience - are represented to a broader audience. As we tell stories of our experiences and what it's like to be in a place we are constructing memories and sharing them in some fashion. Place meanings shared among politically active stakeholders to park and natural resources management are a way that managers-asstakeholders can come to understand the emotions that typically ride high in park and natural resource planning and policymaking (Nie, 2003; Freudenburg & Gramling, 1994; Johnsen, 2003; Lynch, 1993).

The basic theoretical underpinning of sense of place or place meaning, as referenced interchangeably here, is Tuan's (1972) notion that space becomes place as a result of an emotional transformation. To understand place meanings is to understand emotional transformations of space to place. Like place meanings, political ideology is the result of emotional transformation (Lerner, 1947). As political scientist Daniel Bell points out,

"... What gives ideology its force is its passion. ... One might say, in fact that the most important, latent, function of ideology is to tap emotion. Other than religion (and war and nationalism), there have been few forms of channelizing emotional energy. ... Ideology fuses these energies and channels them into politics" (Bell, 1962, p. 400).

With strong feelings for the places of interest and how they should be managed, politically active stakeholders are positioned at the emotional nexus of land use decision-making. These emotionally charged stakeholders - representing themselves and their affiliate interest groups - have the capacity to refocus dialogue in ways to which we the public can relate.

Our democratic processes need to be equipped to make sense of the emotional energy that catalyzes both politicized ideology and political action. With emotions playing a crucial role in expanding stakeholder dialogue it is important to further conceptualize them so we may explore representational strategies that move beyond politically simplified meanings of place. The sociology of emotion identified here as particularly relevant focuses on two modes of lived emotion: feelings of the lived experience, and feelings while telling about them (see Denzin, 1985, who referred to these as the "lived body" and "intentional value feelings," respectively). Feelings of the lived experience are directly applicable to the goal of formalizing emotions in park and wild land planning processes. Feelings of the lived experience immediately associate the individual with their environment in ways that are accessible to a broader audience. Denzin (1985) describes feelings of the lived

experience and their ability to foster a shared understanding, as an:

...orientation to the interactional world of experience, they are accessible to others and they can furnish the foundations for socially shared feelings.....Others are able to vicariously share in the subject's feelings. ... The subject can communicate and 'give' these feelings to others, thereby allowing them to enter into a field of emotional experience with him. (p. 230).

These feelings give meaning to places and are told in stories of the lived experience. Further, these types of feelings are commonly understood, as we all have lived experiences.

Feelings associated with the telling of lived experience are also easily available to others, and these "are felt reflections, cognitive and emotional, about feelings" (Denzin, 1985, p. 230). In other words, this second mode of emotions is the result of reflecting on our experiences and telling about them selectively according to a political and ideological framework. These two kinds of emotions, that is, feelings of the lived experience and feelings in the telling of them, provide appropriate footing for engaging and understanding stakeholders' emotions embedded in their experiential knowledge of place. To seek and interpret emotions as characterized by these two modes provide a means to expand stakeholder dialogue in ways that concurrently build trust and understanding.

We all have lived experiences and so we have an empathetic charge toward that of others. We can understand how people feel and how they express themselves when they are talking about something with which we are familiar. By centering stakeholder dialogue on lived experience we increase the capacity for what environmental historian Keith Basso (1996) has described as 'place making'. In describing the process of place making, Basso writes:

"... place-making is a way of constructing history itself, of inventing it, of fashioning novel versions of 'what happened here.' For every developed place-world manifests itself as a possible state of affairs, and whenever these constructions are accepted by other people as credible and convincing – or plausible and provocative, or arresting and intriguing – they enrich the common stock on which everyone can draw to muse on past events, interpret their significance, and imagine them anew." (Basso, 1996 p. 6)

Discussing lived experience and creating public memories is a way to 'enrich the common stock' of representative stakeholders while keeping tabs on emotional place meanings that, along with our memories, change over time.

It is important that the feeling of our experiences, the emotions that catalyze our political participation, find a more productive form of representation in land-use decision-making. Lived experience, as a philosophical orientation toward knowledge and knowing reality, holds central the idea that through the actual experience of something its essence may be felt and understood as reality (Fals-Borda & Rahman, 1991). Place, political ideology, and the emotion enmeshed in both are identifiable through sharing stories of lived experience. Stakeholders who represent larger constituent groups in planning processes feel strongly about the decisions that are made in managing their important places. That they care enough to subscribe to a political ideology and become vocal representatives for a larger group locates these

individuals at an emotionally laden crossroads. Sharing stories of their experience in these places they hold dear is a way to shift the focus of stakeholder dialogue away from historically entrenched rhetoric while focusing on important and personal place meanings. In so doing, stories of lived experience shared among stakeholders can present new possibilities in shaping decision-making forums.

In a technical report entitled *Understanding Concepts of Place in Recreation Research Management* (L.E. Kruger, T.E. Hall & M.C. Stiefel eds., 2008), Stokowski (2008, pp. 31-60) describes a history of research and theory on place as a social construction that is both emotional and constantly in flux. Accordingly, Stokowski extends Tuan's (1976) emotional transformation of space to place in necessitating the communicative precipitation of place. In championing the sharing of experiential knowledge in placemaking processes Stokowski extends a charge to managers-as-stakeholders:

"A manager's imperative then, should be to understand the emergent qualities of place-making and place meanings in order to respond to patterns of discourse shaped by structured communicators linked across social networks. In this effort managers should err on the side of variety rather than constraint in allowing resource settings to be as open as possible to social and cultural behaviors through which place meanings may be expressed." (Stokowski, 2008, p. 54)

As it is has been described here, the malleable nature of place meanings or senses of place is in accord with humans' changing experiences, feelings, and memories. How we feel about the people and places of our past and present shape our memories and our stories.

Sitting at the crossroads of public representation and land-use planning, representative stakeholders should be afforded an opportunity to share their experiential knowledge of the area. This is in keeping with the imperative of a manager-as-stakeholder to, "understand the emergent qualities of place-making and place meanings in order to respond to patterns of discourse shaped by structured communicators linked across social networks" (Stokowski, 2008, p. 54). As these representatives discuss their lived experiences in these important places the door is open for important emotional knowledge to further become a part of public memory. By sharing these stories, a public memory may be forged and a place made that can present new possibilities for the future that are in closer keeping with public desire.

A snapshot of place: sharing and interpreting stories of lived experience

When researching place meanings, or sense of place, lived experience inquiry seeks to draw out memories of the lived experience that are rooted in particular locations. The method(s) employed will ideally prompt memories of the lived experience in the place(s) of interest to the researcher(s). Photo-based methods are well suited for eliciting memories and stories of lived experience that are place-based. Particularly, the use of participant/stakeholder photographs to guide conversation has been a strategy used in place research to elicit memories and stories of lived experience (Stedman, Beckley, Wallace, & Ambard, 2004; Stewart, Liebert, & Larkin, 2004; Stewart, Barkley, Kerins, Gladdys, and Glover, 2007). Told from their point of view, both literally and figuratively, stories generated from talking about participant photos foster a shared emotional field of experience. This shared field of experience can

extend beyond one-on-one conversations. An example of group sharing or collaborative learning is described in this volume in terms of "learning circles" (Stewart, Glover, & Barkley, in progress). In this chapter the authors describe instances of shared discussion among co-participants about their own and each other's photos. These photos prompted memories and stories that when shared, led to civic discovery and new ways of understanding. The role of photography is central to this type of dialogue for its ability to ground representation in the experience and memory of the participant/storyteller.

Participant photographs act as a prod for experiential memory (Harper, 2000;. In being asked to discuss their photos, participants recall their experiences and tell stories in ways that create the places of these experiences. The points at which photos were taken are implicitly important to the participant, as they have intentionally turned their gaze on them and etched the record in a photograph. By talking about their own photos, people remember and discuss spaces through which they have passed and their experience in passing. They discuss their lived experience of place in ways that tap emotional knowledge (e.g. Douglas, 1998; Klitzing, 2004).

This type of study is particularly relevant when the participants are individual stakeholders – who by definition are emotionally driven - representing larger constituent groups. The ability to see and discuss stakeholder's important pictures from their perspective, both literally and figuratively, is an appropriate way to elicit stories of lived experience. Understanding these stories to take shape according to emotions that comprise both place and political ideology, it is appropriate and useful for representative stakeholders – so defined – to take and discuss their photos in attempts to expand stakeholder dialogue.

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RELATIONAL MARKETING: LINKING TRUST AND PLACE MEANINGS TO PROTECT CULTURAL LANDSCAPES

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A framework to articulate and protect (or restore) relationships between the public and public lands was described by Watson and Borrie (2003) as public purpose marketing. These authors, and others, applied this framework to a study of how public attitudes toward recreation fee policies relate to relationships with public lands and public lands managers. They also demonstrated the effectiveness of segmenting the public based on relationships with National Forest lands (Borrie and others 2002). These authors also built upon this framework to propose a system for monitoring relationships between the public and wilderness lands (Watson and Borrie 2006). Within this framework, the public is considered primary stakeholders (both customers and partners) of public lands services.

Most marketing approaches focus on transactions with customers, which have a distinct beginning, short duration, and sharp ending. A relational exchange, however, acknowledges effects of previous contacts and knowledge, is longer in duration, and reflects an ongoing process. Watson and Borrie (2006) suggest that when providing services for the public through the development of programs on public lands (or any other collective lands), the more appropriate view of "customer service" would probably be the fostering of a relationship between the members of the public and the places that have been established on their behalf as public lands, particularly any type of protected areas.

Not everyone desires the same relationship with a producer of goods or services. An organization may need to pursue both transactional and relational marketing simultaneously, and customers may exist on a continuum of transactional to collaborative exchanges. In the public sector, however, members of the public are, by definition, involved in a collaborative relationship with the stewardship agency taking responsibility for implementation of public policy. While we are suggesting that a collaborative relationship exists for all people, we do acknowledge that the level of commitment or (or intensity of meanings) for the services provided by an agency and the level of trust instilled among members of the public may vary substantially. Relational marketing suggests that a focus on understanding variation in trust, commitment, and meanings attached to protected areas will be paramount in developing and implementing public policy to meet the mandates or purpose of these public lands (Watson and Borrie 2006).

A Cultural Landscape with Contrasting Meanings

On the Flathead Indian Reservation in Montana, the Mission Mountains Tribal Wilderness (92,000 acres) is bordered on the east, across the Mission Mountain divide, by Forest Service Wilderness (Flathead National Forest, Mission Mountains Wilderness – 74,000 acres) and on the west, between the Wilderness and the Reservation community, about 22,000 acres of land in a unique protected status. It's not wilderness, but when originally established it was listed as not available for commercial timber harvest, either. The "Buffer Zone," originally designated to protect the Wilderness from human activities extends along the wilderness boundary and

contains some homes, a few roads, and therefore, remains a working landscape within the community. Both the Wilderness and the Buffer Zone are broadly considered protected cultural, as well as natural, landscapes, thus major decisions about management of these areas are subject to review by the Tribal Cultural Committee, the Tribal Council and the Tribal member public. To successfully improve forest health within that Buffer Zone and increase opportunities to restore fire in the Wilderness, the Tribal Forestry Department and the public need to work together to find solutions to increasingly threatening fuel buildups.

Participatory approaches to understanding values at risk

One of the key problems in developing a better understanding of different responses to landscape level management actions, such as fuel treatments, is being able to confidently record and accurately spatially delineate the meanings stakeholders ascribe to the landscape. Being able to actually map and discuss the different meanings people place on the landscape has a number of advantages over more general place-based techniques. These include the ability to link meanings to specific locations or landscape units, and perform advanced analyses on responses by looking at spatial relationships based on proximity, adjacency, containment, connectivity and visibility. "Hot spot" areas have been delineated in past studies through categorizing information such as number of people indicating a particular spot is important, the type of importance people gave to that indicated spot and the specificity of the area indicated. Of particular need for improvement in this type of methodology was the need to increase the number of people engaging in this map-based activity, retain good scale representation, but also capture the intensity of the meanings and identify perceived threats to those meanings. The cumbersome task of a researcher meeting with every person, or even in focus group discussions, and leading them through a pencil and paper exercise while trying to either record or note things they say about these important areas was difficult. Mailback attempts at this complex task have largely provided unacceptable response rates, particularly within native sub-populations. An individual's relationship with a local landscape is essentially fuzzy and cannot be easily captured using traditional map-based features or entities such as points, lines and polygons. So, while scale has sometimes been estimated, it has not been captured efficiently, and the intensity of meanings attached to places has not previously been captured at all.

In order to address the issues described above, the current project adopts more fuzzy methods of capturing the landscape areas that people value or for which they hold a particular meaning. This is based around the application of a Java-based mapping applet called "Tagger" that uses a spray-can tool, similar to that found in most desk top image processing/manipulation packages, to allow users to define areas over a base map in a manner that allows them to easily vary the density, extent and shape of the sprayed area. This is used to capture information about fuzzy spatial concepts such as vagueness and approximation in defining spatial pattern and extent, as well as (un)certainty and importance in the relative values and meanings attached to these. The system can be used both online over the internet and offline on a stand-alone laptop facilitated by a member of the research team.

A combination of qualitative, culturally sensitive research and a web-based mapping exercise employing fuzzy mapping methods was used to develop understanding of the meanings Tribal members attach to the Buffer Zone, articulate trust issues, and describe perceived threats to these meanings. An important element in developing this understanding was describing contrasting meanings associated with both the Wilderness and the Buffer Zone by both Tribal and Non-tribal residents. Results are guiding focus group discussions with forest managers and Tribal members about proposed fuel treatments. While public lands programs

affect and are somewhat responsive to both Tribal and Non-tribal residents, only Tribal residents vote on representatives to the Tribal Council and on important community issues. To build trust among Tribal residents, fire planners must understand how proposed actions interact with values at risk assigned by the local community and describe a prioritization process that addresses publicly perceived threats.

The actual methods used here to capture spatially fuzzy regions and their ascribed attributes draw strongly on previous work on mapping place meanings and on participatory GIS. These methods are brought together in developing a fuzzy GIS-based tool for collecting qualitative, but spatially referenced, local knowledge and meanings from a range of key informants and local people. These are analyzed by creating composite maps of the fuzzy attribute-tagged maps generated by survey respondents and linking these to more in-depth interview transcripts from key informant interviews. The result of this phase of the project is a GIS dataset that provides a visual representation of the range, types, intensity and spatial distribution of the meanings associated with the Buffer Zone.

Data were collected in a way that generated five map layers of themed meanings. These were driven by the qualitative research findings, and collected to represent the meanings of the Buffer Zone for themed topics covering "protection of the wilderness," "wildlife and water quality," "recreation and scenic values," "access and functional attachments," and "personal and cultural" meanings. This chapter will build upon analysis that used 255 images developed by over 60 participants across the five themed layers. A broad appeal was issued to residents to participate in the web-based version of the information collection activity or have a research assistant bring a laptop version to the person encouraged broad participation in the community for 3 months. Input is averaged and images produced using classes based on natural groupings inherent in the data with break points identified by picking the class breaks that group similar responses and maximize the differences between classes (Jenks, 1967). For maximum insight, contrasts are made not only across layers of meanings, but also across Tribal and Non-tribal residents. There are several ways these maps can be used to fuel discussion with the public.

Implications for decision making

Complete analysis links these mapped meanings to the threats respondents perceive associated with each layer of meanings. These are the priority inputs (location, meaning, intensity of meanings, and threat) that in combination managers must integrate with resource management objectives to maintain public trust. Focus groups composed of Tribal members, facilitated by the Tribal Forestry Community Outreach Education Specialist, interact with Forestry Department staff who are proposing specific fuel treatments at specific places. Emphasis is on three questions in these focus groups: 1) further clarify the threat (or benefit) of "logging" on the various layers of meanings ascribed to specific places, 2) further clarify the threat (or benefit) of fire (wildfire? Prescribed fire? Exclusion of fire?) on layers of meanings, and 3) help with understanding of how Tribal members evaluate tradeoffs between these two threats to the meanings they attach to this landscape and how trust will be affected by decisions implemented. This, the final stage of this project, is focused on application of place meaning knowledge to decision-making and an evaluation of whether public members believe better solutions result from participatory activities will be obtained.

Figure 1. Example analysis of data maps across 5 layers of meanings attached to the Mission Mountain Tribal Buffer Zone by Tribal and Non-tribal members (10 category Jenks method).

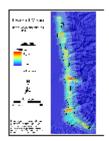
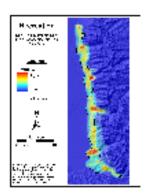
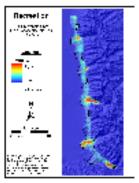


Figure 2. Example analysis of a single layer of meaning (Recreation) attached to the Mission Mountain Tribal Buffer Zone by Tribal and Non-tribal members (10 category Jenks method, categories derived from data point overall analysis and applied to this single data layer).





MEASURING HUMAN/PLACE BONDS TO ASSIST PUBLIC LAND MANAGEMENT

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Public land managers must consider a broad range of public input in developing effective and equitable land use projects. There is growing agreement that increased understanding of public views and desires will enhance honest and meaningful involvement of the public and contribute to more balanced, integrated and equitable management decisions (Kruger 2003). The challenges are to organize understanding of widely varied interests in meaningful ways and develop the best balance between a consideration of each individual's views and that of the aggregate of the affected populations.

Organized stakeholder groups are often the most common means available to the public to articulate their interests in project planning situations - through lobbying, organized letterwriting, attending public meetings, or in collaborative decision-making processes. However, individual needs may be poorly represented by stakeholder groups. Special interest stakeholder groups commonly focus on a narrow set of objectives, while their constituents are unique individuals with varied concerns, values, and life stages. Many public planning processes fail to find solutions to contentious issues, not only because stakeholder groups struggle against each other, but also because these groups cannot agree internally on acceptable management options (e.g., Marston 2001; Moseley 2001; Snow 2001). This chapter argues that an examination of human / place bonds at an individual level through survey research and market segmentation analysis clarifies mutual interests among participants in land use decisions. Results of market segmentation analysis reveal alliances within communities that reflect powerful, latent expectations and demands that enable more creative and cooperative solutions to contentious wildland planning problems.

BACKGROUND

There is growing evidence that people's bonds with public places influence their views about conflict and appropriate management solutions in natural resource management decisions (e.a.,

Brown, Reed, and Harris, 2002; Cheng, Kruger, and Daniels, 2003; Davenport and Anderson,

2005). Low and Altman (1992) offer a conceptual framework compiled from a number of authors, across many disciplines, engaged in developing understanding of humans and place.

They use the term "place attachment" for the concept of human ties to place (Altman and Low

1992). Hinting at the numerous perspectives on the concept of humans and place, they say that place attachment "subsumes or is subsumed by" other terms in the literature including topophilia, sense of place, and place identity, among others. Their view of place attachment involves an interaction between practice, cognitive, and affective components of expression, but they say that studies (as well as the term, itself) tend to emphasize the affective, emotional component. They describe the practice

component as actions and behavior, the cognitive component to include thought, knowledge and beliefs, and the affective component as emotional attachment. The human / place bond research approach is based on the recognition that people's ties with public wildlands are difficult to observe directly, are expressed in multiple ways, and are related to attitudes about management of those places. As a latent concept, researchers typically rely on measuring it indirectly through the use of indicators (Watson, Glaspell, Christensen, Lachapelle, Sahanatien, and Gertsch 2007). The choice of indicators thus, becomes critical, and in this approach, this choice guided by an applied goal to improve the natural resources management decisions. Certainly, the chosen indicators should be easy to monitor, valid in their representation of latent concepts, have reliable sets of measures based in natural resource management research, and be related to opinions about management.

To provide this robust set of measures this approach uses three general types of indicators in quantitative surveys to assess human / place bonds. These three types of indicators fit the above criteria for applied research and represent the behavioral, cognitive, and affective forms of expression in Low and Altman's framework. The three types of indicators include: 1) on-site activity participation, measuring the behavioral component; 2) assigned values, representing cognitive beliefs; and 3) place attachment representing the affective component. These concepts have all been previously considered in research applied to recreation and natural resource management and methods have been established for their measurement. This approach is unique in combining these three concepts as the primary indicators of human / place bonds, and in segmenting the public based on these bonds for the purpose of developing understanding about public opinions in contentious planning decisions. Combining these indicators offers a robust and diverse set of measures, each with a history of application in natural resource management studies, to better reflect the multidimensional nature of human / place bonds than a traditional single-focus method.

Segmentation of the public, using a marketing research-type cluster analysis (Parasuraman

1986), provides a potentially powerful method for identifying and understanding important concerns of stakeholder representatives as well as their constituents, based on human / place bonds with public wildland places. Applying this form of marketbased research will allow managers to consider management options that protect and enhance the deepest and most abiding elements of people's interests regarding public lands. For example, a collaborative planning effort for motorized recreation use may invite a group of stakeholders to the planning table that includes 'motorized recreation users,' 'nonmotorized recreationists,' and 'local homeowners.' A typical local resident, however, might easily fit all of those categories to some degree, with no single stakeholder group adequately representing their interests or concerns. Planners using a more sophisticated market segmentation methodology might find that a local community includes several different types of motorized users, such as young motorcycle riders and familyoriented ATV'ers, each with different motivations, use patterns, and concerns about management. They might also find that some homeowners in the area ride horses and are concerned about the safety of encounters, while the same homeowners also participate in motorized recreation and have concerns about maintaining access to the public lands in their backyard.

Two case studies illustrate the application of this approach: the Yakutat River in Alaska, and the

Darby travel management planning process on the Bitterroot National Forest in Montana. Each of the case study planning situations included controversial issues about specific recreation activities on local National Forest Ranger Districts. The market segmentation approach applied to the Yakutat and Darby case studies identified five and six segments (population subgroups), respectively, that reflected like-minded or like-valued individuals within their geographic communities. Each of these subsets of the overall resident population displayed different human / place bonds with local public lands and each had statistically significant differences in concerns about conditions and perceptions of appropriate management. In Yakutat, the research showed differences of opinions between two sport fishing groups on previously unrecognized desired fishing locations; and in Darby differences across segments hinged not on motorized versus non-motorized use, but on user-created routes. In both cases, attitudes about appropriate management options were more directly related to multiple types of human / place bonds than to activity participation alone.

In the Yakutat case study it became apparent that the human / place bonds between local residents and their special places on public lands are imbedded in history and culture, and include perspectives involving identity, tradition, subsistence, and livelihood. The issues that are important to these local residents differ from those that are important to most recreation visitors to the Situk (Christensen, Watson, and Whittaker 2004). In the Darby case subsistence and livelihood issues were less important, but recreational opportunities and traditions of public land uses pervaded the experiences of both long- and short-term residents.

In both cases those community segments showing intense bonds cared more about the overall condition of these public places, favoring stewardship-oriented management even at the expense of their own freedom to recreate. Identifying management solutions based only on the views of participants versus non-participants in recreational activities would have failed to account for the diverse concerns and opinions across the local community. Community segments that participate in key activities, but also have bonds linked to preferences other than activity participation, adopt different attitudes toward management. The segments that show multiple bonds generally show a stronger land ethic or stewardship orientation than segments whose bonds are based primarily on only one or two specific types of bond expression, particularly participation in the controversial activity and/or functional place attachment.

These "high intensity" place-bonded groups might represent managers' best allies in resource protection. They appear to have the most realistic perceptions of current conditions, care deeply about the place, and are willing to sacrifice personal benefit for the greater public good.

Residents with bonds more focused on a single activity seem to care more about the space as a backdrop providing the opportunity needed for their activities.

DISCUSSION

A typical planning process would consider all sport anglers (in the Yakutat setting) or all motorized users (in the Darby setting) as one stakeholder group with a common set of interests and concerns. Yet in both case study communities, the human / place bond research approach revealed multiple community segments on each side of a seemingly dichotomous controversy.

Each of these communities of like-minded/like-valued individuals showed different types and intensities of human / place bonds with their local public lands, concerns

about the resource, and opinions about management solutions. It presents managers with a far more detailed and nuanced view of public expectations and potential community-level alliances that could support or oppose a given management activity. The case studies suggest the utility of the human / place bond approach to identify distinct communities of interest within geographic communities and to provide meaningful insight about public opinions in contentious natural resource planning situations. It is important, however, to interpret the results about these community divisions within the limitations of the research methods and our ability to simplify complex situations. The community segments that are identified do not represent homogeneous groups with consistently held experiences and opinions. Rather, this research identifies 'clusters' of the population with characteristics more in common than with other members of the population. The borders of these clusters are imprecise and porous - the segmentation results offer insight about the structure of the community, but membership and characteristics of these groups should not be interpreted too literally. These seaments are not stakeholder groups, with tightly held interests, but rather 'clusters' of interests with more fuzzy, ill-defined, boundaries between groups. The segmentation results are not the ultimate representation of how people feel about a place and its management, but they do offer us insight and nuanced understanding about the structure of these relationships. Understanding the differing orientations and structures of community segments does not answer the question for managers about how to deal with this knowledge in resource allocation decisions. This research does not suggest that it would be appropriate to prioritize segment desires based on stewardship orientation or ignore those segments with low-intensity bonds.

Wondolleck and Yaffee (2000) suggest that more effectively involving the public in land use planning is not only important for developing future community capacity for problem solving, but can also shape the values that people assign to natural resources and foster a sense of responsibility toward the public good, thereby improving future community capacity to make better decisions for the overall public good. Managers may need to make a special effort to reach out to and foster relationships with certain community segments in an attempt to improve their stewardship orientation based on the nature of their bonds with specific public places. For example, opportunities might exist to demonstrate appropriate recreational behaviors or provide information to segments that care deeply about the place but may lack the first-hand experience to form realistic expectations about conditions and management concerns. Managers might also seek to build alliances between segments that are more likely to put ecosystem health in front of personal agendas, and use those alliances to apply peer pressure to segments less inclined to exhibit stewardship or retain a land ethic.

CONCLUSION

A market segmentation approach supplies a relatively underutilized and replicable tool for public wildland planners. The information from a human / place bond study could be useful during the planning process to managers, organized stakeholders, and the general public to improve understanding of local views during project planning efforts. This research could help break down inaccurate stereotypes that lead to planning gridlock by identifying more moderate stances within traditional stakeholder groups along with common views and activities shared between seemingly opposed groups. All public places cannot serve all purposes to all people so it is necessary to allocate uses at least partially based on the compatibility with the public purpose of the place and the potential for conflict with other legitimate uses. This type of information may

help guide managers to make those decisions by developing understanding of how important specific places are to different groups of citizens, why they are important, and what would be required of possible substitute locations. It provides a clearer view of the major types of local interests in the population, as well as shedding light on some of the characteristics of citizens holding relatively extreme views compared to those with moderate stances that are more likely to reach agreement. The most appropriate time to implement the type of approach described here would be prior to a formal planning process or community collaborative effort. This would allow subsequent deliberations to possess a more objective basis for determining the major types of local stakeholders that should be represented, at a minimum, during a collaborative process. The information would serve as a complement to other supporting documentation usually gathered by other specialists during early phases of project planning. The results may also be used to assess the overall equity of resource allocation on the landscape beyond each small scale planning project. Further, successful application of segmentation in public wildland planning can encourage productive cooperation between social scientists and managers such that other social science tools supporting management assessments and evaluations might become more broadly applied.

PLACE REPRESENTATION AS A TOOL FOR FIXING THE YELLOWSTONE RIVER

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What is most appealing about the concept of place is its accessibility as a fundamentally human experience. Place is the site of everyday living. All persons (all organisms) live in and are situated in a place. Place supports physical and social life. It is where each experiences life. It is the locus of everyday practices of home, work, leisure, collective action, socialization, and rest. Place is the standpoint from where we see others and ourselves (Proshansky et al. 1983). With such wide reaching implications for identity, community, and home sensibilities, it is no surprise that people ascribe tremendous value and meaning to the places they live (Fried 1963, Tuan 1977, Berdoulay 1989, Davenport & Anderson 2005). The ubiquity of place in humans' lives, the dependence upon home places and communities, and the love and defense of favorite places make discussing place a familiar topic to which anyone with a sense of place can contribute. The accessibility of place as locale for living and the meaningfulness imbued upon place make it an appropriate framework to appeal to rethinking ways of managing natural resource places in a different, more holistic, and meaningful way.

In spite of this familiarity, one of the difficulties of this project of 'fitting place to decision making' is in knowing precisely how to use this accessible concept to leverage better managerial practices for natural resources planning. Place becomes one of those well-understood misunderstood topics. Obvious questions arise. What aspects of place sensibilities are useful to managers? How can the wealth of meaning found in place be used to make better decisions? Difficult questions accompany the above. How can scholars promote place as a tool that will not be carelessly usurped and brandished as a weapon against publics, residents, democracy, wildlife, ecological functioning, etc.? How can place be made useful without losing its vitality, specificity, and richness? What is the utility of 'place' as a framework for management?

Because our existence depends upon natural places and because we need language to conceptualize, discuss, and manage these natural systems (Peterson 1997), then if place is to become a beneficial notion to stakeholders, managers, and natural systems within decision making practices, practitioners must address how managed places are represented within the language of planning as well as the consequences of that representation. We suggest that the manner in which place enters public discussion, as linguistic representations, is useful for the management of natural resources. We argue that the management of natural resources requires shrewd attention to the management of those symbolic resources in the public sphere because natural resources management and the management of place is a political enterprise (Cheng et al. 2005). This paper is a discussion of place representation or the rhetoric of place. First, we discuss the politics of place as the clash of vested and vetted socially-constructed representations of place. Next seeing place as a social construct within the public discourse, we turn to the literature on representation to discuss the power and possibilities of place representation. Then, we illustrate these powers and possibilities

through a rhetorical deconstruction of two dominant place representations of the Yellowstone River in Montana and North Dakota (U.S.). Finally, we argue that because place is socially constructed, place can also be socially re-constructed in ways that can disrupt traditional partisan simplifications and stalemates in resource conflicts. These reconstructions of place offer managers another technique that allows for new ways of thinking of place, other possibilities for public participation, and a new manner in which to reframe old relations between stakeholders, managers, and the places in which they are situated.

Place Representations and the Politics of Place

The representation of place is a cultural practice (Rose 1994). Because humans live in place and are social, they share their situated perspectives with others. Place becomes a social text continuously constructed and reconstructed within selves, communities, shared cultures, and social practice (Low & Altman 1992, Cantrill 2004). Expressing this sense of place, listening to others talk about place, and exchanging stories, messages, images, and depictions of place within the social realm socially constructs various representations of place (Greider & Garkovich 1994, Cosgrove 1998, Stokowski 2002, Carbaugh & Rudnick 2006, Kyle & Chick 2007). Place adopts active and prominent characterizations in the public discourse (language in action) and other circulated images. Place becomes fixed into a creation of the social world (Lefebvre 1991). Place as a socially-fixed representation serves as a tool for thought and action.

For groups of people to work together, a vocabulary is needed (Burke 1959). Resource planning requires a vocabulary that divides up the world into accepted terms and conceptual representations of space (Rydin & Myerson 1989, Guttenberg 1993, Whatmore & Boucher 1993, Myerson & Rydin 1994). To collectively explain and handle the complexities of human and natural systems, linguistic representation is necessary. Place representations name and bind the site conceptually in order for people to think and speak about place. Constructions of natural places have power because of their ability to bring a grand order upon the natural world and human world. Whether discussed in objective scientific terms or vernacular discourses of ballads, yarns, legends, or monuments, place representations take the form of clustered terms and phrases that have story-like qualities with mostly cogent logics, a structural and temporal order, and implied value (Stegner 1992). Place representations are kept alive through storytelling because they work people as a source of explanation, comprehension, thought, meaning, and beyond (Entrikin 1991, Smith 1999, Carbaugh & Rudnik 2006). Representations of place in public discourse make sense of complexity, unite disparate persons, appeal to collective memory, and give authority to subscribers.

Governing agencies create and use working representations of managed places rooted in various scientific trainings, available data, and cultures. The discourse of resource management has been one that relies upon technical knowledge to control and manipulate the natural environment within institutional, legal, and bureaucratic capacitates and frameworks. Place is often treated in objective terms by bureaucratic institutions (Entrikin 1991, Killingsworth & Palmer 1992, Hernall & Brown 1996). Yet trends in public participation in resource planning law and practice suggest that the subjective accounts of place are a valuable source for understanding participant sensibilities (Williams et al. 1992, Cantrill & Senecah 2001, Cheng et al. 2005, McCool et al. 2008). How 'place' enters the vocabularies of public planning discourses as a representational form is critical to the failure and success of managerial efforts (Norton 2005).

The representation of place has expressive, functional, and instrumental values, but it also has a rhetorical dimension. For "political power is not absent from knowledge, it is woven together with it" (Foucault 1994:32). Representations are used to create identifications (and divisions) for social cohesion. They explain and convince audiences of their accuracy and legitimacy. Although they seem innocent because of their familiar uses, representations of place are involved in games of power (Berdoulay 1989, Tuan 1991, Rose 1994) serving as "a means of control" of behavior, interpretive frames, and decision making (Lefebvre 1991:26). Like street signs, representations of place are intended to guide, direct, command, and orchestrate behavior. Dominant images and pervasive discourse form representations of the material world that affect the practices in and the quality of natural spaces. Lefebvre (1991:42) contends that representations of place "intervene in" and "modify spatial textures" according to the "truth-teller's" interests.

In natural resources planning venues where access to resources and other economic gains are at stake of being lost or gained, established power relations among stakeholders and within resource communities become apparent within the planning discourse (Dryzek 1997). The management of natural resources is a political practice where established interests seek to preserve their stake (Kemmis 1990, Honadle 1999, Cheng et al. 2005). Representation of place becomes a site of struggle where the advancing of one place meaning is simultaneously a displacement of another. In the politics of place, controlling the dominant representations of place is a means of controlling the symbolic resources of decision making. Any legitimately accepted representative frame of a place within the public realm engenders a new way of thinking (Lackoff 2004).

Steering, promoting, mystifying, and re-emphasizing certain representations over others constitutes two kinds of power according to Latour (2004:102): the power to take account and the power to put in order. The power to take account dictates what 'facts' get counted as information (Luhmann 1989) and what gets excluded as ancillary. In pursuit of simplification or some other stated aim, aspects of the resource conversation may become screened out of the discussion by framing some information as 'already established', 'common sense', 'the nature of things', or 'indisputable premises' (Latour 2004). This can silence others' contributions or new information within the debate. The power to put in order assigns a rank order of relative importance to existing positions in the planning discussion. It establishes not questions of fact but of value. New ways of thinking, voices, or concerns in resource conflicts must be fitted into the existing order. New contributions thus occupy a relative position of value within the established order. The powers behind place representation lead to a clash of interested representative frames that do work for interested groups. The battleground is in public conversation where each seeks to reframe the place to create specific ways of thinking about access rights, quality and quantity of the resource, management authority, and what is considered legitimate.

Representations of place happen in subtle ways. Place representations are arenas of meaning that evolve with time, events, knowledges, terminologies, and cultural changes. That power is involved is not to suggest that all constructions of place contain nefarious players. However, the way that social constructs of place explain complexity, evoke local identifications, frame thought, direct behavioral norms, and earn

legitimacy are important considerations when planning and managing natural resource places.

To illustrate the role of place representation in the politics of place, the power it wields, and the possibilities for using place representations for better management we examine the rhetoric of two popular representations of the Yellowstone River using data from the Yellowstone River Cultural Inventory (YRCI).

The Yellowstone River Cultural Inventory

As the socio-cultural part of a larger interdisciplinary riparian-corridor study sponsored by the U.S. Corps of Engineers (Corps) and the Greater Yellowstone River Conservation District Council (Council), we conducted 313 in-depth open-ended interviews with riverfront residentialists, recreationalists, agriculturalists, Native Americans, and civic managers along the entire length of the river (Table 1). In five weeks of fieldwork, we visited the homes of participants and spoke with them about their perceptions of their home place, the river ecology, river activities, uses, and conflicts (Gilbertz et al. 2006). All interviews were digitally recorded, transcribed, thematically clustered, and sorted into a report available online. We collected an inventory of these representations of this shared natural resource that would position managers to make decisions that account for river-front residents' symbolic and material values. There were three primary objectives.

- The first goal was to document how the people of the Yellowstone River describe
 the physical character of the river and how they think the physical processes,
 such as floods and erosion, should be managed. Within this goal, efforts were
 made to document participants' views regarding the many different bank
 stabilization techniques employed by landowners.
- 2. The second goal was to document the degree to which the riparian zone of the river is recognized and valued by the participants.
- 3. The third goal was to document concerns regarding the management of the river's resources. Special attention was given to the ways in which residents from diverse geographical settings and diverse interest groups view river management and uses.

We assessed the validity of the analysis by communicating initial findings through over 30 regional public presentations, invited talks, presentations to the Greater Yellowstone River Conservation District, and a 90-minute National Public Radio call-in show on Yellowstone Public Radio with a webcast. We informed our participants of the radio show, regional presentations, and the final report's availability online and in hardcopy form by follow-up postcards.

The Yellowstone River

From above, the Yellowstone River looks unlike any other river of its size in the U.S. From its headwaters in Wyoming above Yellowstone National Park through Montana's agricultural heartland past Billings, the largest city in the Montana, to the confluence with the Missouri River twenty miles in North Dakota the river bends and braids 670 miles. Besides being managed as the western-most headwaters of the Mississippi River, the Yellowstone River is unique because it is the longest undammed river in the United

States. Its wild origins of melt water that continuously carve the Grand Canyon of the Yellowstone and its scenic falls below the high alpine Yellowstone Lake make it a centerpiece for the world's first national park. The scenic amenities, the wild unimpeded whitewater, and the unstocked blue-ribbon native trout fishery make it attractive to a growing number of anglers and vacationers who visit and build homes along its banks in its western-most reaches. In addition to its contribution towards human and wildlife habit at, the river waters are spread throughout its valley lands providing productive ground for row crops, cattle, aquifer recharge, and an overall cooling of this otherwise arid valley.

Because the river has no structural dams that impound its waters, it floods every June after the snow melts in the mountains of its tributaries. The periodic floods, locally called the "June rise," make this river system highly mobile cutting new courses and shifting away from previous channels. Because private lands constitute roughly 84% of its banks, riverfront agricultural and residential properties are often at risk of flooding and losing land to the erosion of the river banks. In the summers of 1996 and 1997, there were two back to back 100-year floods which caused many private landowners to apply for bank stabilization permits from the Corps to mitigate the erosion. The number of stabilized banks has affected the morphology of the river cutting deeper channels and flooding new areas that previously did not flood. Many recreationalists argue that the bank stabilization projects consisting of weirs and rip-rap (large boulders, rock piles, or vegetative debris placed along the bank to prevent erosion) have negatively impacted the trout fishery, cottonwood tree regeneration, and riparian vegetation. For these reasons, the riverfront development pressures, and its unique characteristics, the National Geographic hailed it as "America's last best river" (Chapple 1997).

Two dominant representations of the river that clash among riverfront residents, agriculturalists, recreationalists, Native Americans, and civic leaders are: the Yellowstone River as "a productive place" and as "a wild and free-flowing river." These interpretative frames are used to make sense of management and user conflicts within the politics of this place. In the following section, we outline these representations of the Yellowstone River as they explain the setting for the actions of agents who live along the river as well as the river system itself.

The Yellowstone River as "A Productive Place"

Many participants with agricultural affiliations represent the Yellowstone River as a "productive" place. The land bordering the river is viewed and valued for its productivity. The water of the Yellowstone River is and has been essential to the agricultural productivity of these lands. The valley's fertility comes from the nutrient-rich spring creek tributaries as well as eons of flooding and receding that has distributed minerals and organic matter. Combined with the river's water as a source of irrigation water, the valley contains the most productive agricultural commodity grounds in Montana. The productivity representation is a source of identification among riverfront agriculturalists. They love the rural lifestyle, the river, and Montana. They are neighbororiented and respectful of others' private property rights.

This identification is amplified by the hardships they share farming an arid landscape with many financial and cultural changes in the continuity of their communities.

Adherents to the productive ground construction told us that their way of life is getting more difficult to sustain due to threats of development, rising property taxes, falling or

stable commodity prices, increasing cost of equipment and fuel, the requirement of more acreage, the disinterest by the younger generations, water conservation regulations, new laws, possible water rights re-allocations, and the rise of the recreational tourism industry and its management effects. With more people moving to the valley for leisure, retirement, and recreational amenities, the agricultural production is affected by an influx of new cars on the rural roads, new homes, new taxes, new political orientations, new trespassers littering and leaving gates open, and new problems. All riverfront landowners share one common neighbor: the State, its water, its wildlife, and its various publics. Farmers and ranchers are skeptical of the management choices of this wealthy and powerful neighbor. The state's lack of management of its river causes problems that threaten the productivity of the land. Such problems of exotic invasive weeds, annoyances related to recreational anglers and floaters made possible by Montana's river access laws, and the erosion caused by high water as a result of difficult permit processes for bank stabilization are all examples of how the state is a bad neighbor that threatens productivity. The actions of outside others are framed within this productivity representation...

The Yellowstone River as a "Wild and Free-Flowing River"

"Free-flowing river" is a value-laden image that contrasts with the perspective of seeing rivers as solely for the purposes of human use at all costs. It is a direct hailing of a history of hard-fought iconic battles between environmental groups and dams (Hetch Hetchy, TVA Telico dam, Dinosaur National Monument, Grand Canyon Dam proposal, Glen Canyon Dam, others). Specifically for the Yellowstone River, the fact that there is no dam on the river is a victory over the federal government's proposed Allan Spur Dam of the 1970s that was to support water security and damage a unique trout fishery.

As one powerful participant told us, after advocates heard about the proposal they represented the Yellowstone River (MT) as a "fly-fishing destination" and an ideal location for riverfront vacation homes to resist a proposed dam. The expressed intention from interviewed participants was to fill the river valley with expensive vacation homes so as to discourage the Bureau of Reclamation from siting the dam via skewing the federal government's cost-benefit-analysis calculations when they considered the necessary regulatory takings. The plan worked. However, as the original advocates now admit, the discourse worked too well and the continued proliferation of homes along the river are damaging the ecological amenities that advocates sought to protect.

Many identify with the free-flowing river for the challenges, risks, and opportunities it creates for play. Many are see their riverfront property as more prestigious because of its unique status as undammed. An untamed 'Old West' like the Yellowstone River William Clark floated to meet Meriwether Lewis in 1806.....

Discussion

Each representation makes sense of historical conditions and events, addresses resource access rights, and renders complex conflicting relations simple. As is often the case in complex human-ecological relations, the situation is neatly boiled down into rote and simplistic reductions to partisan explanations often reinforcing divisive narratives of 'in' and 'out' groups (van den Belt 2004). The saliency of these two representations and the habitual way that adherents of each comfortably slide into each identity camp obscures the inherent points of commonality. The impact of these

polemical interpretative frames further complicates the problem by stalling discussion often resulting in negative consequences for the natural places as well as the overall quality of life for residents. Yet these storied constructions of natural and social places have appeal because it appeases, reconciles, and unites one story against the other.

How place representations enter public discourse is an important refocus onto the influence of discursive constructions rather than the influence of the constructors of such representations. Where people are unpredictably invested and sensitive agents, discourse is better suited for reframing and critique.

The purpose of this paper is not merely to deconstruct the representations of place. Instead we are using the above rhetorical analysis to begin to leverage the invention a new way of seeing for managers and stakeholders (Ivie 2001). Because place is socially constructed, place can socially re-constructed in a way that disbands the local partisanism in resource conflicts. In the next development of this paper, we ask how the representation of "productivity" can be expanded to include notions valuable to recreational and aesthetic interests. In what ways, does the "free-flowing" characterization share in features of the productive representations' identity? In what ways could both representations be enlarged to acknowledge the ecology of the riparian area within their constructions of the river? Finally, how can managers use existing representations to invent amicable constructions that bridge dominant existing representations of resource places and promote new ways of seeing place?...

Table 1. Summary of Yellowstone River Cultural Inventory Participants by Geographic Segment

	GEO SEG I: Missouri River to Powder River	GEO SEG II: Powder River to	GEO SEG III: Big Horn River to	GEO SEG IV: Laurel to Springdale	GEO SEG V: Springdale to Gardiner	TOTAL IN GROUP
		Big Horn River	Laurel			
AGRICULTURAL	22	22	16	12	14	86
CIVIC	14	14	18	14	8	68
RECREATIONAL	15	16	16	13	16	76
RESIDENTIAL	15	11	16	15	19	76
GEOGRAPHIC SEGMENT TOTAL	66	63	66	54	57	
NATIVE						7
AMERICAN						
PROJECT TOTAL						313

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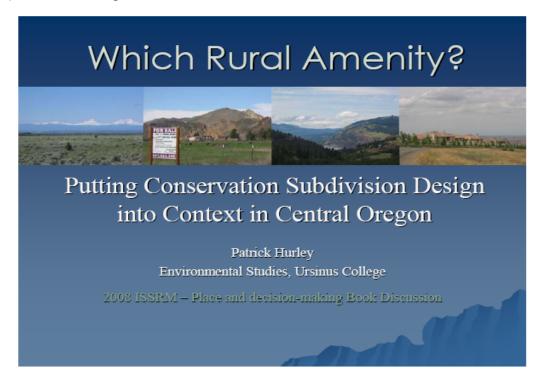
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WHICH RURAL AMENITY: PUTTING CONSERVATION SUBDIVISION DESIGN INTO CONTEXT IN CENTRAL OREGON

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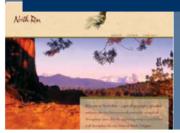


"Conservation subdivision design" (CSD) has emerged as an alternative model for land development in urban and rural areas. First, this development alternative is believed to reduce the impacts of sprawl—whether in its suburban or rural forms—on sensitive environmental resources (e.g., biodiversity, natural habitats, wetlands, riparian areas) and natural resources (e.g., agricultural land, timberlands, grazing lands) and to contribute to achieving wider conservation goals and protecting natural amenities in developing areas. Second, is not solely a phenomenon in urban places, but is also used in rural areas. It represents an alternative to both lower-density residential development that fragments productive rural resource lands and conventional suburban-style developments that result in the conversion of open space in urban areas and productive lands on the fringes of expanding urban areas (Arendt 1996, 2004; Austin and Kaplan 2003). Thus, CSD is both a potential product of, and contributor to, the blurring of rural-urban distinctions. Third, CSD often means that local communities, either on their own or in conjunction with local not-forprofit organizations (e.g., land trusts), will manage protected resources within their borders and advocates of this model sometimes imply that it will increase support for conservation. For example, research by Kaplan and Austin (2004: 236) from Michigan indicates that residents of these developments are more likely to support forest, wetlands, or open meadow conservation because these areas are seen as "integral, community owned parts of the overall development." Yet few studies have sought to understand conservation subdivision in context, tracing the relationship of specific projects to particular patterns of amenity migration and exurbanization, the divergent design components that make it into particular designs, or the interrelationship of these for governance mechanisms and the onthe ground environmental management.

Research Question

How are principles of Conservation Subdivision Design and particular articulations of place within this design contributing to the transformation of amenity landscapes in the American West?

- To what extent is CSD used within residential development projects in Central Oregon?
- How do CSD projects rely on particular place-based landscape qualities?
- How do these projects relate to county land-use policy?
- How do these projects reconfigure environmental decisionmaking within these spaces?



In the spirit of work by Bjelland and co-authors (2006) on "the production of suburban alternatives," this paper seeks to explore how newly developed spaces come to be and the role that developers, place-based qualities, and concern about conservation play in creating particular alternatives to both broader exurban and suburban patterns of growth. To achieve their land conservation goals, CSD projects ideally feature at least five specific design elements, altering the layout of lots (pattern of development) to avoid areas that are deemed to have conservation value, without reducing the overall number of the lots; limiting lots sizes and, often but not always, clustering lots together to increase 'open space' and to conserving portions of the site as "recreational amenities," "working landscapes" and/or "natural areas"; ensuring conserved areas cannot be further developed, by using such instruments as deed restrictions or preferably working with a local land trust to place a conservation easement on the open space; and encouraging ecologically appropriate interactions by residents with these areas through governance mechanisms, such as design guidelines or Covenants, Conditions, and Restrictions (CC&Rs)(see e.g., Arendt 1996, Theobald et al. 1997). Thus, I examine the types of natural amenities and conservation spaces that have been incorporated within "subdivisions" in the Eastside Cascades of Oregon, the design elements and broad governance structures that seek to manage these amenities or spaces, and the ways these emerging conservation landscapes relate to amenity migration patterns in the two counties.



Amenity Migration & American West Rural Landscape Transformations

Trends

- Amenity migration, "a distinct pattern of human migration characterized by the seasonal or permanent movement of largely affluent urban or suburban populations to scenic/nature-rich and/or culturally-rich [formerly] rural areas" increasingly transforming American West (Gosnell & Abrams Forthcoming, Travis 2006)
- Important factor explaining differences in growth among American West counties (e.g., Vias & Carruthers 2005, Nelson 2006)
- Differences in growth among counties with different land management agencies (Frentz et al. 2004), with residential development increasingly common feature near public lands (see e.g., Brogden and Greenberg 2004)
- Leading to communities within communities (Halseth 1993)
- Factor explaining changing land management strategies and choices (Gosnett et al. 2006)

Concerns

- Low-density "rural sprawl" results → dominant land-use pattern (Theobald 2005, Brown et al. 2005)
- Disappearance of natural resources associated with extractive economies (timber, ranching, mining; see e.g., Brown et al. 2005)
- Associated ecological changes leading to declines in biodiversity (e.g., Brown et al. 2005)

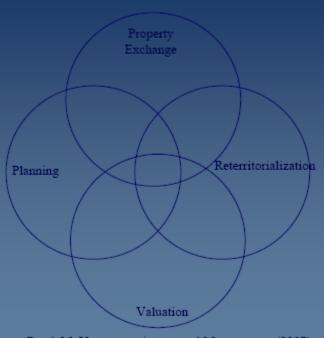
I situate my work within the broader literatures on amenity-migration (see e.g., Shumway and Otterstrom 2001, Smutny 2002, Nelson 2006, Moss 2006) and draw insights on ecological concerns from the closely related literature exurbanization in the American West (see e.g., Duane 1999, Walker and Fortmann 2003).



Political ecology and Place

- Explores the social-political complexity of changing human-environment interactions, by combining "the concerns of ecology with a broadly defined political economy" to emphasize role of power in producing and defining environmental change (Peet and Watts 2004, Robbins 2003)
- Place meanings result in expectations of appropriate behavior and determine legitimacy of everyday practices in environmental conflicts (see e.g., Peet and Watts 2004)
- Proliferation of new environmental management schemes, including a pervasive use of land-use zones and associated practices that "contain in space" the practices of humans (Zimmerer 2000, 2006)
- Neoliberal/economic restructuring important driver in both environmental change and the creation of new environmental management schemes (see e.g., Heynen et al 2006)
- ◆ Recent comparative work from Canada, still rather uncommon within political ecology, has attempted to explain uneven environmental management → intersection of regional environments, regional economies, cultural change and continuity within particular places, and forms of governance and institutional capacity (Reed 2007)
- Conflicts over new ideas about environmental governance, including within planning for private land and on appropriate uses of public lands, common among areas experiencing amenity migration (Hurley and Walker 2004, Brogden and Greenberg 2004, Robbins 2006)
- Walker and Fortmann (2003) identify landscape qualities as central to conflicts among the competing rural capitalisms in Nevada County, CA, an area experiencing amenity migration and the attendant rural sprawl that is seen as characteristic of recent trends in the American West.

Conceptual approach



Reed, M. Uneven environmental Management (2007)

- Reed (2007) identifies the overlapping center as the space of changing environmental governance and associated decisionmaking
- But we can also use this to better understand how particular place-based (landscape) qualities are captured (valued) as amenities residential development projects



Growth and development trends in Oregon's amenity-rich Cascades

While Deschutes and Wasco counties share many important natural amenities associated with communities experience rapid growth, the two counties' experiences with development are quite different. Both lie on the eastern slopes of the Cascade Mountains, and include significant stretches of the Deschutes River, a significant tributary to the Columbia River that is renowned for its fly-fishing (Deschutes River Conservancy 2007). Importantly, Deschutes County scores slightly higher on the USDA's natural amenity index (McGranahan 1999).[1] The rate of growth in the county appears to reflect this; Deschutes County is home to the City of Bend, Oregon's fastest growing metropolitan area over the past seven years and one of the fastest growing metropolitan areas in the U.S. (U.S. Census Bureau 2007a). Bend's tremendous growth has been fueled, in large part, by its close proximity to the Mt. Bachelor ski area[2] and an abundance of sunny days (McGranahan 1999). In contrast, Wasco County also lies on the eastern flanks of Mt. Hood, but has considerably fewer hours of sunlight than Deschutes. Perhaps more importantly, Wasco County's major metropolitan area, The Dalles, and its outlying rural exception areas largely have been overshadowed by rapid amenity-related growth in, and around, the towns of Hood River and White Salmon (Washington), which sit across the Columbia River from one another and have been a revered site of windsurfers the world round. [3] Thus, the county has seen much lower population growth (U.S. Census Bureau 2007b) and a, to date, a smaller influx of retirees and second home buyers. [4] [5] Only recently has the northern part of the county begun to see the type of property acquisition that is characteristic of neighboring Hood River and Klickitat counties (Hood River and White Salmon respectively) [6] Its growth and level of development has yet to approach anything like that experienced by Deschutes County. [7], [8]

At the same time, Deschutes and Wasco counties' land-use change histories share important similarities, even if the scope of these changes is not directly comparable. In many ways, the emergence of the Oregon land-use planning system was a response to rapid partitioning of rural parcels in the southwestern portion of the Deschutes County (CITE).[9] By the time the state had created the planning system, a large degree of rural subdivision had occurred, a fact that the system recognized through the creation of the so-called "rural exception areas" [10],[11]. In the years it would take Deschutes County to finalize a county-wide planning document, five-acre parcelization would come to dominate many rural parts of the county, both because five-acre minimums became the preferred mechanism to stop parcelization in the meantime and given the early demand to create parcels for later sale and/or development. [12] Similarly, portions of northern Wasco County experienced pre-1973 parcelization and land speculation. [13], [14] albeit to a much lesser extent than in Deschutes. It is within these geographic and historical contexts that much rural land development in both Deschutes and Wasco has taken place.

As Deschutes County's (Bend's) growth has continued to skyrocket, there has been growing concern over the ability of agricultural and timber land-owners to maintain economically viable operations. Likewise, conservation groups, such as the Deschutes Basin Land Trust and the Deschutes River Conservancy, among other statewide and national groups have expressed the need to expand efforts to: protect critical wildlife and natural habitat characteristic of high desert terrestrial habitats (e.g., sagebrush steppe, native grasslands, and Ponderosa pine forests); increase instream flows for fish in the Deschutes River and its tributaries; and to retain working forests and farms in the region (ODF 2006a, 2006b).[15] And although growth has been much less pervasive in Wasco County, the county's northern areas are home to limited-range habitats and tremendous wildflower diversity, within which much of the early rural parcelization took place.[16] Thus, concerns about the impacts of rural sprawl on Oregon white oak-Ponderosa pine woodlands have been focal points of discussion when it comes to the area's conservation and environmental management (OBP 1998; ODF 2006a;).[17],[18] Increasingly, too, the some residents are even worried about the implications rural residential growth might have for the northern county's cherry growers.[19]

[1] The USDA natural amenity index measures variables associated with an area's climate, topographic diversity, and the presence of public lands. For a fuller description, see McGranahan (1999)., [2] Interview A, Bend, OR 6-12-2006, [3] Interview B, Mosier, OR 5-31-2006, [4] Interview B, Dotty DeVaney, Mosier, OR 5-31-2006, [5] Interview C, The Dalles, OR 5-31-2006, [6] Interview B, Mosier, OR 5-31-2006, [7] Interview C, The Dalles, OR 5-31-2006, [10] Interview A, Bend, OR 6-12-2006, [10] Interview A, Bend, OR 6-12-06, [11] Interview B, Mosier, OR 5-31-06, [12] Interview B, Mosier, OR 5-31-06, [13] Interview B, Mosier, OR 5-31-06, [14] Interview B, Mosier, OR 5-31-06, [15] Interview B, Mosier, OR 5-31-06, [16] Interview B, Mosier, OR 5-31-06, [17] Interview E, Hood River, OR, 6-15-06, [18] Interview F, Vancouver, WA 5-30-06, [19] Interview G, Mosier, OR, 6-8-06

Site Selection & Methods • Looked for Planned Unit Developments (PUDs) or residential projects/subdivisions → significant open space, land conservation features, or that actively featured the project's conservation activities in their marketing • Considered projects both within and outside of Urban Growth Boundaries/Spheres of Influence • In-depth interviews with: - project developers, - county planners, - NGO personnel, and - residents • Document analysis: planning documents, marketing, CC&Rs

Study sites within the two counties were selected using two criteria. First, potential sites were identified through discussions with county land-use planners, local land trust personnel, developers who indicated other candidate projects, and using internet real estate searches. Because very few communities describe themselves using the "conservation subdivision" moniker, I asked key informants whether there were any Planned Unit Developments[1] or residential communities/subdivisions in the county, which included either significant open space conservation features or that actively featured the project's conservation activities in their marketing. Importantly, I eliminated so-called "resort developments" from consideration, largely given the different planning criteria that are used to evaluate these projects and significant differences in property ownership and visitor use. Second, I attempted to find communities both within and outside of Urban Growth Boundaries. I also wanted to identify potential projects on the rural-urban fringe and capture potential differences in project design as one moves away from existing urban areas. Indeed, one prominent feature of conservation subdivision design, according to some critics (see e.g., Daniels 1997, McCallister 1999), is the fact that this design approach unnecessarily brings the urban into rural areas (Hurley, unpublished manuscript). Mirroring this perspective, as Bjelland et al (2006) discovered, some urban jurisdictions see CSD as a potentially inappropriate policy because it promotes inefficient rural densities within an expanding urban area.

Once potential cases were identified, I reviewed project proposal documents, county planning documents associated with each case, marketing materials (i.e. real estate brochures and websites), and the governance documents for each of the communities that had these materials. I created an inventory of their design features, conservation goals and features, and governance features as they related to conservation and environmental management goals. Likewise, I interviewed current and former planning officials, project investors/developers, representatives from conservation organizations in the communities where the projects were proposed, including from organizations oppose to particular projects (where appropriate) and from organizations associated with design features (i.e. land trusts holding an easement). In general, I was interested in understanding the ways in which various actors talked about specific projects and the role of place, their design features, relationship to local development trends, and their role in addressing particular conservation issues in the area. In addition, I provide the results from a rather simple adjacency/proximity analysis of the relationship of projects to "protected lands," using public lands and significant properties located nearby that have conservation easements on them, as a surrogate.

[1] Planned Unit Development refers to a type of project that often deviates from common land-use patterns and is the mechanism through which many CSD projects have been proposed elsewhere (Bjelland et al. 2006)

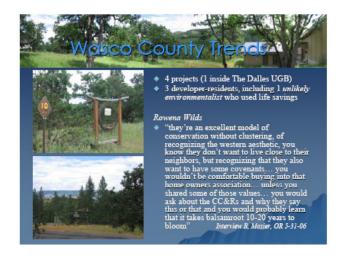


Designing, Consuming, and Governing Subdivided Nature

Conservation subdivision design is not a widespread phenomenon in the case study areas, [1] although usage of its elements is significant among subdivisions proposed within Wasco County over the past decade. [2] However, I identified nine projects that incorporated various elements associated with this approach to land development (Figure 1, Table 1). [3], [4] It is important to note at the outset, however, that these projects are at differing states of the development process: ranging from built out to construction in progress. In a couple of cases, lots are still being sold or held for future home construction by their current owners. Yet, some interesting inferences about the state of conservation development within these areas can be made. Looking at these projects, both counties have seen the construction of projects that employ elements of CSD, even if these design features are not in widespread usage. Examples were found both inside and outside of UGBs (Table 1). Deschutes County has a greater number of these development projects, and not surprisingly given the higher rates of growth, these projects are quite a bit larger.

Whether in Wasco or Deschutes counties, each project is designed to attract buyers with communities comprised of single-family homes. It's also clear, from the interviews with both planners and developers in the two counties, that the Deschutes projects differ rather dramatically in terms of price, even when one takes into account overall differences in the price spread of the two areas. [5], [6] While most of the projects had been designed and built within the past two decades, one project in Wasco County had been undertaken in the 1970s by the developer as way to create his own retirement community. [7], [8], [9] In fact, the relationship between development projects and the ability of individual developers to literally create the type of community where they wanted to live (or retire) was a recurrent theme. Of the nine projects, six of the communities are also home (or were home) to the individuals who helped design and implement them. When commenting on this relationship, one former county planner even suggested that "we wouldn't need land-use planners if every developer lived in the developments they did." [10] This planner went on to discuss how when a "landowner comes in and buys and wants to create the community that they're going to retire in, they're already looking to do all the things that we try to do by ordinance and they wind up doing it through HOA, and covenants, and lease back options, and you know, all these other tools that we can't really regulate very readily..." [11]

[1] Interview K, Phone interview, 9-8-06, [2] Interview B, Mosier, OR 5-31-06, [3] Interview A, Bend, OR 6-12-2006, [4] Interview B, Mosier, OR 5-31-06, [5] Interview A, Bend, OR 6-12-2006, [6] Interview C, The Dalles, OR 5-31-2006, [7] Interview A, Bend, OR 6-12-06, [8] Interview C, The Dalles, OR 5-31-2006, [9] Interview L, The Dalles, OR 6-14-2006, [10] Interview B, Mosier, OR 5-31-06, [11] Interview B, Mosier, OR 5-31-06



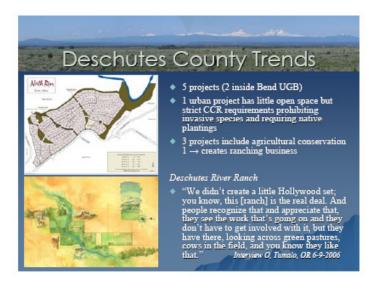
Two projects within the case study stand out for the interesting ways they highlight links between amenity-migration, the use of conservation design elements, and the importance of place. First, Rowena Wilds highlights the tensions between amenity-migrants who are concerned about development and its impacts, but only reluctantly take the personal risk to develop something differently. Second, Deschutes River Ranch highlights the ability of local residents with some investment capital and a bit of experience to create a project that creates both a space of conservation and a potential agricultural business. Both, however, reinforce the extent to which place-based qualities are mobilized by these developers to create residential spaces that are appealing to amenity migrants, but in ways that suggest differing approaches to site-based environmental decision-making.

Rowena Wilds is very much the product of one person's desire to ensure that a special part of northern Wasco County's oak-pine woodlands was not "destroyed' by the 21 homesites and equestrian center development project approach that had been proposed twice for this part of Wasco County. Having learned the lesson that "developers are the enemy" at an early age, this individual purchased the property by leveraging his life savings. Despite declaring his intentions to create a conservation-oriented project, this individual found himself facing the opposition of a local conservation groups to his efforts (Dancer 2007). And even though Rowena Wilds does not employ the full complement of CSD elements, a former Wasco County planner observed that:

they're an excellent model of conservation without clustering, of recognizing the western aesthetic, you know they don't want to live close to their neighbors, but recognizing that they also want to have some covenants that make sure that they feel like they're doing the right thing while they live apart from one another, and... they've wound up doing a lot of the right things: maintaining a core of open area, limiting the disturbance to a site by any home, any one home, making sure that there are some fire protection practices in place... you wouldn't be comfortable buying into that home owners association, buying property and becoming a member of that home owners association, unless you shared some of those values... you would ask about the CC&Rs and why they say this or that and you would probably learn that it takes balsamroot 10-20 years to bloom and that what you look at when it does bloom is an old growth wildflower stand... So they built that culture and I think they've captured that [kind of ecological awareness]...[1]

Indeed, from this person's perspective Rowena Wilds represents a successful model of conservation, precisely because its governance emphasizes growing a community of folks committed to the environment.

[1] Interview B, Mosier, OR 5-31-06



Deschutes River Ranch, by contrast, employs conservation subdivision design in its totality, yet constructs a space where agricultural production and landscape consumption are the emphasis. Like Rowena, Deschutes River Ranch is the product of local amenity migrants, one from within the state and one from the East, seeking to create something different from the usual exurban approach so common to the "new West." Instead of creating a set of ranchettes on already parcelized land, this project pursued the removal of existing homes and reconfigured both the new home sites and water delivery to the open space to maximize the ability of the land to produce fodder for grazing cattle and horses.[1] As one of the project's developers described it:

•"We didn't create a little Hollywood set; you know, this [ranch] is the real deal. And people recognize that and appreciate that, they see the work that's going on and they don't have to get involved with it, but they have there, looking across green pastures, cows in the field, and you know they like that."[2]

The result is a landscape people can consume *and* a net increase in agriculture for the area, given the previous landowners' management goals. Residents also have access to the river for fishing and to trails both within the community and on significant BLM land adjacent to the site.[3]

- [1] Interview N, Bend, OR 6-12-2006, [2] Interview O, Tumalo, OR 6-9-2006
- [3] Interview A, Bend, OR 6-12-2006

Conclusions

▶ [s]ubdivision is a very dangerous concept... [T]he term subdivision risks loading the discourse that oh, they're gonna put subdivisions on farmland and that kind of thing, a conservation subdivision, we call this a preservation ranch, and that's much more to me, we're preserving the ranch by putting occasional residents on ranch, non-farm properties... I understand the language in the literature may refer to conservation subdivisions, but there are many things going on here in terms of very green development and open space development and environmentally sensitive development that are definitely not subdivisions in any legal or general public understanding sense. I'm a little sensitive to the word subdivision."

Given the emphasis that developers put on place, recognizing the uneasy relationship between subdivision and conservation is an important point that bears additional consideration. Indeed, several interviewees expressed discomfort with the term "conservation subdivision design," both because they could not bring themselves to describe particular projects as truly representative of the approach and perhaps more significantly, as one respondent in Oregon who expressed concern with the terminology put it:

•[s]ubdivision is a very dangerous concept... [T]he term subdivision risks loading the discourse that oh, they're gonna put subdivisions on farmland and that kind of thing, a conservation subdivision, we call this a preservation ranch, and that's much more to me, we're preserving the ranch by putting occasional residents on ranch, non-farm properties... I understand the language in the literature may refer to conservation subdivisions, but there are many things going on here in terms of very green development and open space development and environmentally sensitive development that are definitely *not* subdivisions in any legal or kind of general public understanding sense. I'm a little sensitive to the word subdivision."[1]

On the one hand, this discursive jolt is understandable, given the extent to which many of these projects represent dramatically different trajectories of land development when compared to wider land-use patterns in the two counties (particularly within Deschutes). Indeed, developing alternatives to exurban and suburban land-use patterns faces significant political issues, not just in the terms of broad resistance to particular projects *per se*, but in terms of the discursive terrain these spaces must negotiate. On the other hand, however, this quote suggests the very ways in which place-based decisionmaking must reframe discussions about development, by pointing out both the discursive barriers that policy frameworks represent and new ideas about what might be considered more proper relationships between nature and conservation.

[1] Interview R, Phone Interview, 2-27-2007

Conclusions

- These projects suggest that particular place qualities are being drawn upon to create new residential spaces that transform these particular qualities into amenities that are appealing to migrants and new home-buyers.
- "Traditional" or historic economic and cultural activities associated with particular places, such as ranching, may be central features of this transformative process.
- In many cases, project investors and developers are amenity migrants themselves, whose ideas about place and environmental governance infuse these new spaces
- In creating these new residential and amenity-based spaces, developers are reconfiguring the relationship of rural landscape attributes, the ownership of these attributes, and the decision-making mechanisms that will determine how these are managed.
- Quite literally, amenity migrants are putting new communities and governance mechanism into place, through the creation of new residential spaces that celebrate particular landscape qualities and associated human activities.



PLACE-BASED PLANNING, PUBLIC PARTICIPATION AND SOCIAL ASSESSMENT IN NATURAL RESOURCE PLANNING AND DECISION-MAKING

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Introduction

Place-based planning has been used to refer to land and natural resource management efforts to connect diverse human values, uses, experiences, and activities to specific geographic locations. Although most planning efforts focus on specific places through land use zoning frameworks, the place-based planning activities being implemented today are different from other approaches. For example, whereas land use zoning segregates dominant uses from one another on the landscape, place-based planning takes a more holistic approach, focusing on identifying not only current uses but also values and meanings held by those who use and care about the place being studied. In addition, place-based approaches tend to take a longitudinal perspective, exploring desired future conditions for the landscape. This approach enables participants to identify a variety of uses that might occur concurrently rather than designating one primary use for the upcoming 10 to 20 years.

To achieve these ends land managers are using a variety of processes, activities, and forums to identify and spatially depict how people value and use landscapes. While there are many innovative approaches, however, there is little consistency and application is uneven with little verification or replication of approaches. In addition little has been done in the way of summary and synthesis or critique of these approaches (Farnum and Kruger 2008). Often the purpose is vague and the relationship between research, planning, public involvement and social assessment is often unclear.

In this chapter we review some examples of place-based planning approaches. We then explore the purpose, objectives and role of these processes and what was accomplished and attempt to unravel the relationship between these activities, public participation and social assessment through a secondary analysis of four case studies. We suggest that under-funded agencies are often attempting to accomplish multiple objectives with new, relatively untested techniques. We see an opportunity to incorporate research as a component of these activities. While the efforts are ambitious and creative often data quality and usefulness are questionable, and frequently results are not used. Finally, we suggest additional research that could be accomplished—in partnership with land managers—to provide better rationale and guidance for use of place methods, for critical evaluation of applications, and standardization of methods.

Why experimentation with new approaches?

Traditional planning and decision frameworks often focus on market-based social values and discounted and disregarded symbolic and emotional values and meanings held by people who care about places. Often only those things that you could count counted. Ensuing controversies often stymied plan implementation and divided communities. Many in management positions now recognize that the values and

meanings people ascribe to places, the emotions, experiences, benefits and satisfaction people derive from activities that take place in particular places need to carry weight in decisionmaking. Managers are becoming more sensitive to this need and to the desire of those who care about places to play an active role in decisions about their management.

Petrich (1984:67) suggested that the most important aspect of the "specialness" of places is a holistic character that involves past experience and social and cultural meanings identified with the place such that the place "elicits an appreciation and attachment beyond the observable features of the landscape." Thus, to know or understand place requires us to look at place from a perspective that encompasses and can illuminate meaning and action. Meanings are expressed through enactment and engagement which are social activities. Rather than as a static location, setting, or landscape, in order to access meanings we must conceive of place as a cultural system, much in the same way Geertz (1973) conceived of religion as a cultural system. Conceiving of place in this way may provide an opportunity to integrate multiple perspectives, grounded in lived experience, into a whole that better represents the real world (Kruger 1996).

Planning in itself is a place-making process

Participatory place-based planning processes incorporate people and place relationships, processes, experiences, and everyday first hand knowledge from lived experience. These planning processes, by their nature are democratizing. Place-based planning has been described as "... an effort to create a more equitable, democratic way of defining, expressing, and valuing places" (Cheng, Kruger, and Daniels 2003). Place-based processes may lead to more constructive dialogue by paying attention to both shared and contested meanings. "Knowledge of places having high value to humans as well as an understanding of the significant meanings and images that places have to individuals . . . should allow planners, managers, and decisionmakers to [develop management guidelines] that will maintain the salient characteristics of those places" (Galliano and Loeffler 1999).

It has been suggested that place-based planning is an opportunity to: build and empower community, engage the community in inventory activities, build relationships and trust, engage in mutual learning, explain policies and rationale, surface and mitigate conflict, plan holistically, and incorporate meanings into planning (Kruger 2008). However, there is little research that demonstrates how successful these innovative processes are at achieving these goals.

Public participation, social assessment and place-based planning

The primary ways that social science information enters in planning and decision processes of natural resource agencies is through social assessment and public involvement (Endter Wada et al. 1998). But these activities actually represent a myriad of planning and participatory processes and data collection needs, which are context and issue dependent (Blahna and Yonts Shepard 1989, Bryan 1996, Burdge, 2003). One of the great utilities of place-based planning is that it can meet some of the data and

process needs of both public involvement and social assessment. But, these two activities have distinct, if overlapping, process and data requirements; it is critical that those purposes are understood and considered in the place-based planning activities (Endter Wada et al. 1998). In practice, however, the distinction is often hazy or ignored, or the activities of public involvement and social assessment are kept separate, so the use of resulting data is unnecessarily limited.

For resource agencies, then, it is critical that the role and purpose of place-based planning is clearly identified related to public involvement or social assessment goals, and the data collection and processes used need to address these goals. Research needs to develop and test methods that serve the individual and overlapping purposes of social assessment and public involvement. This paper will review several case studies and compare the data collection processes, data, and outputs related to social assessment and public involvement purposes and processes.

Social assessment

Social assessment is a tool to identify current social conditions and enable analysis of how people will affect and be affected by a proposed project or change. Social assessment entails the systematic collection, organization and analysis of social data to inform natural resource decision-making (Lane, Dale, and Taylor 2001). The social assessment process involves identification of all affected stakeholders, analysis of social conditions, prioritization of social issues and establishment of an appropriate process to represent the interests of stakeholders (Reitberger-McCracken and Narayan 1998, Bryan 1996). Inclusion of a social assessment process assures that projects are informed by relevant social issues and context and that a wide spectrum of interests is incorporated. A social assessment will explore demographic features, socioeconomic variables, social organization, sociopolitical context, needs and values, and institutions (Reitberger-McCracken and Narayan 1998, Bryan 1996, Burdge 2003).

Social assessment can be carried out by an individual scientist or a team using multiple research methods tailored to the systematic and representative sampling needs of each context. This may be accomplished through stakeholder workshops or field visits, and may be accomplished using participatory action research or other collaborative tools. With a focus on learning, social interaction, and opportunities to identify and work through problems, public engagement in social assessment can contribute to both broader understanding and more effective decision-making and implementation of decisions (Krannich et al. 1994). However, these methods more typically represent the goals of democratic, participatory methods of public involvement. Social assessment requires clearly illustrating that participatory methods meet the systematic, representative sampling needs of social assessment.

Public involvement and citizen participation

Public involvement was originally mandated by the Administrative Procedures Act of 1946 as a requirement for public disclosure and feedback related to federal agency plans or management decisions. In recent years, the purpose of public involvement has grown dramatically to include interactive and participatory methods of public

involvement, and even collaborative approaches where decision-making is shared among agencies and public stakeholders (Walker and Daniels 1996, Beierle 1999, Burroughs 1999).

But the primary purpose of public involvement and more open collaborative citizen participation processes remains the same; to democratize decision-making by directly engaging members of the public in decision-making processes. Goals include affording all affected parties an opportunity to learn about a proposed activity, pose questions and exchange ideas with others in order to produce better plans having a higher likelihood of implementation. A variety of methods are available from which to choose an approach best suited for a particular situation. While social assessment and public participation may both use participatory methods, the public disclosure/feedback purpose of public involvement is distinctly different from social assessment requirement for more systematic and representative data.

Participatory processes enable citizens to contribute to decisions about environmental issues and natural resource management that affect their own interests. Unfortunately, studies show that in public resource management, forums for participation are not being provided as often as they could be (Krannich et al. 1994; Kusel and Fortmann 1990; Shannon 1991a,b). Therefore, applied studies are needed to help identify specific opportunities, appropriate circumstances, and useful methods for increasing levels of citizen engagement. Literature and research on civic engagement, civic science, and social learning form a solid foundation from which to begin such an effort.

The interface of public participation, social assessment and place-based planning

Due to the plethora of methods and processes now being used for both social assessment and public involvement, the lines between these two activities have become blurred in both practice and research (Blahna and Yonts Shepard 1989, Endter Wada et al. 1998). While some data can be used for both activities, the basic purpose and process needs are distinctly different. In general, data resulting from public involvement activities can supplement social assessment data but not replace them, and vice versa.

Both process and data requirements need to be clearly identified for the specific purpose and context of the planning or decision-making activity in which place-based planning is being used (Endter Wada et al. 1998). If the data are meant to serve a social assessment function, the data need to be collected systematically and, to the extent possible, represent all affected stakeholders. If the data are primarily used for public involvement purposes, then group process and participatory methods are critical process activities, but the data are unlikely to represent all interests, and multiple methods must be used. In practice, however, these goals and resulting data limitations are often confused or not clearly articulated. When both functions are the goal, planning processes need to clearly distinguish how and where the representativeness goal of social assessment and the democratizing goals of public involvement are being met.

If place-based planning is being used to meet both assessment and involvement goals, the integration of the processes used for collecting the data is critical. Planners and

public involvement specialists need to be working together in designing the methods used to collect place data. This integration of purpose and method needs to be done in the early stages of the planning or decision making process. Too often, agencies implement methods social assessment and public involvement methods separate from each other, and without clear purpose that can help planners design appropriate methods (Endter Wada et al. 1998).

Case study analysis

Research is needed to help provide a framework and methods for identifying which process and data needs are being met in place-based planning. The specific criteria we will use to evaluate four place-based case studies are shown in Table 1.

Table 1. Case study evaluation criteria (DRAFT)

	PROCESS	DATA		
	Systematic stakeholder identification, description	Purpose clearly identified		
SOCIAL ASSESSMENT	Multiple approaches tailored to different stakeholders	Represents all affected interests		
	Systematic, representative sampling included	Multiple, overlapping place meanings identified by landscape		
	Relevant data scale and mapping comparable to other data types	Analysis of all interests by decision or plan alternative		
		Strengths and weaknesses identified		
PUBLIC	Key interests identified, included	Purpose, use, scale clearly identified		
INVOLVEMENT	Multiple methods based on interactive, participatory methods	Represents key stakeholder groups		
		Data relevant to specific project issues and context		
вотн	Both process sets above clearly identified and linked to purpose	Data types clearly linked to both SA and PI purpose, issues		
	Meet both sets of criteria above	Meet both sets of criteria above		
	Processes strengths, weaknesses for both SA and PI identified	Data strengths, weaknesses for both SA and PI identified		

Summary of examples/ highlights from Farnum and Kruger 2008.....

This section will provide examples and an overview of the place-based planning activities documented by Farnum and Kruger (2008). The purposes and objectives of

the activities and challenges met by planning teams will be discussed as they related to planning goals and meeting public involvement and social assessment goals/criteria. Methods, data quality, relevance and usefulness will be assessed.

Discussion and Research needs

The case study review results will be discussed in terms of the strengths and weaknesses of the reviewed cases to meet planning, public involvement, and social assessment needs. It will be difficult to generalize from the small set of cases, so this section will focus on general research needs related to place based planning, and the use of place based planning results in decision-making. Some examples include:

Tools, processes, frameworks for accessing, assessing, inventorying and monitoring meanings, validating their use, and incorporating meanings into planning and management processes at a variety of scales are needed. Also, summaries, syntheses, and critiques of processes and approaches being implemented on the ground are needed.

Rationale for use of place-based methods, critical-evaluative methods and validity research, and standardized methods are needed.

A framework for integrating place-based approaches, public involvement and social assessment is needed.

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ELICITING AND MAPPING FOREST VALUES: A CASE STUDY OF THE CANADIAN BOREAL FORESTS OF NORTH-WESTERN ONTARIO

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Introduction

Values have been the subject of theoretical consideration in many disciplines and areas of study including "education, political science, economics, anthropology, and theology, as well as psychology and sociology" (Rokeach, 1973). It has been argued that the importance of values in natural resource planning is that many natural resource conflicts are more about values than they are about facts (Yankelovich, 1991). This suggests that natural resource planning is mainly "an intrinsically political process involving community deliberation and struggle" (Lachapelle et al., 2003: p.475) over different value positions about specific places.

Place-based, value-centred approaches to natural resource planning have gained in popularity in recent years (McIntyre, Moore & Yuan, in press; Brown, 2005; Galliano & Loeffler, 1999; Mitchell, et al., 1993; Williams & Patterson, 1996; Williams & Stewart, 1998). In part, this has resulted from the increased adoption of community-based collaborative partnerships in forest management (Oglethorpe, 2002) which has emphasised the contextual nature of the planning of natural resource use. This latter realisation has instigated a move away from traditional 'one-suit-fit-all' planning models (e.g., ROS). Place-based planning is necessarily context focused and collaborative in that it recognizes that people develop strong bonds with the places they use for recreation and that they have a need to be involved in influencing the future direction of change in such places.

Although the theoretical importance of place values in natural resource planning has been recognised for some time, it is only recently that researchers have begun to struggle with ways of incorporating them into resource planning (e.g., Satterfield, 2001; Brown & Reed, 2000; McFarlane & Boxall, 1999). A number of issues have faced social scientists in this endeavour: a) How are place values conceptualised? b) How are place values to be elicited from users of natural resource areas? c) How are place values to be represented spatially? d) How are place values incorporated into natural resource planning? Building on earlier work in the boreal forests of north-western Ontario (McIntyre, et al, 2004), this chapter set out to address these questions through the use of a case study centred in the boreal forests of north-western Ontario, Canada.

a) How are place values conceptualised?

The work of Brown (1984) on values has provided a basis for a common understanding of the concept in natural resource management (More, Averill, & Stevens, 1996). He focused on a preference–related view of values which is useful in natural resource contexts in that much of the contestation surrounding recreational use centres on one

value (e.g., economic) being 'better' or more preferred than another (e.g., aesthetic). Brown distinguished two major types of values: held and assigned (p. 232). The former he defined as 'an enduring concept of the preferable which influences choice and action' (p.232) and the latter as 'the expressed relative importance or worth of an object to an individual or group in a given context' (Brown, 1984: 233).

The concept of 'held' forest values has been applied to study forests and forest ecosystems in the USA and elsewhere (e.g., Brown & Reed, 2000; Manning, Valliere, & Minteer, 1999; Commonwealth of Australia, 1998; Xu & Bengston, 1997). While such values may be appropriately applied to a particular forest (Manning et al., 1999: Green Mountains National Forest, Vermont) or forest system (Bengston & Xu, 1995: US National Forests), they would seem less suitable to examining values at the site or locality level. Assigned values, however, which encompass judgments on the relative valuation of objects, would seem particularly appropriate to mapping forest values, as this process involves making choices among particular sites or localities within a forest and attaching values to them (McIntyre, et al, 2004).

b) How are place values to be elicited from users of natural resource areas?

Kuentzel (2000) has argued that philosophical and theoretical differences about how people form values are at the root of the problem of incorporating values into the public participation process. In this regard, Kuentzel *et al.* (1997) have posited three dominant perspectives: social utility (Driver *et al.*, 1987; Bengston, 1994); social cohesiveness (Parsons, 1951); and social discourse or constructivist (Giddens, 1984).

We adopt a social constructivist perspective to value formation, recognizing that place values are 'constructed through the interaction of individuals and structures in a socio-institutional context in places – they have a 'geography' (Davies, 2003: 82). This conceptualisation suggests the need to employ interpretive methods to elicit context specific values. This contrasts with other recent research (e.g., Brown & Reed, 2000), which have used generic sets of values at the 'held' level to asses site evaluations.

A combination of focus groups and place mapping was used initially to derive a values scale for the boreal forest area of northern Canada. This values scale was included in a recreational survey of residents of Thunder Bay in north-western Ontario and visitors from the USA and other parts of Canada. The end result of this study was an abbreviated, contextualised 'place values' scale for the boreal forest.

c) How are place values to be represented spatially?

At a practical level, a major impediment to the integration of values data into planning processes has been the reluctance of social scientists to collect and represent these data spatially. Spatial representation of user values is especially crucial in giving voice to place-based meanings in light of the explosion in spatial representation of natural resource and econometric data through GIS computer-based technology. The growing emphasis on place-based, value-centered meanings urges social scientists involved in natural resource planning to think in spatial terms and in so doing, to facilitate the integration of personal place values data into the resource-based decision models used by forest planners (McIntyre, Moore & Yuan, in press).

Research involving the collection of spatial data through surveys has been restricted due to limitations of map size and hence scale. More recently, developments in GIS

technology enabling its use on the World Wide Web (WWW) have made it possible for lay professionals and the general public to input spatial data in a planning context (Kingston, et al., 2000; Ghose, 2001). This, so called, Public Participation GIS (PPGIS) has experienced rapid growth in the last 10 years. However, the potential of integrating GIS and the WWW is a relatively more recent innovation (Kingston, 2007).

The study reported in this chapter used a web-based GIS survey and a conventional paper-map survey to elicit and map the place values of residents who used the boreal forests along the north shore of Lake Superior in Canada. Using both a conventional and web-based survey allowed comparison between the two methods in terms of response rates and the quality of the data collected.

Arc GIS mapping and calculation of the density distribution of recreation places marked on the map of the study area by respondents enabled the recognition of High Use Areas (HUAs). These HUA's were discriminated on the basis of geographic characteristics, values, types of activities and season and frequency of use.

d) How are place values incorporated into natural resource planning?

The characteristics and spatial distribution of the HUA's indicate that residents' recreational range is largely defined by highways, forest roads and entrance points, which emphasises the importance of accessibility and highlights the centrality of forest production activity in providing roads and access points for recreation (Hunt et al., 2000). Four distinct place value clusters were recognised using the 399 nominated places. On this basis, the HUAs were classified into four groups differing in their spatial distribution, values attached to them, most common types of activities and seasonal patterns of use.

Although multiple use is a clear mandate of the Ontario Crown Forest Sustainability Act 1994 which stated that Crown Forests are to be managed "to meet social, economic and environmental needs of present and future generations", incorporating values other than harvesting, including recreation, proactively in forest planning has been difficult. The recognition and characterisation of these HUAs and the place values attached to them is a first step in acknowledging the importance of place meanings for local citizens. They are also essential prerequisites to incorporating place concepts into forest planning at an early stage in the process as, for example, special management zones similar to the increasing recognition afforded to heritage, conservation and wildlife areas in forest planning.

OUR PUBLIC LANDS, MY RED DESERT: PERSONAL EXPERIENCE AND PUBLIC PLACE-CREATION

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Individuals sense and value particular locations on a personal level, yet the fate of public lands must be debated and decided in the public sphere. As officials seek a way to include 'sense of place' in their land management policies, they need to find a way to integrate personal experience with the more readily-gauged dimensions of 'place' – material characteristics, sociocultural meanings, and social and political processes. This requires close examination of the processes contributing to 'place-creation,' recognizing personal sensation as a basis for public expression, debate, and decision-making (see Figure 1, adapted from Cheng et al. 2003).

Using perceptions of Wyoming's Red Desert as an example, this chapter seeks to unite seemingly disparate areas of geographic research: psychological / phenomenological studies of cognition and sociological / political studies of valuation. In doing so, it addresses the fundamental role individual experience and expression play in the generation of sociocultural meanings and political processes used to define and manage a place.

The RED DESERT

Citizens, interest groups, and Bureau of Land Management (BLM) representatives are currently engaged in an intense debate over the fate of the Red Desert, a seemingly desolate expanse that sprawls across south-central Wyoming. When BLM agents released a Draft Environmental Impact Statement (DEIS) assessing the feasibility of oil and gas development on the public lands, individuals and non-profit organizations launched a campaign for designation of a National Conservation Area. The variety of approved uses, based on the myriad interpretations of the desert's attributes, make for a rich case study of place-based land management.

Qualitative research methods, involving extensive review of professional documents and individual publications as well as open-ended interviews of interested officials and citizens, were used to explore dimensions of the Red Desert as a place (Bogdan and Bicklin 2002, Crotty 1998). The theme of 'personal experience' arose prominently from the collected data, threading through other elements and processes crucial to place-creation, including material characteristics, sociocultural meanings, and sociopolitical processes.

PERSONAL EXPERIENCE and MATERIAL CHARACTERISTICS

'Sense of place' describes quite literally how people first experience space. Space has material characteristics – attributes defining ground and sky, biota and built elements. The most fundamental way by which people interact with the world is through engagement of organs to directly see, smell, touch, taste, or feel substantial dimensions. While some researchers "neglect the role of the physical environment,

focusing on place meanings and attachment as products of shared behaviors and cultural processes" (Stedman 2003, p. 671), phenomenologists argue that a space's material characteristics inform and influence all further experience (Davenport and Anderson 2005, Brown and Toadvine 2003, Casey 1996, Bachelard 1994, Proshansky et al. 1983). "Places like the Red Desert are *real*" (Artist), and that reality grounds sensation.

Experience also takes place, again quite literally, on and to a more abstract plane – perception. As people mentally process their first-hand impressions, remembering their encounter with a golden eagle out in the remote corners, describing the vista from their front door, or "accumulating stories, out there on the range" (BCA, BLM Rw 2, paraphrased from Rancher, respectively), they layer memories and meanings on the landscape. Interpretation adds a human dimension – personalizing senses of place, – but simultaneously filters and even obfuscates impressions of a space's material characteristics. This dynamic – an inverse relationship between subjective interpretation and objective attributes – is constantly at play during place-creation as well as experience.

Cognition – interpretation based on preconceived beliefs – engages a yet deeper dimension. People "construct," "perceive," "experience and interpret" place by "endow[ing undifferentiated space] with value" (Williams and Stewart 1998, Cheng et al. 2003, Davenport and Anderson 2005, Stedman 2003, Tuan 1977, p. 6., respectively). But values vary highly from person to person (see Rolston and Coufal 1991 for a list of ten basic landscape values, supplemented by Brown and Reed 2000 and Cheng et al. 2003); just as individuals see slightly different shades of red and describe rusty or ruddy or burnt soils using slightly different words, experience of the Red Desert depends on and generates different feels for concepts such as 'wilderness,' 'aesthetics,' and 'economics.' People expect and/or desire places to reinforce deeply-held personal values.

The process of individual experience does not progress linearly from "direct and intimate" physical interaction to "indirect and conceptual" mental interpretation (Tuan 1977), but rather flows and loops. A person who seeks to "experience the thrill and enchantment of hiking...without another person or sound but that of the wind" (Wyoming Wilderness Association 2006) will hike far out into the Adobe Town badlands and a person who seeks nothing but a route between Rawlins and Rock Springs will speed down the Interstate-80 corridor. Individual sensation, perception, and cognition all overlap and interweave to create personal experience.

PERSONAL EXPERIENCE and SOCIOCULTURAL MEANINGS

Because public lands are owned and experienced by many individuals, their meanings and uses must also be defined and debated in a broader sociocultural realm. The ways by which shared perceptions of place can define social groups and perpetuate cultural beliefs have already been thoroughly explored (Davenport and Anderson 2005, Williams and Stewart 1998, Norton and Hannon 1997, Greider and Garkovich 1994), but the relationship between these elements and personal experience begs further consideration.

Sensation may appear to take place on a wholly unique, individual level, but shared descriptions and depictions of places allow for vicarious experience. Many people who have never been to the Red Desert are still able to form an idea of the place based on an article they read in a travel brochure or photograph they see on a website. Moreover, people who have only baked across the scrubby Basin or been blinded by a snowstorm are able to broaden and deepen their sense of place by exchanging impressions. Few people have had the opportunity to explore every inch of the Red Desert in every season; second-hand sensation can provide a powerful foundation and/or supplement for place-creation.

Descriptions and depictions have limitations, however. Repeatedly, people acknowledged that the Red Desert's reality is "hard to define. Because it's big big expanses" (BLM Rw 2). Because they have no taste or texture or dimension – no material characteristics, – "you can have great photos, but you really don't get the same sense of space and grandeur and scale" (BCA). As a writer or photographer tries to convey their sensations of place in words or images, the lenses of language and camera only strengthen the filters of personal perception. The process of expression, by which individuals share their personal experiences with others, includes elements of deliberate selection; although people may not consciously decide what they feel or remember about a space, they intentionally choose both the subject and form of expression.

Expression is also a form of *participation*, involving expectations for interpersonal exchange. An individual chooses to share their experience believing that another will choose to receive it, linking them in a network of shared understanding. Casper Star-Tribune articles and Wyoming Public Radio segments and BLM ElSs all expose audiences to the same words; Wyoming residents have been bombarded with messages about the Red Desert, thus provided with some common basis. But these expressions are never wholly objective – editors choose which articles to publish just as readily as environmental advocates choose what photographs to post and industry officials choose which figures to report. Moreover, individuals select what magazines they'll buy or websites they'll link to, in effect identifying themselves as members of a certain segment of society based on perceptions of place.

A desire for belonging, or place-based social identity, may be a force elsewhere (for further explanation, see Cheng et al. 2003, Kaltenborn and Williams 2002, Feld and Basso 1996), but in the Red Desert individuals focus on opportunities for solitary experiences – not group bonding – in remote regions where "you seldom encounter other people" (Sportsman). Instead, the message seems to be the impetus for participation in this case; "[attachment to] places can inspire people to take collective action" (Cheng et al. 2003, p. 93).

Societal groups such as Friends of the Red Desert (FRD) consist of individuals who have experienced the place independently, and want to continue to do so; participation in a place-based exchange is inspired and fueled by valuation and expectation. Stories, even those presented in first-person terms such as "When I first drove off the pavement into the Red Desert..." (Jones 2005) and "trudging across the Killpecker Dunes, I..." (Clifford 2002), are not simply presentations of perception, but expressions of cognition. Images of wild horses in the Jack Morrow Hills depict impressions of 'wilderness' and 'freedom,' for example, while representations of gas wells in Desolation Flats can convey ulterior messages of 'wealth' and/or 'desctruction.'

When people publish testaments or photographs depicting the Red Desert as either an empty wasteland just waiting for oil rigs or a pristine wilderness (Jones 2005, Clifford 2002), they are in fact drawing on personal cognition to negotiate personal and societal interpretations of 'open space' and 'desolation' (Shepard 1991). In doing so, they engage in public debate over the management of places.

PERSONAL EXPERIENCE and SOCIOPOLITICAL PROCESSES

Although land management debate ostensibly focuses on uses for specific locations – oil and gas development in a Desolation Flats Project Area or maximum protection of a proposed Adobe Town Wilderness Area, – it actually reflects the politicization of personal and societal values (see Cheng et al. 2003, Williams et al. 1992). People only protest alteration to the physical environment – construction of a power line, opening or closing of a road, overgrazing of a ranch – because those material characteristics are the basis for their individual experiences.

Recognizing the need to take these perceptions into account when debating policies, land managers encourage participation in political processes through standard NEPA procedures and even full collaborative efforts (Davenport and Anderson 2005, Cheng et al. 2003, Eisenhower et al. 2000, Kruger and Shannon 2000, Williams and Stewart 1998, Mitchell et al. 1993, Williams et al. 1992). BLM officials in Wyoming were shocked, however, by the reaction to DEISs for locations in the Red Desert: individuals submitted a record number of responses, the newspapers filled with articles and editorials, groups as seemingly uninterested as the Wyoming State AFL-CIO published formal opinions, and even the University of Wyoming developed an exhibit on senses of place in the Red Desert.

Indeed, 'sense of place' has become a key phrase in the political process. The environmental advocacy organization Biodiversity Conservation Alliance, for example, has been working to change public opinion of 'desolate space' into 'meaningful place;' in offering field trips to bring people to the Red Desert and, more widely, slide shows, photo displays, and numerous publications to bring the Red Desert to people, the group expects first- and second-hand sensation to encourage valuation and, ultimately, participation. Calling on individual perceptions, FRD has encouraged members to "[t]alk about personal experiences" (Website. 2006) with their governmental representatives, even providing templates for letters.

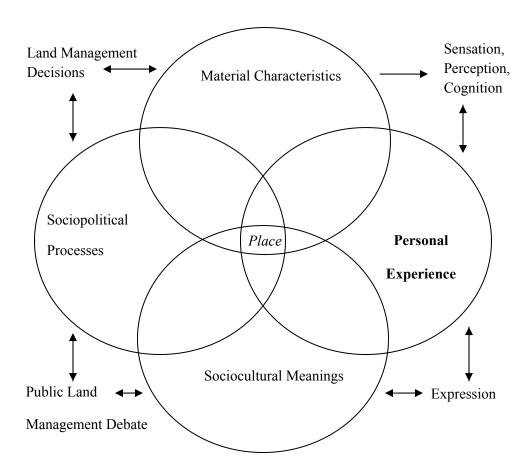
While "sense of place can be the shared language that eases discussions of salient issues and...affirms the principles underlying ecosystem management" (Williams and Stewart 1998, p. 18), it can also become impotent or misconstrued when divorced from personal experience. When land managers read official documents and host formal meetings, they aren't gauging the breadth and depth of people's unique relationships with the land; individual expressions are easily buried under layers of scientific, economic, even sociological statistics. When advocacy groups focus all attention on the propagation of formal positions, they lose the places behind the ideals; personal perceptions are stifled by bullet-lists and form letters. When people base their opinions solely on second-hand sources and/or couch their expressions in wholly value-laden terms, they ignore the entirety of experience. Tuan warned more than thirty years ago that "[w]e are in the habit of denying or forgetting the real nature of our

experiences in favor of the cliché of public speech" (1977, p. 204), yet people continue to discount individuality. Before selecting and/or rallying behind a publicly-created sense of the Red Desert as a place – wilderness or homeland, oil and gas repository or ecosystem, -- individuals must continually (re)consider and (re)engage in the fundamentals of personal experience.

'Places' evolve into and with 'spaces' through sensation, perception, cognition, expression, public debate, and, looping back, management decisions. There are numerous ways to lose 'touch.' But if participants adhere to the spirit of political processes and remain open to the nuances of individual experience and expression, the passion people have for places can provide a level of honesty and dedication to public debate over the management of places, and remain truer to the land itself.

When one citizen changed reference to his personal experiences in "My Red Desert" to advocate management of "Our Public Lands" (Bell 2007, emphasis added), he demonstrated how personal relationships are currently disvalued in the process of place-creation. Officials and theorists, citizens and owners must explore options for recognizing "My Red Desert" as an important part of not "Our Public Lands," but Our Red Desert.

FIGURE 1: DIMENSIONS of PLACE and PROCESSES of PLACE-CREATION



Adapted from Cheng et al. 2003, Figure 1, p. 90, to include "Personal Experience" and procedural arrows depicting place-creating; also renaming "Material Characteristics" from "Biophysical Characteristics" and "Sociopolitical Processes" rather than "Social and Political Processes."

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PLACE IN ACTION: A LOOK AT SENSE OF PLACE AMONG FOREST SERVICE VOLUNTEERS

Ben Amsden, Richard C. Stedman, Linda Kruger

Introduction and Framework

In order to connect the broadly-bounded concepts of sense of place and decision-making, we must focus on what people actually do in special places. Such an experiential, activity-based approach to the study of place will help us engage findings that describe not just how people feel, but also how and why they act: why they participate in local community institutions, how they interact with others, or what, if anything, they decide to do to pre(con)serve their local natural resources.

One example of this activity-based perspective that is closely aligned with this book's quest to fit place with decision-making is the study of volunteering as a form of public participation in natural resource management. Very little place research has addressed the meanings and attachment of volunteers, even though many of the causes and issues that lead people to volunteer are place-based (including restoration ecology that is explicitly about re-creating place). Furthermore, natural resource managers could compliment their strong understanding of the economic value of volunteers with additional insight into the perspectives and motivations of the volunteers. As such, a marriage of volunteering and place is appropriate for a number of reasons.

First, volunteering in a special place may create place meanings that are vastly different from those created through other activities. For example, volunteering plays a specific role in the creation of place-based identity (Gooch 2003). Identity creation, or in some cases identity maintenance, is in keeping with the social-psychological literature in wider volunteer contexts (Penner et al., 2005; Glynn, 2000; Piliavin & Callero 1991). Specifically, the creation of identity gives volunteers a sense of what they're doing and why (Glynn, 2000). This sense of self then informs how people view themselves in terms of the environment around them (Proshansky, 1978; Stedman et al., 2004). While boating, hiking, and hunting in a national forest may help a young person develop an identity as an "outdoorsperson," a weekend spent maintaining trail or serving as a summit steward in that same forest may lead to a more specific identity as a "helper" or "protector."

Second, volunteering is similar to sense of place in that it is situated in both social and personal contexts, oftentimes simultaneously. These contexts help people use important places to realize personal goals and strengthen social ties. Much of this depends on whether the volunteer is working alone, or in a group. When working alone, volunteers participate in activities that closely reflect their personal history and sense of self (Hustinx and Lammertin 2003). On the other hand, when volunteers are acting in a group context (such as a group of co-workers volunteering together one Saturday on the trail), they may focus more on the development of social ties and the organizational structure of the activities in which they engage (Wilson, 2000).

Third, volunteering has a strong leisure component. For example, volunteering which is more than just the provision of labor is known as serious leisure. Serious leisure is distinguished from other types of leisure by the level of personal investment: the need to participate in a unique subculture, acquire special skills and knowledge in the context of career development, and strongly identify with the chosen pursuit (Stebbins, 1992). Unlike other forms of public participation, such as attendance at a public hearing or participation in community leadership, the goal of serious leisure is skill or career development, not necessarily power in decision making.

If experience is indeed an ingredient in the creation of a sense of place, then each of these examples suggest that the act of volunteering may be a 'new' experience for place research. This chapter engages this idea, by qualitatively describing the places, meanings, and experiences that drive sense of place among participants in a volunteer program organized by the U.S. Forest Service in southern Alaska. The specific research question to be addressed is: how do the settings and activities of a volunteer program contribute to the sense of place of its participants?

Setting and Methods

The setting for this research is the Russian River Campground in southern Alaska. At the camparound, a volunteer-based education and restoration program known as "Streamwatch" was established to educate fishermen in the ways of resource-friendly fishing practices. By 2005 the program included 39 total volunteers, 10 of whom participated in this research. We used a technique called resident-employed photography, a process whereby researchers analyze photographic images taken by local residents to show, instead of just tell, specific details of the places that are important to them. Participants can also use their photographs to capture multiple details about each important place, and to remind them of what (or who) they are trying to capture. The resident-employed photography protocol replicated the approach of Stedman et al. (2004). In that project, participants were asked to take multiple photographs of several different places of importance in their lives. They were then interviewed, in order to capture the stories and perspectives behind each photo. The interviews were a critical part of the resident-employed photography process, because they allowed both researchers and participants to better understand not only the content of each photo, but also the mutual definitions of sociocultural and ecological phenomena.

The 10 Streamwatch volunteers were recruited for participation in the summer of 2005. Each participant was issued a single-use camera and asked to capture elements of their daily lives and their volunteer work that provide the most meaning, or that would be most missed if they were to move away. In addition, they were encouraged to photograph anything that represented why they volunteer, or demonstrated what they most would miss if they ceased volunteering. Once the cameras were collected from both the residents and the volunteers, we conducted follow-up interviews in order to review the photos and retrieve the personal story behind each one.

Results

The photographs and the text from the follow-up interviews were coded and jointly analyzed. From this analysis, four place-based themes emerged. Each theme connects place and activity, linking the important places in and around the Russian River site with the meanings and experiences that emerged from participating in the Streamwatch program. The four themes (including sample photographs) are as follows:

The Russian River: How it is "Supposed" to be. The Russian River as a setting for the Streamwatch program was very important to the volunteers as both an actual place and a cogent meaning. As a place, it represented a wide range of both past and present experiences, both volunteer-related and not. As a meaning, it symbolized the importance the volunteers placed on the immediate preservation of the natural resources of Alaska. To Martin, a retired Streamwatch volunteer from Anchorage, this preservation meant working to restore the landscape to the way it was before human impact. The following photo is of a little-used hiking trail leading into the wilderness:



The White Trail is actually detour trail from red trail to power line. It's a rainforest. Amazing. Makes you think about what it was like. So unique. I want to keep it as it is.

Martin's comments suggest that the trail was important to him because it represented how the landscape might have appeared in the past. By participating in Streamwatch, Martin could tap into this vision and contribute to the restoration of the natural area.

Campgrounds as Social spaces: Interacting with like-minded volunteers. The second important organizing feature of meanings and experiences within the Streamwatch program involves the importance of the friendships and relationships that are cultivated during the volunteer experience. Representing fun, solidarity, and purpose, the act of creating and maintaining friendships was revealed to be one of the highlights of volunteering in the Streamwatch program. In fact, nearly every participant who discussed relationships and friendships suggested that the seeing familiar people was one of the main reasons they returned to the Streamwatch program each year. Marissa, a volunteer in her mid forties, provided an example of the social aspect of volunteering by providing a photo of two other volunteers who were staying at a nearby campsite:



Tom and Elaine. They camp with us. We like the social aspect of meeting other volunteers. When we started, we already knew some folks, but have met more.

In addition to maintaining friendships, the "teamwork" that took place among the fellow Streamwatch volunteers was an important social meaning among many participants.

Recreation at the Russian River and in Cooper Landing. Several of the Streamwatch volunteers saw their efforts as a form of recreation. This was evidenced by the recurrence of images depicting the complimentary campsites provided to those Streamwatch workers who lived outside the local area:



This is our actual campsite and our motor home. We have a screen porch, and its private. Lots of room for enjoyment.

The theme of recreation involved activities both in and outside of the Russian River campground, and in many cases extended beyond the actual work of volunteering in the Streamwatch program.

The campground as a place to teach and give back. Another important meaning within the sense of place of the volunteers involved their ability to construct and maintain the role of "teacher." One of the major requirements of the Streamwatch

program was to educate fishermen in the ways of resource-friendly fishing practices, and help visitors avoid the attentions of the many large bears that populate the area. To this end, volunteers would patrol the boardwalk, observing behaviors, engaging in interpretation, answering questions, providing assistance, and offering advice. This opportunity to "be an expert" about the facilities, the agency, and the Streamwatch mission was of great importance to volunteers. In some cases, this was symbolized by the campground itself:



Program works to save river. Privileged to be part of it. Like people and educating.

In other cases, it was symbolized by volunteers in action. Megan, a middle-aged resident of the nearby town of Moose Pass, indicated the importance of teaching fishermen about bears. She suggested that while some fishermen were resistant to the information, most were responsive to the larger message.

Discussion

The findings revealed meanings that emerged jointly from the nature of the experience (participation in the Streamwatch program) and the site where these experiences occurred. First and foremost, the volunteers who participated in this research see the act of volunteering in Streamwatch as a form of leisure, reflected by the numerous pictures of the campsite where they stayed and the repeated referrals to the "fun" of the program, the enjoyment of seeing wildlife, and the act of socializing with others. Second, the volunteers stayed with Streamwatch in order to give their time and skills back to a resource that they felt had given much to them. Finally, the volunteers saw the act of volunteering (both in Streamwatch and elsewhere) as a way to strengthen and maintain the landscapes they saw as "home."

But why choose the Streamwatch program to have fun, socialize, and give back? First, the volunteer participants saw Streamwatch as a way to combine their love for the Russian River with their need for social connection, using the program as an outlet to search for new opportunities for social growth. This growth came about through the creation of new, teamwork based relationships with fellow volunteers, which helped the volunteers feel as though they were an important factor contributing to a greater, place-based good.

Second, volunteering in the Streamwatch program also helped volunteers legitimate important identities as "teacher" or "protector" of a specific important place. In this case, the volunteers chose the Streamwatch program for the specific purpose of combining place with the act of identity creation.

It should also be noted that on the surface, the identity creation dialogue may make it appear as though the Streamwatch volunteers were engaging in serious leisure. However, during the interviews they did not mention volunteering as a proxy for a career, only that they enjoyed the opportunity to engage in the various volunteer activities. This suggests that the volunteers, at least in this context, may not be engaging in their volunteer work to the extent necessary to classify it as a form of serious leisure.

In summary, this experiential, action-focused approach to the study of sense of place is a useful for natural resource managers and decision-makers, because they can better reach out to the volunteers who are becoming more important to the future of important places such as national parks and forests. As budgets shrink and services decline, it makes sense to implement both placebased and activity-based approaches to understanding those who have donated time and energy..

Applications of this understanding could include a written handbook for volunteer recruitment, possibly instructing managers to use place descriptions to entice potential volunteers. It could include a training manual, with a section on skill development in line with the concept of serious leisure. Another potential product could be a manual of best practices aimed at the long-term retention of volunteers in a specific place based-context. Observing how these materials work will also help managers gain a basic understanding of how experiences, meanings, and relationships inform the cognition of volunteers. Elucidating the connections between activity and sense of place will also help the volunteers themselves better understand what they do, providing them with a means toward the realization of repeated, satisfying and fulfilling volunteer experiences.

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SHARING STORIES OF PLACE TO FOSTER SOCIAL LEARNING

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Place research underscores a need to facilitate social learning. This need arises in recognition of the complexity of place meanings and landscape values (Manzo, 2005), to humanize stakeholders and facilitate a sense of community (Fine, 2002), and to create value for places through civic science (Kruger & Shannon, 2000). Forums for social learning allow stakeholders to locate themselves in a larger context of community and place with consequences of understanding shared connections to each other and their environments. The increase in diversity of place meanings for public lands has given rise to "wicked problems", those problems not given to technical solutions or agency-based control (Allen & Gould, 1986; Yaffee, 1994). Place research has been a contrasting response to expert-based land management.

Place asserts the primacy of locality and community-based meanings. Accordingly, the place literature has a history of exploring the nature of human relationships to environments, with major streams of research devoted to felt value and emotions of place (Manzo, 2003; Schroeder, 1996; 2000), attachment to place (Williams, et al., 1992; Kyle, et al., 2004), and values and meanings of place (Stokowski, 2002; Stedman, et al., 2004). The research on these concepts implies dialogic processes for planning that allow representation of place meanings, values, and emotions.

Since the 1980s, trends in land-use planning have moved in the direction of processes that sustain dialogue among various kinds of stakeholders. Government agents, scientists, special interest groups, and citizens become engaged in processes that center decision-making on their dialogue. Ecosystem management, adaptive management, and community-based conservation are examples of stakeholder involvement strategies wherein meanings, values, and emotions of place emerge in decision-making. However, the need to develop planning strategies that link directly to place and foster social learning remains.

Not all land-use planning forums are conducive to social learning. Many are framed as "public involvement" events during which agencies garner opinions or "input" from stakeholders on their initiatives. Rather than embedding decisions in a learning process, many public involvement strategies are one-way in their communication flow and may result in stakeholders reaffirming their understandings of the issues and reinforcing stereotypes of each other (Gramling & Freudenburg, 1994). This paper frames place meanings and values as more than preferences or statements of opinions. Place meanings are represented through narratives that link people to their communities and their natural environments (Cronon, 1992). Story-telling is a natural way for people to organize their lived experiences and values into meaningful wholes (Glover, 2003; Polkinghorne, 1988). Stories representing place meanings may hold promise to facilitate planning dialogue. Kruger and Shannon (2000) champion approaches to inquiry that allow people to tell stories of their lived experiences to others. The sharing of stories gives

community members an active role in constructing their viewpoints and in learning from one another (Fine, 2002; Richardson, 1990).

Techniques are needed to facilitate the sharing of stories about place. The promise of stakeholder forums in which place meanings are shared is a decision context based on socially constructed values and increased recognition of the complexity of such values. This research facilitates the transition in land-use planning from expert-based to citizendriven (see also Fischer, 2000; Irwin, 1995; Yankelovich, 1991) by exploring a decision-making strategy for social learning and democratizing decisions.

Learning Circles

Sharing stories about place has modest aims. At its core is the simple act of representation, yet it also holds potential for legitimation and public creation of value. Sharing stories is premised upon place meanings as being embodied in lived experience of place. Doing so allows others to understand emotional attachments between people and their environments. Through understanding the place meanings of others and knowing that others understand your own, social learning is fostered about the value of place for a community of people. Sharing stories about place may lead to a creation of value for a locale that otherwise would not be known amongst a community (Brandenburg & Carroll, 1995). Sharing stories about place is not about reaching consensus nor resolving differences, it is about recognizing – and potentially legitimizing – the meanings and values held by stakeholders for a place. Through the sharing of stories of place, values for landscapes are represented and understood in everyday language (Hull & Robertson, 2000), thereby facilitating knowledge transfer, exchange, and mobilization.

The relevance of sharing stories of lived experience to social learning is explored through observations from two learning circles. They were conducted in Urbana, Illinois, a town within a metropolitan area of more than 100,000 people. The nine participants in each of the learning circles were from a variety of neighbourhoods in the community, and members (either past or present) of a park district advisory board, or were employees of the park district. As preparation for the learning circles, participants were asked to take pictures of important places in their daily lives and to share two or three of these important places with their fellow learning circle participants. Their photographs were depicted on a screen during their presentation. Discussions were tape-recorded and transcribed to allow for a review of the dialogue, which was intended to inform interpretation of the extent and quality of social learning. As a final task, participants were asked to reflect and make an assessment of the discussion. They wrote down their thoughts and reactions in a "blue book" provided to each learning circle participant.

The discussion is organized around the capacity of learning circles to foster social learning and allow for a public creation of value. The findings illustrate the potential of a public sharing of place meanings to foster social learning, provide contexts to build a sense of community, and ability to act as visions for land-use planning.

Looking at places

The learning circles, coupled with use of participants' photographs, focused attention on the landscapes, not the people. Participants viewed each other's pictures and considered place meanings, rather than thought critically about participants. Although the concept of place has a long history of connections to self and personal identity (Patterson & Williams, 2005), when we talk about our lived experiences of place, the object of discussion is the experience of the place rather than the person doing the talking. Stated differently, we are each experts on our lived experiences in the places of our lives. When we share these lived experiences with others, the "spotlight" shifts away from us and towards the environment – particularly if there is a photograph or some artefact to depict the place.

As an indicator of this focus of attention on places, participants often introduced themselves in reference to their place meanings. For example, Melissa introduced herself by depicting the loss of a local grocery store near her neighbourhood with a picture of the abandoned grocery store; her first remarks went directly to a commentary about her neighbourhood, "I'm feeling a lot better about southeast Urbana because I live right around there and it was a big loss to lose Jerry's IGA.....One of the reasons I bought [a house] where I did is because I could walk to the store as I aged". Another participant, Rose, introduced herself with some details on her personal environmental history:

This is a portion of my front yard. I actually have a very big lot and that's just sort of part of the lot. I grew up in Chicago and I was raised living in an apartment. And I had no yard. I had about a 4X4 foot patch of dirt in front of my apartment...there was no grass. There was maybe a little bit of parkway in front of all the apartments, and there were no [single-family] houses anywhere in sight. I played in the alley when I was growing up.

By directing attention to places, participants deflected attention from themselves. Although their remarks support notions of "place identity" and "topophilia" in which people construct personal relationships with environments (Proshansky, Fabian, & Kaminoff, 1983; Tuan, 1990), the audience receives these narratives about place as being relational with the environment and, in doing so, attention is directed toward the environments at-hand. The remarks of participants described places they had come to know, thereby leading to discussions about place, seemingly not about themselves or their ideological beliefs. Because of the perception that this discussion was about places and not about themselves as individuals, the conversations about place meanings and landscape values unfolded effectively. For example, in her final reflection, Frances wrote "I really don't like public speaking, but talking about something I know about and love helps me to become a better speaker." Valerie wrote "Sharing memories of places is as good as any ice breaker." From both the transcripts of the learning circles and the final reflections of the "blue books," the findings suggest participants were represented and framed by others in relationship to their landscapes and meanings developed from them.

Building contexts for representation of place meaning

Describing special places was often told as a *personal* history of a participant's association with it. Participants were asked to tell others about their important places, and their meanings were developed through a telling of place history that focused on the participant's relationship with the place. Rose's portrayal of the Urbana Farmer's Market prompted a group discussion of the market's dog policy:

Rose: I go to the Farmer's Market about 10:00 or a little after, but I take my poodle with me. And so, I find that there's lots of dogs then.

Jill: So the dogs are all socializing, and people are socializing, little kids come up and the parents aren't sure if it's a friendly dog, and so they'll ask.

Melissa: It's like an alternative dog party.

Darla: It's really funny because they tried to fight the dogs at first, and it was illogical that you don't have dogs there with all those people, and it just didn't work. People just kept coming with their dogs....because they're on their walks. You know people are taking their dogs out in the morning.

Jill: Well, I [usually] don't bring mine because the first time we went they realized there was food, and all they wanted to do was snuffle along the ground because there's food on the ground.....This one time I brought my yellow lab because I knew I was going to be there all day and she's kind of entertaining the people, and I had bought some of the popcorn, and she loves popcorn, so she was literally doing acts for everybody to get popcorn. It was pretty funny. So it was my way of drawing people in.

This interchange about the dog policy at the market provided a specific example of participants telling of their lived experience, and in doing so, developing a social context to understand place meanings. In the above case, a few of the participants are telling their own histories of bringing dogs to the market, and these histories not only embody their place meanings for the market, but depict needs and activities of their daily lives.

The conversation continued with a discussion about the function that the market served to build a sense of community, and included participants talking about its connections to desirability of nearby real estate, propensity of garage sales in nearby neighbourhoods and their enhancement on a sense of community, expansion of store hours in downtown Urbana, activities at the market to bring children together, and the selection of vendors at the market in response to changing values of the community and increased diversity in shoppers. There were several community-based values that emerged in discussion of the place meanings of the market. These values were easy to express and understand due to their portrayal as part of participants' lived experiences with the market and their collective sense of loss during the winter months.

Participants' comments in their "blue books" also indicated that learning social contexts helps to understanding place meanings. Bernard wrote "It was neat to hear about other people's perceptions and histories. This has helped me to see some of the places differently." Brad wrote "The next time I go to Busey Woods, I will think of Frances and her sisters collecting walnuts with her grandmother. I didn't even know there were walnut trees growing there." By telling the social contexts of place meanings, they were

easily understood by participants to the point where several participants changed their place meanings, or at least, will "see some of the places differently."

Teaching place history

The learning circles allowed a teaching of place history in order to appreciate reasons for current conditions and to enhance the ability of others to interpret the landscape. Several participants' discussion of place meanings addressed questions about "Why has a place become the way that it is?" In essence, they were telling others about their way to read the landscape. For example, Emily discussed the evolution of a local waterway:

Emily: Does everyone know where the Boneyard [Creek] starts?....It starts in Northwest Champaign out by whatever the school is out on Bradley. . . . way up north and there's always been flood issues. . . . And so at one time it handled the water when it was all prairie, it handled it, it could handle the water, but as Urbana and Champaign grew, and put more concrete down, and it couldn't handle [the water] any longer. You go back in records they've been dealing with the Boneyard forever. Because it just never could handle all the water that comes off the land. . . . This [the picture] is the Boneyard flood control [reservoir]. A lot of people don't know about this.

By telling our place histories to others, we share our rationales for ways in which a place came into being. Story-telling can contribute to creation of a legend about a place that others come to reproduce. The public sharing of place histories, particularly in the above case of the Boneyard, was framed as teaching about place and meant to enlighten others about reading, and possibly appreciating, the local landscape.

Some of the participants indicated that place histories were meaningful to appreciate the locale in the reflections written in their "blue books." Rose writes "It is great to know that people share some common beliefs and it's good to think about what is different. Knowing how our histories affect our attitudes [about places] is very interesting."

Understanding difference

With the focus on places, differences between place meanings became non-threatening, friendly, and easily understood and received. Dialogue about commonalities and differences among participants in the learning circles appeared smooth and progressed without the anxiety one might expect at traditional forums of public involvement – such as public hearings or planning workshops. For example, Toni discussed her appreciation for the agricultural landscape in Illinois, and contrasts it with an earlier depiction of it being "flat and ugly."

Toni: [Illinois is] not flat. I mean you said, oh yeah, it's flat, but no it's not. It's gentle. And you can see what's coming each year. It's not, what I hated about living out East is you could never see what was coming at you. when I came back [to Illinois] I really appreciated the beauty of the fields. I love April when they plow up the dirt and sow. It's just this richness and this vibrant color after all the dead stuff you see all winter long. And then they plant and everything is orderly. All in little rows.

For some people, the learning circles enhanced their own sense of self through comparison with place meanings of others. For example, Emily realized that she took a number of pictures of old buildings and appreciated the old-time architecture. By contrasting her places with the places of others allowed a sense of self-discovery. In introducing herself, Emily, one of the last participants to present her photographs, states:

I kind of realized that I'm a preservationist, an historic preservationist. Because actually a lot of the pictures I was taking were of old space or things that had been around a very long time, and what I find is I really value downtowns like this..... I think that a sense of a town center is very important, you know, every town needs an identity.

In her reflections from the "blue book" Emily further states that "I learned that I am more of preservationist than I ever realized I am. I also learned that thinking about the future as well as the past is very important to me." In his "blue book," Bud reflects on the discussion by noting "I learned we all have the same values...[even though] a lot of the pictures were different but it seemed to bring us together as a group." The learning circles allowed each participant to situate themselves in the context of place meanings and values of others. By comparing their place meanings to others, they assessed similarities and differences with others, and to various extents the conversation allowed participants to discover both themselves and their community.

Public discussion about racial differences is still an open point. During a private conversation a participant who is African American mentioned a local swimming pool as being segregated when she was a child, and then it opened to all races as she grew older. Some people view the pool as a symbol of change, and there was a sense that the African American community should use the pool and reaffirm the racial integration of public places. However this topic was not mentioned during the learning circles. It could be that each participant discussed only a few of their place meanings, and that this particular place meaning was not a priority to tell. It also could be that the learning circles created a social norm to represent places in positive ways, and that a negative place meaning – even one of a bygone era – would violate this norm.

Conclusions

The effectiveness of the learning circles is their capacity to shift dialogue from a stakeholder-planner relationship, to a stakeholder-stakeholder relationship, where the planning organization is but one of several stakeholders. Public speaking was noticeably easy for participants, in part, because they were talking about their places not about themselves. Because of this, differences were viewed not between people but between places, and the tension that could align with inter-personal differences was neutralized. Values for landscapes were expressed as part of one's lived experience of place, including the teaching of a landscape's history, and were not abstracted in some ideology, conflict, or adversarial relationship. The learning circles showed promise for public creation of value and legitimation of place meanings by underscoring the extent to which all stakeholders cared about their place and community.

To be sure, sharing stories about places meanings may not be appropriate for all landscape planning contexts and would be one of component of larger frameworks for planning. However their virtue is to provide a positive starting point for public dialogue in which groups of people appreciate each others' place meanings and publically share their emotional attachments to a locale.

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RHETORICAL DIMENSIONS OF PLACE IN THE CONTEXT OF AGENCY ORGANIZATIONAL BEHAVIORS

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At first blush, the notion of "incorporating place into decision-making" seems to imply that "place must not be incorporated into decision-making right now." I think that topic remains an open question, however, and suggest that we approach the issues from more of a research platform rather than an advocacy position. The purpose of this paper, then, is to analytically consider the relations between place and decision making, beginning with observations about how these topics currently intersect in natural resource management, and assessing (and demonstrating) how they might, or should.

First, "knowing place" has always been a central feature in natural resource management – or, at least, "knowing place" in a specific way (as "resource"). Managerial actions in natural resources contexts seem to be almost always based on detailed understanding of specific sites ("places," ecologically and objectively defined) where people engage in activity of one sort or another. For example, the basic model of "the outdoor recreation system" includes three elements: a visitor; management actions; and necessarily, the natural resource base (a site, a "place"). Most recreation management texts also give a fairly standardized inventory of the characteristics of the sites (places) where recreation occurs; these features include (Jubenville 1978) soil, water, air, flora, and fauna, and are addressed within the professional description of "recreation resource management" (with "resource" as another name for "place") as including site management, vegetation management, landscape management, ecosystem management, and hazard management, to name a few.

These observations lead to the conclusion that managers know and understand place (typically as "resource paces"), and work place-based knowledge into their decision-making activities, in highly objective, routine ways that presuppose the rightness and inevitability of manager's discourses about the topic of place. A manager "knows place" by having well-established and predictable ways of thinking about ecological and functional features of spaces-defined-as-places.

Second, because managers apply place-based knowledge in routine ways, their bureaucratic decision-making practices presuppose the rightness and inevitability of their own discourses about places.

Managerial activities occur within existing bureaucratic contexts, and calls for new types of citizen participation and collaboration with managers (based on citizens' direct and close understanding of place, and the "meanings" they describe as valued) are nevertheless constrained by bureaucratic structured and function – and efforts to incorporate other views into routine practices of decision-making must take into account the bureaucratic contexts that sustain the routine practices of managing.

Thus, place discourses that diverge from those produced by mangers, however, are likely to be unanticipated, and given unequal attention, if they're even acknowledged to exist – and it is unclear what managers should do with place

meanings and understandings that are outside their prevailing interpretations. Moreover, as bureaucratic organizing processes become routine, the objects they manage also are objectified, stabilized, and routinized ... with the consequence that places, and people's sentiments about places, are also generalized and become less place specific, less unique, less meaningful.

Jubenville (1978, p.7-8) defines "the managerial role in outdoor recreation" as being "very complex – incorporating resource management (effects of the landscape on the visitor and the visitor on the landscape), visitor management (enhancing the social environment in order to maximize the recreational experience), and service management offering necessary and desirable services so the user can enjoy both the social and the resource environs in which he (sic) participates."

Third, the routinization of managers' decision making processes also presupposes a taken-for-granted view of organizational structure and processes that support decision-making in natural resource management. As much as decision-making constitutes much of what managers do in their day-to-day work, and even though our fields are filled with how-to manuals about operations and administrative tasks, organizational behavior in general, and decision-making processes within natural resource agencies in particular, are vastly under-studied. If anything, management is defined as a problem-solving process – rather than an area of scholarly investigation into organizational processes.

There seems to be, in fact, very little research specifically focusing on processes of decision-making in resource management. (Anticipating and encouraging such research by considering how one might "fit" place ideas into managerial processes thus also seems timely.) Moreover, the lack of foundational research into organizational processes in natural resources management does not seem to limit claims, however, that organizational transformation is needed. It is common these days, for example, to call for agencies to move from top-down managerial styles into more bottom-up, grassroots, collaborative processes.

There seems to be considerable discussion in all our literatures about transforming planning (and one presumes, associated managerial processes such as decision-making more generally) from top-down styles into more bottom-up, grassroots, collaborative processes. Given that there is no parallel discussion about reforming bureaucratic structure to accommodate new ways of sharing power, the new collaborative agenda seems to me to be an exercise in "nostalgic democracy" ... democracy that we envision as an ideal, but not necessarily a democracy that agencies find practical in application.

It is not entirely clear that these processes either: (a) assist managers in making better decisions; (b) assist citizens in having their views heard and applied; (c) assist environmental organizations in being more efficient or effective, (d) assist planners in applying tools and techniques more productively, or (e) assist researchers in developing greater insights about place, about organizing, about decision making and applications, or about much of anything else.

These observations lead to several important questions. First, what is it exactly about "place" that needs to be incorporated into decision making? That is, what aspects of the developing body of knowledge about place issues seems especially relevant for decision making processes, and vice versa? (Is it people's attachments to places, or the strengths of their feelings about places, or whatever we come to know as "meanings" of place, or the ways places are used, or something else? Is it the ecology of places, features about the geography of places, or some combination of things beyond the social, psychological, and utilitarian aspects of places?)

A second, parallel question is this: What is it about decision making specifically that we feel needs to be revised to accommodate place knowledge or understandings that managers now lack? (Is it: organizational restructuring to better accommodate citizens' concerns or meanings? Is it decision making procedures themselves that are not working? Is it some sort of organizational process or function that cannot obtain or manage certain kinds of place understandings or knowledge? Is it lack of leadership?)

Answering these questions (which I intend to do in the next version of this abstract / paper) serves as a basis for considering new ways of thinking about the "place" of place in the context of organizational behavior in natural resource agencies. The second part of the paper will focus specifically on planning aspects of natural resource decision making – and will provide a context for discussing place by applying Friedmann's (1987) analysis and critique of planning philosophies.

One approach to understanding the relationships between place and organizational behavior (especially relative to decision making) is found in Friedmann's (1987) study of the emergence of scientifically-based planning. Asking "what are the characteristics of a good society?," Friedmann described four philosophical traditions (social reform, social mobilization, policy analysis, and social learning) that support different bureaucratic structures and processes, and result in different approaches to social planning. He then asks whether these approaches are outdated in today's post-millennium world.

We might fruitfully adopt a similar approach in analyzing how place is currently understood and applied in the organizational processes of natural resource management, what philosophical traditions support contemporary approaches as well as challenges to current approaches, and what the consequences of alternative philosophical perspectives might be for bureaucratic action. In this analysis, I aim to particularly consider the rhetorical (i.e., persuasive) dimensions of place-based knowledge and organizational process.

In this paper, I use Friedmann's model to analyze the relationships between place, decision-making, and organizational process in natural resource management, focusing specifically on the rhetorical (i.e., persuasive) dimensions of place-based knowledge and organizational process.

CONNECTING PLACE TO FIRE PLANNING THROUGH PARTICIPATORY MAPPING: A CASE STUDY ON THE KOOTENAI NATIONAL FOREST IN MONTANA

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Introduction

There is increasing interest in integrating sense of place research into decision-making. Place research has tremendous potential to contribute to more democratic, participatory decision-making and enhance communication between stakeholders and management agencies. Sense of place is a broad term encompassing a multitude of superficially similar topics, including place meanings, relationship to place, place attachment, and place identity. In its most basic sense, "place" refers to space endowed with meaning. In the realm of natural resource management, two fundamental precepts have guided place research. One, sense of place is attached to specific geographic locations often referred to as special places. Two, these special places are not substitutable to the users that attribute meaning to them.

It flows from these concepts that mapping special places and documenting the reasons for attachment are both possible and useful. By capturing the spatial dimension of place in a reproducible map, researchers may be able to communicate place concepts to managers and, therefore, better inform planning and decision-making. Indeed, there has been a surge of interest in social, or participatory, mapping recently. In this chapter, we explore the role of social mapping in linking place to decision-making. We examine the potential for such mapping to provide decision-makers with information about the place meanings embedded in particular geographic locations, and the ways that these meanings connect to proposed management actions for these locations. Using a recent study that employed an innovative, participatory mapping tool, we discuss the strengths and weaknesses of social mapping as a technique to both capture sociocultural phenomena, such as place meanings, and to assist decision-makers.

Linking Place with Proposed Management Actions

While managers and other decision-makers may recognize that people's relationships to place are important, actual research on sense of place rarely contributes to decision-making, except in the arena of recreation management. Where place research is available it may be used to understand the broad outlines of stakeholders' relationships with the surrounding landscape. However, because place research is rarely explicitly connected to proposed natural resource management actions, it is difficult to translate research results into public preferences for specific management options. Far too often, researchers and decision-makers make "logical," but unfounded assumptions about the relationship between place meanings and proposed management actions.

For place research to truly integrate place meanings into natural resource planning and decision-making, it must investigate the connections between sense of

place and specific management actions. We need to better understand if, how, and under what conditions place meanings are related to views on management actions, from forest thinning to ski resort development. Decision-making bodies will then have information regarding why an understanding of place is relevant to specific decisions and how to use place research in decision-making. This knowledge could potentially aid managers in anticipating, if not avoiding, stakeholder conflict over values or interests that may be threatened by the management action. Place researchers also need to develop ways to make research more accessible to decision-makers who may have trouble incorporating social science data into their planning frameworks. Such efforts might include exploration of participatory data collection techniques as well as ways to represent and disseminate data that are both highly accessible and relevant to decision-making bodies.

Geospatial data, typically in the form of GIS maps, has become vital to informed decision-making, but it is difficult to capture complex and nuanced social data in such formats. Furthermore, because of the technical expertise it demands, GIS is oftentimes an inaccessible technology and difficult to utilize in collaborative decision-making. If social data, such as place meanings, can be adequately represented in a spatial format, such data might be more accessible to a range of interested parties. Specifically, participatory GIS exercises could be incorporated into NEPA mandated public involvement. Alternatively, collaborative groups could employ participatory mapping as they actively negotiate how they envision proposed projects happening on the ground. Oftentimes a visual aid such as a map will elicit different reactions and clarify important ambiguities present in abstract group discussion of inherently concrete phenomena. Some place researchers have suggested that such interactions can contribute to mutual learning, trust building, and much more.

Connecting Place and Fire Management on the Kootenai National Forest

In 2007, we investigated the ways in which knowledge of place meanings could inform decisions about hazardous fuels reduction and fire planning. As part of this study, we explored the utility of gathering and representing such meanings spatially. This research was conducted in the rural, forested community of Libby in the Kootenai National Forest in northwestern Montana where an extensive wildland-urban interface (WUI) lies just east of the Cabinet Mountains Wilderness. This community is experiencing economic and demographic transitions similar to many rural communities in the western U.S. In that regard the insights gained from this study may speak to resource management elsewhere in the changing American West.

The management of wildland fire is of utmost concern to Western land managers. Prolonged drought, catastrophic wildfire, and expansion of rural residential development are pushing this issue to the fore. The National Fire Plan of 2001 requires that local communities be considered in planning for fire and hazardous fuels since these management decisions have resounding material and social effects on local people. While prior research has focused on the economic and ecological impacts of fire, few studies have examined the socio-cultural impacts of fire. In particular, we know very little about how community members and forest landowners regard the spectrum of potential fuel treatments available to the land manager. We also lack information about how local people's place meanings might interact with views of fuel

treatments. Such knowledge is clearly required to better integrate the needs and views of local communities into fire planning.

Prior place research suggests that understanding sense of place may enable managers to identify and respond to the bonds between people and the landscape. In this study, we wanted to know if and how people's relationships with the land are related to their views on fire and fuels management. This knowledge has the potential to help us understand which fuel treatments and fire management alternatives are deemed appropriate for use and why. Conflict could then at least be anticipated, if not reduced, when new management actions are being considered. Local stakeholder groups would be able to utilize such information to better understand how different management actions might impact people's sense of place and how place meanings affect views on management. This could lead to greater awareness and articulation of common ground for the groups, as well as stronger agency-community relationships that could be drawn on in times of actual fire emergency or other coordinated efforts.

To better understand the meanings and views of local stakeholders, landowners in the WUI were interviewed during the summer of 2007. In-depth, semi-structured interviews focused on landowner relationships with the landscape as a whole and with specific places. Landowners were also asked about wildland fire and hazardous fuels management. Interviews included a computer-based mapping exercise to provide participants with an opportunity to spatially describe both their relationship with place and their views on three specific fuel treatments. We wanted to know if people's place meanings could be represented spatially in a way that captured the complexity of such meanings and provided accessible GIS data to decision-making bodies, and to better understand the connections between place and views on fire and fuels.

We found that place-based meanings were connected to landowner views on fire and fuels, but that the computer-based mapping exercise alone provided incomplete information on these connections. Forest landowners readily mapped the specific places of importance to them and described why they were attached to those places, such as lakes, meadows, or drainages. They also conveyed meanings that they explicitly associated with the entire landscape, rather than specific places. But landowner preferences for fuel treatments were rarely, if ever, situated in specific places. Instead landowners thought about fire and fuel management at a landscape level. For example, one longtime landowner discussed his favorite berry picking, gold panning, and hunting locations, mapping these special places with ease and great specificity. Additionally, he finished the exercise by creating a map that depicted the entire landscape as very important to him as representative of home, family, and culture. Later, when asked to map which fuel treatments would be acceptable, he answered in very broad strokes, saying, for example, that prescribed burning was acceptable everywhere. This reluctance to map management preferences in specific locations was widespread amongst participants.

However, while fire management preferences were not situated at the same scale as special places, landowner views on fire and fuels were very much related to landscape-level place meanings. These landscape-level meanings existed as components of place-based narratives situated at a much larger scale than special places. These complex landscape narratives were oftentimes about stewardship and proper management of the forest. Landscape narratives were related to how

landowners "saw" the national forest as a place of work, amenities, or naturalness. These multiple and sometimes competing landscape narratives were connected to support for wildland fire use, prescribed burning, and forest thinning. When landowners discussed their preferences for fuel treatment they oftentimes explicitly related such preferences to their ideas about proper forest management and the landscape narrative(s) to which they subscribed. For example, landowners who described the area as natural were more likely to support wildland fire use. On the other hand, landowners who saw the area as a working landscape were more interested in forest thinning. The qualitative interview as a whole allowed for a detailed understanding of these landscape narratives, which were oftentimes only briefly referenced during the mapping exercise.

Knowledge of the connection between place meanings and views on fire and fuels can assist decision-makers who are interested in understanding conflict and common ground in local communities. While prior research has shown that forest landowners usually support some type of fuel reduction, we found that an understanding of place, especially at the landscape scale, provided a deeper understanding of why landowners support specific types of fuel reduction. Decisionmakers can use this information to determine the extent of support for or common ground around proposed fuel treatments. They might also be able to better predict possible shifts in support for fuel treatments as a result of landownership change. In contrast to prior research, we found that individual maps of special places alone did not provide information that could be helpful to fire managers, because the meanings associated with special places were not connected to preferences for fire management and because views on fire and fuels were situated at a much different scale as compared with special places. In the context of fire management then, special places were substitutable for landowners in this study. Landowner fire management preferences did not hinge on the protection of their individual special places. For example, one landowner explicitly stated he did not expect his special places to be given extra protection from fire or the sometimes aesthetically adverse effects of fuel reductions. Despite the limitations of the mapping exercise, this portion of the interview was critical because it revealed the fact that fire management preferences were not situated at the scale of special places, but rather at the landscape level. In the end, we concluded that participatory mapping, at least in this case, was a useful tool, but that it failed to capture the full depth and complexity of place meanings.

Moving forward with Place Mapping and Place-based Management

This study suggests that sense of place may be situated at multiple, nested scales from particular geographical locations expanding out to a much larger socio-cultural, landscape context. Additionally, depending on the specific management action, special places may be substitutable. Decision-makers must find ways to account for place meanings that occur at multiple scales. Decisions that are generically based on sense of place may draw on data that are situated at a difference spatial scale than the management actions themselves. Issues of scale will continue to emerge as place is increasingly linked to decision-making in new contexts. When basing a decision on place research, managers should be aware that their particular management actions could be connected to place meanings residing at one spatial scale and not another,

e.g. at the regional versus local scale. In this case study there was a mismatch in scale between special places and management preferences. A hazardous fuel management decision based on special places would have missed what was actually driving landowner preferences for fuel treatments. This scalar mismatch between elements of sense of place and the "location" of management preference could easily be overlooked, particularly if social mapping focuses exclusively on special places.

Furthermore, for social mapping to realize its potential to spatially represent place meanings, we need to develop methods that allow for mapping that is attentive to emergent meanings. The main strength of our mapping approach was the ability to capture qualitative data and remain open to unanticipated themes because the mapping exercise was part of a larger interview. The mapping exercise functioned very well in the context of the interview. However, the mapping exercise alone might have been insufficient to capture the diversity of views and depth of complexity regarding place and fire. Other mapping tools and techniques may suffer similar weaknesses. Initially, the holistic nature of sense of place made it an attractive tool for integration with adaptive, ecosystem research. To realize this potential, researchers must strive to retain the richness of place meanings as they convey findings to managers in accessible, useful forms.

THE RURAL PROPERTY INTEREST MOSAIC: COLLECTIVE ACTION IN AMERICAN AND NORWEGIAN RURAL AMENITY AREAS

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Abstract

In this chapter we will present an analysis of development and change in rural amenity areas. Specifically, we examine the pursuit of action via formal planning processes and civil society, as well as their implications for community and land. We will conclude by presenting a framework for collective action, one which is driven by competing interests in domestic property that complicate local planning – labeled community interests, place interests, and commodity interests. We argue that this framework is useful for understanding why people and groups act, and how decisions – with important ramifications for the health and sustainability of our intrinsically unique places – are made.

Extended Abstract

The question before the city is whether it is going to develop according to a plan that will preserve historic resources and the almost pristine beauty of the town which visitors treasure, or whether it is going to go the way of so many newly 'discovered' tourist attractions (Lidfors, 1980, p. 31).

Written nearly thirty years ago about Bayfield, Wisconsin, these words remain salient in this tiny burg at the state's northern tip, on the shores of Lake Superior. Like many rural amenity areas,¹ Bayfield has been "discovered" in recent decades. A slow but steady influx of new residents now poses distinct challenges for the community's ability to balance economic development with preservation of natural resources.

This chapter will be based on the premise that when it comes to the health and sustainability of our intrinsically unique places, community – specifically the civil society that resides and the local governmental planning processes that take place therein – is a critical arena for decision-making that needs to be recognized and better understood.

Changes in the natural landscape of many rural places are leading to increased pressure on public land managers. Bayfield County, for example, is home to the Apostle Islands National Lakeshore and the Gaylord Nelson Wilderness Area, along with 400,000 acres of publicly-owned forest land. These amenities bring more than \$130

¹ Natural amenities are specific regional characteristics such as forests, coastline, mountains, etc. (Marcouiller, Clendenning, & Kedzior, 2002). More generally, an amenity is a "feature that increases attractiveness or value, especially of a piece of real estate or a geographic location" ("Amenity," n.d.). Development in rural places of the Western world is increasingly occurring where some capitalize on amenities and others respond to their allure; we refer to these places as amenity areas.

million in annual tourism revenue. Additional visitation and activity leads to additional development, however, and since a majority of the area's most desirable coastal property has already been developed, new housing is increasingly built on newly-cleared rural lots providing lake views. Much of this activity is occurring on hillsides and adjacent to public lands, leading to concerns about erosion and water quality, forest fragmentation, and habitat loss. Environmental stewardship in these sensitive areas is in the hands of the twenty-eight small municipal governments and the Red Cliff Band of Lake Superior Chippewas, along with the thousands of private property owners in the county.

As the physical landscape of a place changes, the social landscape undergoes simultaneous changes that figure prominently in land use debates. Growth in seasonal homes and tourism present both opportunities and challenges for Bayfield County. With 42 percent of all housing in the county used seasonally, "leisure and hospitality" jobs comprise a quarter of all county jobs (USCB, 2000). For many this represents needed economic sustenance but for others it engenders resentment of change. For example, residents with longer local tenures, having lived through various periods of economic restructuring, worry about the vibrancy of the community, its people and institutions. Relative newcomers attracted there by the amenities, on the other hand, are often most concerned with preserving the place,² the physical surroundings to which they have become attached. And for place entrepreneurs seeking to capitalize on the community's amenity-transition, commodification and consumption of amenities are the primary concern. While these are generalizations of perspectives observed in two case studies, they represent the divergent ways in which stakeholders view their locality. Viewed in comparative perspective, it becomes evident that these interests influence how individuals assemble to address community change.

We begin by discussing community. Through the interactional theory of community (ITC) (Wilkinson, 1991), it is seen not as objective, static, or necessarily harmonious, but rather as a dynamic product of continual negotiation through interactive processes in the community "field." Community is comprised of a "complete" local society comprised of social organizations/institutions that facilitate recursive interaction among inhabitants; social interaction on issues of local interest; and territory (ibid.) This third component of the ITC is viewed as the container in which recursive interaction occurs and the community field develops, a narrow and abstract conception that limits one's ability to treat the land³ as a well-integrated variable in the analysis.

Responding to this, we discuss an extension of the ITC that explicitly incorporates the land through the replacement of the relatively abstract, space-oriented *territory* with the more tangible, place-oriented *landscape* (Van Auken, 2007). This allows for a more holistic understanding of how a locality's physical surroundings both shape and become shaped by the decisions of institutional actors and local interactions. This

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² Our point of departure on the concept of place is Tuan's (1977) definition: a spatial setting that has been given meaning through the experience, social relationships, emotions, and thoughts of people.

³ We have chosen to generally use the term *land* rather than the problematic *nature*. Land is defined simply as soils, waters, plants, and animals (Leopold, 1968).

extension also enables the addition of greater specificity in regards to how and why collective action occurs in communities, which is the focus of the chapter.

Two of the primary channels through which people actively confront development pressure and community change are civil society and formal planning processes. According to the tenets of the ITC, to the extent that collective action in these social fields is oriented towards the general interests of the locality overall, it will contribute to the development of community. Wilkinson (ibid.), however, asserts that

Standing against the purpose of building a community field...are the purposes of individuals and groups who pursue private interests in the local arena. The interactional theory postulates no systemic or organic force to assure order, continuity, or balance in this turbulent setting (p. 91).

Public participation and the integration of civil society into more collaborative, decentralized forms of planning and management have been cited by many for their potential to enlarge the spaces for democracy and lead to better environmental stewardship, with implications that the adoption of such principles will create an interest-free zone.

Conversely, research has demonstrated the inherent complexity of attempting to democratize natural resource planning. As Hurley and Walker (2004) contend that "because it makes choices that determine how resources will be used, collaborative natural resource management is inherently political" (p. 737). Further, Lane (2003) asserts that "it is naïve to assume that merely enhancing the role of civil society will (in and of itself) ensure fairness and democracy in planning" (p. 368). Others argue that participatory planning can, in fact, serve to buttress the power of local elites.

Our case demonstrates that the defining interests that move local stakeholders to action need to be better understood, not only by place scholars but also by practitioners, whose efforts to mitigate conflict and make difficult decisions may be enhanced by such knowledge.

We explore these themes through an analysis of the discourse around key events and data from in-depth interviews of local stakeholders conducted in an American and a Norwegian amenity area. These places provide fruitful settings in which to examine the participation of local stakeholders in civil society and planning, the integration of these spheres, and the mechanics of collective action. Both of our case areas feature recent examples of land use controversy centered on the tension between preservation and development. More specifically, both the American and Norwegian cases involved recent referendums, one of the ways localities in the U.S. have chosen to inform decisions about natural resources management in lieu of participatory planning (Benjamin, 2004).

In Bayfield County, one community's voters used a mayoral election and referendum to shift power from pro-development actors to preservation-oriented actors. This was the culmination of contentious debate over the proposed sale of city-owned waterfront to a private condo developer. In the Norway case, along with the allocation of significant

space for new seasonal homes, a recently-adopted municipal land-use plan called for nearly one-fifth of the municipality's land area to be the site of a wind farm. After months of rancorous debate, a referendum about the wind facility was held. Along with examining these events, we will also compare and contrast the relevant civil society groups in both areas.

As alluded to, we frame the planning efforts and collective action described above as political economic struggles to determine the fate of local resources. Landscape is a resource of primary concern in rural amenity areas, and conflict often arises based on threats and opportunities related to private interests tied to the landscape. How can sociological theory aid in our understanding of what these interests are and what leads to group formation based upon them?

Davis (1991) combines theoretical strands from classical sociology in a framework that explains conflicts and cleavages in neighborhoods based on the pursuit of private interests (as also alluded to by Wilkinson). From Marx he derives the notion that objective, antagonistically relational interests are the basis for group formation and conflict, while from Weber he applies the idea that such interests may be inherent in the issues surrounding ownership and use of residential property. According to Davis (ibid.), "A better understanding of the conditions for collective action on a territorial basis begins with an understanding of the 'interest mosaic' that domestic property engenders" (p. 43).

There are two basic domestic property interests: accommodation and accumulation. These interests are based on the interest of stakeholders in the use value or exchange value of the property, and can be further subdivided into six "relational advantages" of domestic property (ibid.). Accommodative interests can be broken down into the categories of security (stability of tenure and physical safety); amenity (quantity and quality of one's living space); and, autonomy (control) in domestic property (ibid., my emphasis). Accumulative interests, on the other hand, can be distinguished by equity (unencumbered value in land and buildings); liquidity (income potential); and, legacy (inheritability) (ibid.). These interests are material, in that they originate in relations surrounding a physical unit – land and property used for shelter (ibid.). Davis further argues that,

These six advantages are objective in the sense that one's position in relation to domestic property carries a probability of particular benefits, a susceptibility to particular costs, and a propensity to act in certain ways that inhere in the position itself, regardless of whether the incumbent of that position is aware of this state of affairs (p. 56, emphasis in original).

Domestic property interests are also seen to be collective, social and locational, precarious and contentious (ibid.). Finally, Davis argues that people engage in collection action – latent interests become manifest – in response to threats to their interests or to take advantage of opportunities to enhance those interests.

In this chapter we present a version of Davis's framework that has been extended based on the particularities of rural amenity areas. In such places, while some local stakeholders are most concerned with sustaining a "living" community that will continue to provide job opportunities and housing options that they can afford, for others the defining interest is in their ability to profit from new development opportunities resulting

from increased demand for housing and commercial activity in the area. Still others are galvanized in defense of the land and amenities that define their quality of life.

We will argue that while categories like newcomer and long-timer are relevant in these rural amenity areas, domestic property interests are more important in inducing collective action and in influencing decision-making. We believe that the particular domestic property interests found in the two case areas can be clustered into three categories to form a rural property interest mosaic, as summarized in Figure 1.

[Accommodative Interests] [Accumulative Interests] Security * Liquidity \(\Delta \) Autonomy Equity Amenity egac_\ Quantity of Living Space Quality of Living Space △ ... Community Interests; * = defining interest - - - Place Interests; △ = defining interest _ _ Commodity Interests; Δ = defining interest

Figure 1: Rural Property Interest Mosaic

While this is an attempt to simplify a complex arena of social life, we believe it can aid in our understanding of collective action and landscape change in such areas. We argue that there is overlap between categories – community interests, place interests, and commodity interests – but that each has a defining interest inherently at odds with the others.⁴

Like they do in any other locality, residents of rural amenity areas act in collective fashion for many reasons, based on such factors as religion, race, gender, ethnicity, class, or common interests of various types. In regards to the shifting landscapes, demographics, and social relations of such places, however, we believe that a property interest mosaic such as the one proposed herein is analytically useful.

As we will elaborate upon in the chapter, this framework helps to explain the contentious nature of participatory planning, based on the struggle between competing property interest groups, and how participatory planning can exacerbate local conflict and produce a situation in which implementation of objectives from such

⁴ We will describe each interest group category in more detail in the chapter.

plans is a distinct challenge, due to political shifts related to those interests. It also helps to provide a rationale for the formation of particular types of civil society organizations and a guide for understanding the consequences of the decisions that result.

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COMMUNITY, PLACE AND DECISION-MAKING

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The term community is commonly invoked in the literatures on "place" and "natural resource decision-making." Upon careful examination of the place and decision-making research, though, it becomes increasingly evident that no shared theoretical foundation or common use of the word *community* exits. Such variations in conceptual orientations and use have led to a somewhat complex and cloudy knowledge base with respect to "community-place-and-decision-making" linkages. In this chapter, we articulate and apply principles from an interactional theoretical perspective of social organization, rooted in the writings of Harold Kaufman (1959; 1985) and Kenneth Wilkinson (1970; 1991) – and further elaborated upon by their colleagues and students – to the notions of community, place, and decision-making.

We begin our discussion with the concept of place. Our point of departure is that place is a necessary but not sufficient condition for community. Place, as we show, has conventionally been an essential component in the study of community. As numerous authors have noted (e.g., Day 2006; Wilkinson 1991), place is where the search for community begins. Wilkinson (1991: 23), for example, asserted that "[t]he local territory ... is a logical place to begin the search for community, even if the study takes one beyond the locality as well." Day (2006: 32) articulated that in community research "[p]laces are singled out for study because they appear to constitute viable communities, and once they are investigated and documented, the findings are read as showing precisely what a real community is like."

After informing the reader that we are restricting the domain of our work to "place-based communities," we then pose the question "what makes a place a community?" Before attempting to answer that question, we review key elements inherent in the notions of place and community. Building upon Gieryn (2000), we state that, at a minimum, place has three essential features. These include: (1) geographic location; (2) material form; and, (3) investment with meaning and value. Then, rooting to Kaufman (1959, 1985) and Wilkinson (1970, 1991), we assert that there are three elements inherent in community. These include: (1) locality; (2) local society; and, (3) locality-oriented social interactions. We elaborate on each of these place and community features.

Continuing with the "what makes a place a community" idea, we then introduce and define the notions of a social field and a community field. Both types of fields are fundamental constructs in interactional theory. As suggested by Kaufman (1959, 1985) and Wilkinson (1970, 1991), a social field is an unfolding, loosely bounded, constantly changing, interconnected process of social interaction displaying unity through time around an identifiable set of interests. As a process, a social field is characterized by a sequence of actions over time carried on by actors generally working through various associations. Actions refer to the projects, programs, activities, and/or events in which actors and associations are engaged. Associations refer to formal organizations and

informal groups. Actors refer to the leaders and other persons participating in associations and actions.

We explain that in any given locality there are multiple social fields, some of which are more locality-oriented than others. We note that each field is generally marked to a greater or lesser extent by its own identity, organization, core interactional properties, and set of specific and/or institutional interests. Examples of common social fields found in many localities are provided. Included here are those pursuing interests in education, local government, environmental protection, faith-based services, economy, and recreation.

We then explain how the potential to form a "community field" exists when social fields in various interest areas converge or overlap. Following Kaufman (1959, 1985) and Wilkinson (1970, 1991), we assert that the community field is a locality-oriented social field that is related to, yet distinguished from, other activity fields in a local population. Like other social fields, the community field consists of actors, associations, and phases of action. However, unlike most social fields in a locality which tend to engage in special interests, the community field pursues the interests of the general community. We avow that the central feature that distinguishes the community field from other fields is the generalization of locality-oriented actions across interest lines. The process of generalization involves actions that are expressed through the interests of a broad range of actors and associations, are clearly located within a locality, involve a substantial proportion of the local population as participants and/or beneficiaries, are conducted by local actors and associations, are aimed toward changing or maintaining the locality, are carried out in an organized or purposive manner, and have coordination among fields of interest as a major objective. Such actions contribute to the emergence of the community field in local settlements.

We conclude this section on "what makes a place a community" by noting that community, viewed here as a generalizing social field, is not a given. A community, as we define it, emerges in a locality and persists as long as the local citizens ensure its survival.

Our attention then turns to the notion of decision-making. Decision-making refers to the process of making a decision. A decision can be defined as the act of making up one's mind. It has a "task orientation." A process can be defined as a continuous behavior, action, or procedure. It has a "structure orientation." Here, we are particularly concerned with natural resource-related decision-making in the context of place-based communities. As a point of departure in this section we begin with a quote from Bob Lee and Don Field. In the chapter on "Community Complexity: Postmodern Challenges to Forests and Natural Resource Management" in their edited book titled Communities and Forests: Where People Meet the Land, Lee and Field (2005: 291) stated:

... today, policies are legitimated by chartering scientific studies and policy and management decisions by developing 'science-based plans.' Communities, especially territorial communities, are the recipients of 'rational' decisions made by experts – what we today often refer to as the many 'ologists': biologists, ecologists, sociologists, ornithologists, etc. Professional decision makers may solicit community 'input,' and make decisions in the interests of interested

publics, including communities. Community participation is often avoided because it is replete with the sorts of 'messiness' that was to be supplanted by rationality and science-based decisions.

Our attention then turns to the contemporary natural resource management decision-making concepts, such as "community-based resource management," "community-based collaboration and co-management," and "public participation in resource management decision-making." We question the degree to which these approaches are explicitly connected to a theory of community organization. What do these approaches truly say about the community as an important unit of social organization ... and the way the community affects the emergence, maintenance, and transformation of natural resource decision-making? What do these approaches say about those individuals who see the place (and the natural resources located therein) for its use value, its exchange value, or its combination of both?

Good theory, as we proclaim, leads to good application. Our overall intent in this chapter is to explain how an understanding of the assumptions, propositions, and concepts of interactional field theory have the potential to enhance the effectiveness of natural resource decision-making at a community level. We then propose and illustrate a model of place-based community decision-making rooted in the theoretical underpinnings of the interactional field perspective. The model is an adaptation of Theodori's (2007) recent guidebook to community-based planning, written primarily for county Extension faculty. The proposed model, which is grounded in community theory and empirical research, includes five common phases involved in the process of community action, as well as an important sixth stage.

The six phases include: (1) initiation, (2) organization of sponsorship, (3) visioning, goal setting, and strategy formation, (4) recruitment, (5) implementation, and (6) evaluation. Initiation involves generating widespread consciousness of an issue among various fields of interest in a community. Organization of sponsorship involves the formation of multi-interest networks and inter-organizational linkages to coordinate and integrate actions within and across the various social fields. Visioning, goal setting, and strategy formation involves developing a vision, short-term and long-range goals, and strategies that transcend the special interests of particular social fields. Recruitment involves encouraging participation, building cohesion, developing new leaders and leadership skills, and coordinating actions. Implementation involves applying resources and employing strategies to build, strengthen, and maintain the structure of the community field. And, evaluation involves identifying and celebrating specific outputs and outcomes of the process.

We conclude the chapter by explaining why an interactional theoretical perspective of social organization has much to offer to the study of place and natural resource management decision-making.

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LAKE CHAMPLAIN BASIN SUMMARY

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Fitting Place to Decision-making, Extended Abstract Draft

Commentary on the state of the practice that critiques and suggests new directions for integrating place, decision-making, and relevance to planning.

Inspired decision-making in the Lake Champlain Basin: integrated, place-based alternatives to legislation and regulation rooted in engaged citizen and resource management approaches to watershed protection

Abstract

Decision-making challenges and opportunities emerge when jointly managing international waters shared by two countries and two states with considerably different political and governmental systems. Lake Champlain's vast watershed is shared by the states of Vermont and New York in the United States and the Province of Quebec in Canada. Transboundary decision-making is characterized by consensus reached through a continuous sequence of nonbinding, nonregulatory environmental agreements revolving around engaged government resource management agencies integrated with an engaged and educated citizenry.

Since the historic 1988 Memorandum of Understanding on Environmental Cooperation on the Management of Lake Champlain, 16 additional agreements have been signed—averaging nearly one per year. They range from joint declarations and watershed plans to phosphorus standards and toxic spill responses. They are renewable, encompassing agreements bearing the support and participation of state, provincial, and federal agencies; local government; and businesses with a very strong citizen component. In 2008-09, four of these agreements are slated for renewal.

This progression of cooperative agreements falls under the auspices of the Lake Champlain Basin Program, a quasi-governmental, public-private partnership among Vermont, New York and Quebec that coordinates Lake Champlain's long-term management plan, Opportunities for Action: an Evolving Plan for the Future of the Lake Champlain Basin.

The Lake Champlain Basin Program achieves significant watershed improvements through its consensus-based, decision-making policies bolstered by state-to-state, state-to-province agreements. This incremental approach, steeped in multi-level partnerships and institutions, epitomizes the theory of natural resource regimes which emphasize roles of intermediate institutions in environmental management.

Use of nonbinding, renewable agreements more easily bridges differences among jurisdictions, whether interstate, intrastate or international. Additionally, such

agreements can be updated more immediately as new information and technologies emerge. These agreements can be assembled more quickly than pursuing a traditional regulatory or legislative response. It is precisely the voluntary nature of these agreements and their successes that has captured the attention of other basins worldwide as a model for replication and reaching agreement on difficult issues. Due to this integrated decision-making model, UNESCO designated the Lake Champlain Basin as one of seven demonstration watersheds within its Hydrology, Environment, Life, and Policy (UNESCO HELP) program in 2005.

Lake Champlain Basin description and place names

Lake Champlain's vast watershed is shared by Vermont, New York and Quebec. The basin extends from peaks of the Adirondack Mountains in New York east towards the Green Mountains in Vermont and north into Quebec. Through the Richelieu River, Lake Champlain shares the St. Lawrence River drainage with the Great Lakes. From north to south, the lake spans 193 km, yet it is surprisingly narrow—only 19 km at its widest point. Its greatest depth is 122 m and the watershed is 21,326 km².

Lake Champlain's long length and narrow width, in addition to many bays and 70 islands, contribute to the lake being divided into five major segments and many smaller bays. Each segment has unique physical characteristics and different land uses in its surrounding subbasin which influence the water quality of that segment. The public is conversant in and identifies with names of the five major segments: North Lake, South Lake, Broad Lake, the small Malletts Bay, and the interestingly named Inland Sea. The North Lake, which includes Missisquoi Bay shared with Canada, and South Lake have the most eutrophic waters due to predominantly agricultural land uses, although lakewide, urban land uses contribute a higher percentage of phosphorus to the lake. Consequently, many concerns for Lake Champlain are location-specific. While extensive blue-green algae blooms are a serious problem in Missisquoi Bay, they have not proved problematic in the South Lake. For phosphorus targeting purposes, especially within the federally required Lake Champlain Phosphorus TMDL, the lake basin is further subdivided into 13 lake segments and 19 subwatersheds or catchments.

A multitude of citizen groups have formed in and around these major lake segments. In an interesting juxtaposition, many watershed residents identify themselves by the place names which are now synonymous as the most polluted regions of the lake, such as the South Lake, Missisquoi Bay, and Carry Bay and the Alburgh Passage.

According to 2000 United States and Canadian census data, the Lake Champlain Basin population is 571,000 people, and as population climbs, evolving impacts on the lake continue to cause concern. The overall watershed land cover is about 66% forested, 14% agricultural, 5% urban and suburban, and 15% water and wetlands.

A new (2007) land use and land cover study of the basin indicates that urban and suburban land (only 5% of land cover) contribute about 46% of phosphorus runoff to Lake Champlain overall and agricultural lands contribute about 38%. However, these

proportions vary significantly among the various subwatersheds. Agricultural land use is still the greatest contributor of phosphorus (about 70%) in the Missisquoi Bay subwatershed. While only 7% of the watershed lies in Quebec, Vermont and Quebec share Missisquoi Bay, the single most impaired region of Lake Champlain. Therefore, Quebec's participation is crucial to the health of the rest of the lake.

<u>Lake Champlain Basin Program—A model for originality and innovation in stakeholder</u> involvement

The Lake Champlain Basin Program is a quasi-governmental, public-private partnership among Vermont, New York and Quebec with federal funding that coordinates Lake Champlain's long-term management plan Opportunities for Action: an Evolving Plan for the Future of the Lake Champlain Basin. The Lake Champlain Basin Program achieves significant watershed improvements through its consensus-based, decision-making policies supported by state-to-state, state-to-province agreements. This incremental approach emphasizes partnerships, local actions and involvement of citizens. The Lake Champlain Basin Program offers a proven, original process that can be transferred to other basins.

Inclusive committee structure: The Lake Champlain Basin Program committee structure offers many opportunities and varying roles for stakeholder participation. Multiple stakeholders from the three jurisdictions of Vermont, New York and Quebec represent local, state, provincial, and federal partners. There is a high level of citizen involvement. The Citizens Advisory Committees of Vermont, New York and Quebec are independent committees representing recreation, tourism, agriculture, business, and cultural heritage interests, environmental advocacy groups, and legislative leaders. They advise the public about lake issues and listen to citizen concerns. The Basin Program also has a Technical Advisory Committee, Education and Outreach Committee and a Cultural Heritage and Recreation Advisory Committee. All six advisory committee chairs have a seat on the Lake Champlain Steering Committee, the governing body for the Lake Champlain Basin Program.

<u>Partnerships:</u> Successful implementation of Opportunities for Action is achieved by developing many partnerships. As a neutral party with the participation and support of scientists, policymakers, citizens, and resource managers, the Lake Champlain Basin Program transcends litigation, political elections, and regulation to offer a truly integrated partnership-based dialogue for solving difficult problems. To implement the plan, the Lake Champlain Basin Program makes grant awards to citizen, watershed, municipal, government, and business groups. Since 1992, more than \$3 million (US Dollars) have been spent on over 600 projects to reduce phosphorus, prevent the spread of invasive aquatic species, improve watershed education, and attain lake improvement goals.

<u>Consensus:</u> Consensus and trust-building have helped Vermont, New York and Quebec leaders overcome policy conflicts. A consensus approach to decision-making creates a win-win atmosphere where minority opinions are usually incorporated into decisions that pass by majority vote. This process encourages open and public discussion, so that committee members can freely explore decisions before making

commitments. While the consensus process minimizes conflict, it does require that they share common goals. The consensus approach gives participants a meaningful role in developing viable solutions and results in group ownership of decisions unattainable through other means.

Effective framework: The Lake Champlain Basin Program forms an effective framework for water policy leaders, water resource managers, and scientists to work collaboratively. This proven framework defines watershed management issues according to the needs of the watershed residents or "users." A user-driven approach requires active involvement of policy and citizen groups to ensure scientific investigations will benefit community needs. Because policy leaders and resource managers contend with legal, institutional, regulatory, and economic interests, they need to understand which scientific information is most needed and communicate these needs to scientists. The Lake Champlain Basin Program annually funds more than \$500,000 (US Dollars) for research and education in the basin. Trend analysis of long-term lake monitoring data allows scientists, resource managers and policy leaders to determine whether management goals and targets are on track and being met.

<u>Place-based collaboration: engaged citizens and engaged resource management agencies</u>

Background: The Lake Champlain Basin Program's incremental, non-regulatory approach provided the supportive framework for the Governor of Vermont to initiate the Clean and Clear Action Plan in 2003 to find the estimated \$142 million (USD) that will reduce phosphorus pollution to Lake Champlain. In 2007, the Vermont Agency of Natural Resources initiated an agency-wide reorganization designed to better integrate disciplines and expertise among environmental conservation, fish and wildlife, and forests and parks departments and be more responsive to public interests. The very highest priority and first action was to designate the new "Center for Clean and Clear" to not only implement Clean and Clear Action Plan funding, but also to target and accelerate the clean up of northern Lake Champlain, the single most polluted reach of the lake. (The author is a member of the new Center for Clean and Clear team).

Center for Clean and Clear and the Northern Waters Partners: While a soon to be mobilized Vermont Agency of Natural Resources Center for Watershed Management will cover watersheds throughout Vermont, the Center for Clean and Clear is solely focused on the North Lake. This designation is largely due to the mobilization of several organized yet very small citizen groups (ranging in size from a few dozen to a couple hundred members). In 2006, seven of these smaller groups joined into a larger collaboration called the Northern Waters Partners. The larger group includes the Missisquoi River Basin Association, Friends of Missisquoi Bay, St. Albans Bay Areawide Association, Franklin Watershed Committee, Northern Lake Champlain Committee for Carry Bay and the Alburgh Passage, and Lake Carmi Association. Their very kitchen meeting front porch style coalition has not only unified them into an educated, savvy entity, but they have been extremely successful in gaining recognition and commitments from the Vermont Legislature and Quebec provincial governments. Even the federal government has become more intimately engaged when the USDA Natural

Resources Conservation Service created in 2008 the citizen collaborative regional plan entitled the *Missisquoi Basin Areawide Plan*. To better meet the needs of the Northern Waters Partners, the Center for Clean and Clear opened a small office in northern Lake Champlain which decentralizes resource management from Vermont Agency for Natural Resources headquarters or regional offices elsewhere.

Blue-green algae citizen and government monitoring: Given Northern Lake Champlain's eutrophic conditions, it has also become plagued with blue-green algae blooms (although interestingly, the South Lake remains immune to date) which have seriously compromised recreation uses and property values. A unique public notification system has been developed and continues to be tweaked that involves the Lake Champlain Basin Program, University of Vermont, Vermont Agency of Natural Resources, Vermont Department of Health, Quebec Ministry of Sustainable Development and Environment, New York State Department of Environmental Conservation, and most importantly citizen monitors. While Vermont and New York last year adopted identical standards of blue-green algae thresholds to close beaches, Quebec uses a different standard. Confusion results from situation when Quebec closes its beaches on Missisquoi Bay and Vermont does not. The public notification starts with sample results that are shared among the various jurisdictions. While the states monitor blue-green algae in the lake, shoreline sampling is covered by citizen monitors whose data is vital to understanding where blooms are moving and which shoreline areas are impacted. The monitors are trained by the University of Vermont, the data is analyzed by the State of Vermont, and the Vermont Department of Health posts the data and initiates the public notification system with its New York and Quebec counterparts. This year, Vermont Department of Health personnel began to learn French to better communicate with their Quebecois partners.

LESSONS LEARNED TO BE SHARED WITH OTHER LAKE AND RIVER BASINS

- A consensual policy style versus an adversarial policy style results in reliable and evolving commitments by Vermont, New York and Quebec. Nearly one agreement has been signed each year on average among two or three of the jurisdictions which reaffirms their continuing commitment towards shared management of the Lake Champlain Basin. This approach encourages a higher level of participation in watershed cleanup activities than required by bureaucratic regulation.
- Less regulation and renewable, flexible agreements result in substantial financial commitments by Vermont, New York and Quebec. In partnership with the Lake Champlain Basin Program, the three jurisdictions have invested millions of dollars annually, primarily to reduce point source phosphorus pollution and cleanup hazardous waste dumps, and also for aquatic nuisance species control and water quality research. Partnering with the basin program allows the three jurisdictions to proactively plan lake and watershed improvements for their respective geographic regions without being required to do so.

- Political will supports sustainability of the Lake Champlain Basin Program and observance of its operating principles. The signatures of the Governors of Vermont and New York, Premier of Quebec and the Regional Administrators of the United States Environmental Protection Agency give the Opportunities for Action management plan significant credibility. The nonbinding, voluntary and incremental aspects of signing agreements encourages their participation while still allowing for different implementation styles and creative thinking such as Vermont's Clean and Clear Action Plan, New York's Clean Air/Clean Water Bond Act (New York State, 1995), and Quebec's new, model, extensive riparian buffer policies.
- Leadership by key individuals serves an important role in solving transboundary challenges. The Lake Champlain Basin Program process involves multiple committees, task forces and public meetings. Participation by high-ranking individuals, such as city mayors, executive directors, legislators, and natural resource policy leaders garners support within larger audiences and attracts significant funding and far-reaching collaboration.
- A built-in renewal schedule for voluntary bilateral and trilateral agreements results in immediacy and accountability. Voluntary agreements evolve more rapidly than traditional regulation and legislation. Regularly revisiting agreements allows emerging scientific information and public needs to be incorporated quickly to improve accountability. Currently, the emergency spill response and permit exchange agreements, which lack built-in renewal schedules, need updated procedures. There have been a few incidents on Lake Champlain where either the wrong individuals were contacted regarding an emergency spill, or new staff did not follow the procedure because it was out of date (Stickney, 2003; 2006).
- "Leapfrogging" or developing agreements incrementally keeps them linked together and looking forward. The original 1988 Memorandum of Understanding called for a cooperative approach to lake management and for in-lake phosphorus criteria to be developed in the future. The 1993 Water Quality Agreement established in-lake phosphorus criteria and called for phosphorus loading targets to be developed in the future. The 1996 Phosphorus Reduction Agreement established phosphorus loads and called for Vermont and Quebec to divide responsibility for reducing phosphorus in Missisquoi Bay. The Missisquoi Bay Agreement established the division of responsibility between Vermont and Quebec. Each agreement made progress and set a future target that was met within a few years (Stickney, 2003; 2006).

SENSING VALUE IN PLACE: EXPERIENTIAL PRACTIVE AND THE DECISION-MAKING PROCESS

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Extended Abstract (July 10, 2008)

The concept of value is implicit in the act of decision-making. Indeed, without some notion of value there would be no reason for making a decision and no basis for selecting one alternative outcome over another. At the same time, when we talk about place attachment and sense of place, it seems clear that we are really talking about ways in which people value places. Therefore, the concept of value provides a natural connection between place and decision-making. The question motivating this book could be framed as, "How can we ensure that the value of place will be represented in the decision-making process?"

Value is a complex concept. The word value is used in many ways and can mean many different things. Brown (1984) pointed out three basic ways in which the word value has been defined and presented a conceptual framework for understanding how these different value concepts are related. In this chapter I will build on Brown's framework and try to suggest some ways of adapting it to make it more useful as a basis for bringing the value of place into the decision-making process.

Brown considers human preferences to be the origin of value, so all of his value concepts are preference-related. He identifies 3 realms of value: the conceptual realm, which deals with the basis of preference; the relational realm, which deals with the act of preferring; and the object realm, which deals with the result of preference. Each of these realms has its own distinct concept of value. In the conceptual realm, value is defined as an enduring concept of the good or the preferable, which is assumed to motivate people's choices and actions. Brown calls this held value. In the object realm, value is defined as a behavioral (verbal or nonverbal) expression of the relative importance or worth of an object within a particular context. Brown calls this assigned value. In the relational realm, Brown defines value as the feeling or experience that emerges from a person's preference for an object in a given context. He does not, however, give a name to this third kind of value. In this chapter, I will refer to value in the relational realm as felt value.

Brown assumes that human preferences originate from held values, which give rise to felt values, which in turn result in assigned values. He regards felt value as merely an unobservable, intermediate step along the linear, causal pathway from held value to assigned value and therefore does not give much attention to it (Figure 1). Decision-making methods based on this understanding of value typically focus on the two endpoints of the causal pathway, seeking to specify a predictive relationship between people's held values and their assigned values for particular objects. One widely-used approach for doing this involves describing objects or decision outcomes as composed of a set of attributes (or features, or components). A weight is assigned to each attribute, presumably reflecting a person's or group's held values, and the weighted sum of the separate attributes for an object is used to predict the assigned value that

people would give to the object. (Figure 2). This general approach is the basis for many decision-making tools, such as cost-benefit analysis and conjoint analysis.

Felt value plays no explicit role in this multiattribute decision-making approach. Value is treated as an abstract quantity rather than as a subjective feeling. Once the importance weights are determined, a decision can, in principle, be made simply by carrying out a numerical calculation. The actual experience of liking or disliking, accepting or rejecting, is passed over and replaced by a mathematical formula or model for predicting assigned values. This approach, while very useful in many kinds of decision situations, may not be well-suited for decision-making about place. It implies that a place is a bundle of attributes or components whose separate values can be added up to determine the value of the whole. Research on sense of place, however, suggests that place is a holistic, dynamic, experiential phenomenon that cannot be reduced to such a simple, additive model (Patterson et al. 1998; Bott, Cantrill, and Myers 2003; Brooks et al. 2006). In other words, a place is not just the sum of its parts. The unique, hard-to-define, gestalt qualities of places as people actually experience them tend to drop out of such an analytical decision-making process.

How can the holistic, subjective experience of place be incorporated into the decisionmaking process? To address this question, the role of felt value in Brown's (1984) scheme needs to be reconsidered. From an experiential perspective, felt value is not merely an unobservable, intermediate step between held values and assigned values. It is the immediate, subjective feeling of the importance, worth, or significance that something has for an individual, and is in fact directly observable to the person who experiences it. Therefore, we can use methods from phenomenology and experiential psychology to study and work directly with felt value. Observing how felt value actually shows up in our experience might lead us to reconsider Brown's picture of the relationship between the 3 realms of value as well. Brown suggests that held values give rise to felt values and assigned values in a linear sequence. Experientially, however, it might be more accurate to say that felt value is the basis from which both held values and assigned values emerge. That is, our concepts of what is preferable and our assessments of the worth of specific objects both arise from our immediate feelings of value. But the opposite is also true; when we form general ideas about what is desirable and when we make assessments of the worth of specific things, our underlying feelings of value may change as a result. So the relationship between the three realms of value is not as linear as Brown pictured it, but is more interactive and dynamic (Figure 3).

At the same time, we also have the ability to think and reason logically about our values. At a cognitive level, we can make logical inferences of what our assigned values ought to be based on our held values, and we can use those deductions to guide our decision-making. But it sometimes happens that the assigned values we deduce logically from our held values don't match up with our 'gut feelings' about the options we are choosing among. When that happens, it indicates that something at the feeling level has been missed or passed over by our rational thought process. To understand how this can happen, it is useful to make a distinction between explicit and implicit levels of awareness (Figure 3). Held value and assigned value are both at the explicit level. We can express them in words, name them, communicate them, and think logically about them. Felt value, however, is at the implicit level, which means that although we experience it and it plays a vital role in everything we do, we generally do

not have it in words or explicit concepts. The implicit level is like a backdrop or background of feeling that stays on the fringe of awareness and is often overlooked.

Place attachment, I believe, is a phenomenon that goes on primarily at the implicit level. Sense of place is an implicit, preverbal, bodily sense of the kind studied by experiential psychologists and philosophers (Gendlin 1996, 1997; Hendricks 2004). The implicit dimension embodies a great deal of information – much more information than can be expressed in words and concepts at the explicit level. Thus, the felt sense of a place and of its value to a person is more intricate than can be captured in a multi-attribute utility model. The felt value of a place is not determined by its rankings on a pre-specified set of attributes. Instead, relevant attributes emerge from a person's holistic felt sense of value and may change depending on the context.

To include place in decision-making, we need a decision-making process that does not by-pass felt value and does not ignore or lose touch with the implicit level of experience that underlies held and assigned value. Our decision-making needs to include some means for directly connecting with and working with this implicit, felt level of experience. Gendlin (1981) and his colleagues have developed experiential practices that people can use to access the implicit level of experience and to work directly with what he calls "the felt sense" of a situation or concern. He defines a felt sense, as

... a bodily awareness of a situation or person or event. An internal aura that encompasses everything you feel and know about the given subject at a given time - encompasses it and communicates it to you all at once rather than detail by detail (Gendlin 1981, p. 32).

Gendlin found in his research on psychotherapy that when people attend to their felt sense of a situation in a particular way, they can experience a shift in the felt sense that brings new insights and changes the way they feel about and relate to the situation. Based on that, he developed an experiential practice called Focusing to teach people how to tune into this level of awareness.

Focusing and similar experiential practices have been applied to enhance the decision-making processes of people in their personal lives and in fields like business, medicine, and environmental management. These practices are based in the experience of the individual, but at the same time they have an inherently social aspect. The presence of another person (a listener or partner) is often found to facilitate the practice, allowing an individual to go deeper into their own felt sense of an issue or problem. This form of interpersonal facilitation has become an important part of the training in these practices. Out of this inherent social dimension of experiential practice, innovative group and community approaches to decision-making and conflict resolution are being developed (for example, McGuire-Bouwman 2007; McGuire 2007).

Based on my own experience, I think that experiential practices like Gendlin's Focusing could be effective for working with the felt sense or felt value of places (Schroeder 1990). Attending to the implicit felt sense of a place may lead an individual to new insights into how and why the place has value for them. Authentic verbal expressions of held values and assigned values that originate from a person's felt sense of value may "carry forward" an initially inarticulate, implicit sense into a clearer and more differentiated experience of value. In a decision-making process incorporating a holistic

sense of place, felt value would not be replaced by an abstract formula or decision algorithm. The process would invite people to explicate their own implicit felt sense of the value places have for them and would provide opportunities for them to check in with their felt sense of how the decision process is going. The practices developed by Gendlin and his colleagues include guidelines for listening and group process to maintain a supportive and safe environment for expressing whatever emerges from this inward awareness.

For example, McGuire-Bouwman (2007) describes a structured group process based on Gendlin's Focusing practice that was developed for collaborative, consensual decision-making in support groups. The same process is presented in a somewhat modified form for use in hierarchical organizations (McGuire 2007). The process assumes that all group members have learned and are willing to use experiential Focusing and listening practices as a basis for interactions in the group. Leadership roles of agenda-setting, time-keeping, process-monitoring, and recording are shared among group members. The group process is designed to provide individuals with opportunities to go into their felt sense of the topic under discussion, to speak from that felt sense without interruption, and to be assured that other group members have listened and accurately heard what they have said. Alternative procedures are available to work through conflicts and other obstacles to reaching consensus. Applying this kind of approach in a place-based decision-making context ideally would enable people to stay in touch with the implicit felt value that underlies the issues and choices being debated, until a decision that respects everybody's sense of place can be found.

Adapting a collaborative decision-making process like McGuire's (2007) to an agency land-use decision-making context might be quite challenging, since it requires all participants to have a high degree of trust, a willingness to step back from entrenched positions, and a commitment to really listen to those with whom they may disagree. Everyone involved in the process would have to learn the experiential practices on which the process is based and be committed to using them in reaching a group consensus. If successful, the result could be a decision-making process that is open, dynamic, creative, and grounded in an authentic, felt sense of the places about which decisions are being made.

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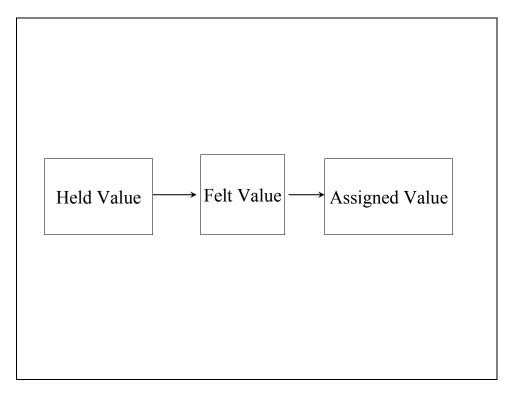


Figure 1. Brown's (1984) depiction of the relationship between 3 types of value.

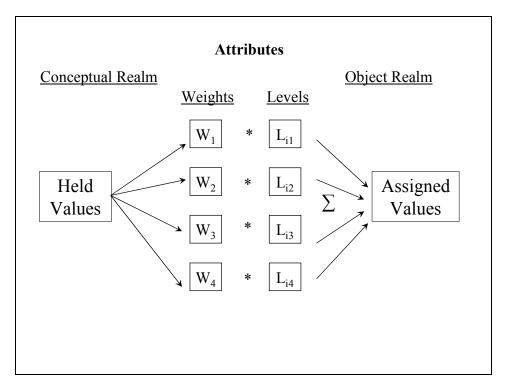


Figure 2. The multiattribute decision model.

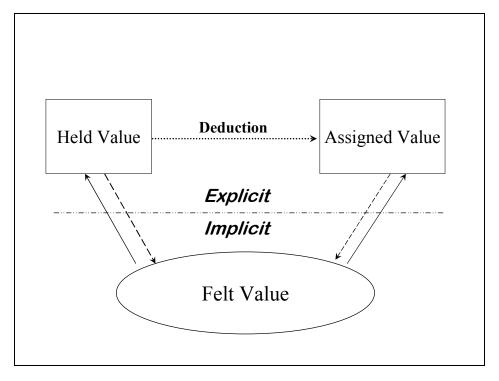


Figure 3. A revised depiction of the relationship between 3 kinds of value.

PLACE, SCALE, AND DECISION-MAKING: INSTITUTIONAL CHALLENGES FOR MANAGING MULTI-SCALED NATURAL RESOURCE SYSTEMS

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Introduction: Fish, Fire and Fourteeners

This paper begins by drawing attention to a recurring theme I have observed over the course of participation in three recent meetings all dealt in some way with the challenge of bridging the science-practice gap. These meetings dealt with a range of issues from managing endangered fisheries to future scenarios for fire management, and designing regional approach to managing Colorado's high elevation wilderness trails. At first blush these various meetings would not appear to have much in common. But from a social science perspective what appears to managers as diverse substantive issues (fish, fire and so forth), have common institutional underpinnings. What was similar in all of three recent consultations was that the decisions managers face are increasingly made more complex by our increasingly sophisticated scientific understanding of the multi-scaled, dynamic context of complex social and ecological systems. The more science reveals the complexity of the systems we manage, the more complex and intractable are the decisions managers face, and the more they look to scientific information to deal with that complexity. Ironically in the search for better science to reduce uncertainty, science produces ever more complexity and uncertainty. To better illustrate let me describe some of what I heard at the "Fish and Fire" meeting.

This meeting brought together scientists from several federal agencies to respond to managers needs for information to help them make decisions about the use, suppression, and/or prevention of wildfire in riparian areas, especially when they threaten endangered fish species. There was a lot of talk about dynamic landscape processes and what constitutes a resilient landscape. The reason managers keep calling for more or better scientific syntheses and decision support systems is that they simply can't absorb all the nuance and complexity of what scientists are learning about ecosystems and apply it to a specific decision. From the fire management perspective, it wasn't all that long ago that we believed fire management was a simple problem – put it out before 10am. Likewise with fisheries, at one time the idea was that streams needed to be maintained in certain conditions (temperature, turbidity, woody debris and so forth). But listening carefully to the [bio/ecological] scientists own words I found they were pointing out ever greater complexity of the phenomenon (patchy, multiscaled, dynamic landscapes) in which the right prescription for any one stream network was elusive if not indeterminate. According to some of the ecologists at the meeting, no singular, particular riparian condition could be described as necessarily healthier than another because the viability of endangered fish populations actually hinges on dynamic spatial variety in which some streams are in the process of becoming better habitat for a given species and some streams worse habitat. And if you take the culverts out (a metaphor for things that disrupt the movement of fish populations) to

increase the connectivity of streams (ostensibly a good thing for the survival of T&E species), you also make it easier for invasive species to spread. What's a manager to do? I came away thinking that the problem managers and scientists overlook is that their demands for more science (and more integrated science and decision support) – whether to perfect decisions or simply protect decision makers from lawsuits – is built on a false and largely unexamined assumption that more science will make decisions not only better, but easier, more obvious, and more politically defensible.

Why Science Fails to Simply Decision Making (The Limits of Progressive/Scientific Management)

The idea that science can perfect environmental decision making may be taken for granted in the cultures and institutions of environmental management, but it has received considerable scrutiny among social scientists. For example, in Collapse of Complex Societies, Tainter (1988) looks at ancient societies to develop the argument that knowledge of complex systems tends over time to outstrip our institutional capacity to manage these systems. The cost of problem solving generally increases and the benefit decreases as the easy solutions are replaced by difficult solutions. Because human societies tend to apply the easiest (cheapest) solutions first, over time problem solving becomes progressively more costly (that is we experience a diminishing return on problem solving – sometimes to the point of collapse or the deliberate adoption of simplification). Sometimes societies delay collapse by subsidizing complexity (what Tainter describes as complexification) through developing new resources (historically through territorial/spatial expansion) and more recently through fossil fuels (which appears to have reached its "peak"). But even if we can subsidize complexity to some degree, the situation still leaves the decision maker with the cognitive challenge of complexity (the need for decision makers to synthesize and integrate the exponential growth of knowledge at multiple scales).

Using a more contemporary political science approach, Sarewitz (2004) argues that science makes environmental controversies worse for three reasons: (1) it supplies contesting parties with their own bodies of relevant legitimate facts; (2) the necessity of looking at nature through a variety of disciplinary lenses brings with it a variety of normative lenses; and (3) scientific uncertainty is for a lack of scientific understanding but a lack of coherence among competing scientific understandings – amplified by the various political, cultural, and institutional contexts within which the science is carried out. In another example, van Wyk, et al. (2008) highlight the persistence of a contextual/cultural gap between information providers and information users as reasons that scientific information fails to be incorporated into decision making. Social analysis of the science-mangers nexus suggests that complexity decreases institutional efficiency and increases scientific uncertainty and amplifies policy conflict.

As some have argued, progressive era institutions of governance were built on a set of assumptions that are not well suited to modern social-ecological systems theory with its emphasis dynamic, multi-scaled complexity. A growing body of literature in sociology (Urry, 2003) and public administration (Goldsmith & Eggers, 2004; Pierre, 2000; Pierre & Peters, 2005; 2000; Rhodes, 1997) has begun to focus on the governance of such complex systems. These emerging theories of governance start by recognizing that much of task of governance lies outside of formal bureaucracy and involves complex

linkages and collaboration among multiple public and private organizations. The challenge of governance increasingly emphasizes the need to reconcile traditional top-down hierarchical management built on vertical lines of authority (as exemplified in Progressive Era notion of technical expertise employed in the public interest) with emerging complex, social networks of actors, stakeholders and governmental and non-governmental organizations dominated by horizontal lines of interaction.

How can place help us?

As a way of seeing and thinking about the world place offers a more holistic and embedded view of socio-ecological reality, which can help to balance a longstanding tension in Western thought between universalist and particularist views of knowledge. Specifically, place helps to address the disciplinary fragmentation of knowledge, connect empirical and normative lenses, bridge the epistemological divide between local/contextual knowledge and global/generalizable knowledge and organize and validate knowledge originating in a bottom up synthesis of networks of actors. Building on Robert Sack's relational model of place in Homo Geographicus (1997), I offer a three part definition of place as it relates to natural resource decision making. The most familiar is ontological place, typically conceived as a location of sentiment and symbolism, that is, a socially constructed site that organizes and constitutes human social relations and meaning. The second part is epistemological place or place as a perspective and way of knowing that emphasizes context (situatedness) and seeks to combine objective (scientific) and subjective (local) knowledge. The third part, and most closely tied to decision making, is axiological place. Axiological place focuses on prescriptive statements or valuations of place. This framework is then discussed in relation to emerging ecological and social theory of complexity to suggest an alternative framing for understanding the science-practice relationship. I develop the argument that the knowledge and wisdom required to manage complex ecological-social systems is not likely to emerge out of top-down expert driven knowledge systems (which become too unwieldy and expensive) but through the combined and less formally coordinated efforts of more embedded practitioners (managers) learning though their own local efforts. In other words the future of decision making and problems solving is more likely to organized and directed from an epistemological position of betweenness with stronger engagement from the bottom up in which practitioners play a more prominent role in the production and validation of knowledge.

Social Science for Sustainable Problem Solving

Drawing on Bent Flyvbjerg's book *Making Social Science Matter* (2001) this chapter concludes with a discussion of some of the characteristics of knowledge that matters. A key argument of Flyvbjerg is that social science should not try to emulate natural science by trying to build predictive models, but instead focus on case study knowledge, which typically reveal "practical wisdom" emphasizing value rationality and power rather than the maximization of specific outcomes or objectives (typically prescribed from above). More socially and ecological integrated knowledge will not result from social science increasingly emulating the natural science's quantitative and

mechanistic view from nowhere, but by natural science adopting a concept of nature that emulates the social realm as active, creative, and agentive (closer to somewhere). This kind of practical wisdom need not be managed from above, but is augmented, refined and validated by systems of networked learners. In other words, practical wisdom is shaped, evaluated, and refined by the practitioners themselves rather than produced and transmitted via expert systems (though experts can certainly help in this effort). Finally, such a distributed, bottom up system of knowledge creation helps to counter the otherwise diminishing returns and escalating costs of traditional hierarchically directed information systems.

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VALUES COMPATIBILITY ANALYSIS: INTEGRATING LANDSCAPE VALUES AND SPECIAL PLACES IN A NATIONAL FOREST PLANNING DECISION SUPPORT SYSTEM

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The challenge of national forest decision-making: National forest planning is a process often marked by conflicting values and ambiguous or contested goals at multiple scales of analysis. The traditional rational-comprehensive forest planning model has not often performed well under these conditions, particularly when such values have no ready means of quantification. The U.S. Forest Service, responsible for developing and implementing national forest plans, currently lacks formal protocols to cope with these "wicked" value-related, and often place-based planning issues. Since inception of the requirement to develop forest management plans under the National Forest Management Act (1976), there has been little, if any, practical advancement in (1) systematic inventory and mapping of place-specific values the public attaches to national forests, or (2) rigorous and replicable quantitative analysis of place-specific value data in spatial modeling to assess forest plan decisions for consistency with public values—much less in a manner that is helpful to most forest planners and capable of withstanding legal challenges in the NEPA process.

Review of previous work: In the late 1990's, social researchers developed public participatory geographic information system (PPGIS) methods (see Sieber, 2006 for PPGIS review) to explicitly measure the spatial distribution of various landscape values using a variety of spatial techniques (Brown, 2005). In an early application, Brown and Reed (2000) asked individuals to identify to the location of landscape values such as aesthetic, recreation, economic, and ecological values, in addition to more indirect, and symbolic landscape values such as spiritual and intrinsic values as part of the Chugach National Forest (U.S.A.) forest plan planning process. The set of spatial attributes to measure was based on a forest values typology adapted from Rolston and Coufal (1991). Reed and Brown (2003) subsequently developed a quantitative modeling approach using the PPGIS mapped landscape values data to determine whether forest plan management alternatives were generally consistent, and more important, place-consistent with publicly held forest values (see Kruger 2008 GTR for summary of Chugach case study). This method was initially called "values suitability analysis" in deference to its conceptual similarity to traditional physical land suitability analysis but was later called "values compatibility analysis" (VCA) as applied to national forest planning.

Based on the initial success of the landscape values data collection method and the promise of VCA modeling, additional PPGIS research was conducted by Brown and

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colleagues in a number of studies in Alaska and Australia. The second application focused on marine and coastal areas in Prince William Sound (Alaska). The purpose of this study was to help NGOs develop a conservation strategy for protection of the Sound by identifying conservation "hotspots". Subsequent analysis of the spatial values data provided opportunities to compare "expert" with "lay" or public conservation priorities (Brown et al., 2004).

Additional applications of the PPGIS methods identified the location of highway corridor values in Alaska to assist in the designation, planning, and management of national scenic byways (Brown, 2003), the measurement of landscape values and special places in Kenai Peninsula coastal areas in Alaska to identify "coupled social-ecological" hotspots (SES) where human and biophysical systems are closely linked (Alessa et al., 2008), the measurement of preferences for tourism and residential development on Kangaroo Island, a popular tourism destination in South Australia (Brown, 2006), the identification of priority areas for conservation in the Otways Region of Victoria, Australia (Raymond and Brown, 2007) and the Murray River corridor in Australia (Pfeuller et al., 2006), and the measurement of park and open space values in Anchorage, Alaska for the purposes of park and open space planning (Brown, 2008). Additional PPGIS studies that mapped landscape values and special place methodology were completed by doctoral students Nielsen-Pincus (cite ISSRM abstract) and Jessica Clements (cite ISSRM abstract) at the University of Idaho and Colorado State University respectively.

Using the Brown (2005) landscape value spatial mapping method as a model, researchers with the Canadian Forest Service designed and developed the first internet-based participatory mapping application to collect data on the locations of forest landscape values across a 2.4 million ha study area in the province of Alberta, Canada (Beverly et al., 2008). Three additional internet-based PPGIS landscape value and special place mapping studies were completed for national forests in the western U.S. in 2006 and 2007 (Landscape Values Institute, 2008).

While the PPGIS methods that map landscape values and special places are best characterized as applied research for land use and forest planning, the method has also contributed to theory development and validation. For example, the method has been used to validate the presence of spatial discounting of environmental resources (Brown et al., 2002), the development of a theory of urban park geography (Brown, 2008), and the development of proxy measures and indices for scale-based place attachment (see Williams and Vaske, 2003) that provide place-based information to assess the risk associated with landscape modification (Brown and Raymond, 2007).

Landscape values and special places operationalizaton. The human valuing process is complex with multiple meanings of the "value" concept. Brown (1984) classified the realm of values into three categories: held values, relationship values, and assigned values with preference relationships providing a linkage between held and assigned values. In the operationalization of landscape values and special places through PPGIS, individuals express preference relationships that link their held values with values assigned to the study landscape such as a national forest. Brown's (1984) conception of the human valuing process appears consistent with the transactional concept of human-landscape relationships (Zube 1987) where humans are active participants in the landscape—thinking, feeling and acting—leading to the attribution

of meaning and the valuing of specific landscapes and places. In the PPGIS process, we have not attempted to parse the influence of held values (based on life experiences) from assigned values (based on object attributes) as the process of mapping landscape values and special places through PPGIS is best viewed as holistic. The landscape value and special place maps that result from aggregated public or interest group responses represent a mix of preferential values that exhibit some degree of collective, spatial consistency, despite a high degree of spatial variation on an individual basis. The analogy of Surowiecki's (2004) "wisdom of crowds" is appropriate here in observing that that a diverse collection of independently-deciding individuals in the PPGIS process can produce collective spatial information that is better than individuals or even experts.

The values compatibility analysis (VCA) process. The analysis of landscape values can be schematically mapped into five domains (see Figure 1): 1) the relationship among landscape values, 2) the relationship between landscape values and forest management activities and/or policies, 3) the modeling of compatibility with existing or prospective forest plans, 4) the relationship between landscape values and biophysical forest conditions, and 5) the relationship between landscape values and public uses. While a comprehensive decision support system for national forest management should ultimately use information from each of the analytical domains, the VCA decision system described in this chapter is concerned with modeling the compatibility of landscape values with prospective forest management activities/policies.

The simplified VCA process for modeling compatibility of landscape values with forest management activities consists of: 1) identifying the typology of landscape values relevant to the planning purpose, 2) querying the general public and optional subgroups about the distributions (i.e., location and relative importance) of the identified landscape values through a participatory process, 3) compiling and preparing the landscape value data for VCA analysis and interpreted mapping, 4) modeling the compatibility of proposed management activities with the values, and 5) using the results to enhance collaborative learning opportunities through dialogue with the public.

In VCA, the generated spatial data is used as input to a spreadsheet model which calculates various landscape metrics and indices. The fullest potential of VCA modeling is realized when the national forest planning team has previously identified management units relevant to the forest planning purpose. For example, Table 1 from a VCA decision support system shows the number of mapped landscape values per management unit on the Deschutes/Ochoco National Forests as well as social metrics and indices such as the dominant landscape value per management unit, the mapped landscape value diversity within each unit, and even a calculated index that measures the potential for conflict within each management unit based on the mix of mapped landscape values. Each of the metrics and its potential relevance to the decision process is explained.

An specific example of using VCA for travel management planning in forest planning. Travel management planning in national forest planning consists of identifying areas where ATV/OHV use may occur on national forest land and the policies that regulate or otherwise enable or restrict off-highway vehicle use. With the increasing popularity of ATV/OHV use on public lands and the potential for conflict with

other national forest uses, decisions regarding travel management can be controversial.

In 2006 and 2007, Brown and Reed completed 3 pilot studies of internet-based mapped landscape values and special places for the Coconino, Deschutes/Ochoco, and Mt. Hood National Forests in the U.S. Using data from the Deschutes/Ochoco and Mt. Hood National Forest studies, this chapter describes how mapped landscape value and special place data can be used as input into an integrated values compatibility analysis (VCA) decision support system to identify and compare where ATV/OHV activity and publicly mapped forest values are potentially compatible or incompatible.

The VCA process for travel management planning and decision-making is a multiple-step process consisting of the following: 1) converting landscape value point data (vector) into density-based data (raster data with grid cells), 2) assigning compatibility weights or scores to the relationship between each landscape value and the proposed activity (e.g., positive, negative, neutral), 3) mathematically aggregating and classifying grid cells based on landscape value and ATV/OHV compatibility scores, 4) displaying and overlaying the resulting compatibility maps with forest travel management landscape units (if available), and 5) modifying or adjusting designated travel management areas (as needed) based on the compatibility scores.

The important step of assigning compatibility weights or scores to each landscape value and ATV/OHV activity relationship on a national forest can be generated a number of different ways—by forest planning personnel, by "expert" panels such as a group of District Rangers, or by a survey of the general public. The resulting maps based on the value/activity compatibility scores show areas on the national forest where ATV activity appears compatible or incompatible with perceived landscape values. This modeling process can be repeated for most of the prospective uses of national forest land. Figure 2 below shows the type of compatibility map that can be generated for national forest units. In this case, the map in Figure 2 shows ATV/OHV compatibility for the Deschutes/Ochoco National Forest in Oregon based on a set of perceived landscape value and ATV/OHV compatibility relationships. The compatibility scores used to generate Figure 2 were based on analyst judgment, but the compatibility scores can and should be derived from a variety on sources including Forest Service personnel, interest groups, and the general public. The use of color in mapping is helpful to show the continuum or gradient of activity/value compatibility scores. Figure 3 shows an aggregate ATV/OHV compatibility map for the Mt. Hood national forest that is based on value/activity perceptions solicited from Forest Service personnel (n=28) collected at a series of training workshops. Forest service personnel were asked to rate the general compatibility of ATV/OHV use with each landscape value on a scale that ranged from -5 (highly incompatible) to +5 (high incompatible). A score of 0 would indicate no obvious relationship between the landscape value and ATV/OHV activity.

Figure 4 shows color-coded, aggregate landscape compatibility scores overlaid with two proposed ATV/OHV designated areas on the Mt. Hood national forest, "Rock Creek" and "McCubbins". Landscape value compatibility scores are color-coded from reds (incompatible) to greens (compatible). The potential value of such a compatibility map is immediately apparent from the overlay map. There appear to be few obvious value/activity compatibility concerns within the McCubbins designated ATV/OHV area. However, in the proposed Rock Creek area, ATV/OHV activity appears compatible with

the mix of landscape values in the eastern reach of the unit, but incompatible with landscape values in the western reach of the unit. Forest planners should attempt to more fully understand the nature of the incompatibility relationship by examining the specific quantity and mix of landscape values and forest features located in the eastern section of the area. A decision to allow ATV/OHV use could result in significant forest user conflict, depending on the specific sources of the landscape value incompatibility scores. Assumptions about the landscape value/forest activity relationships used in the VCA decision support system can be easily changed to perform sensitivity analysis to show how widely the model results may—or may not—vary by value/activity assumptions, by geographic area, community, population demographic, or management unit of analysis. The VCA decision support system can operate at multiple spatial scales.

Applications and constraints of VCA as decision-support system. Decision support systems based on systematic mapping of landscape values and special places provide forest planners, local communities, first nations, special interest groups, and other stakeholders a useful starting point for a participatory and iterative planning process to develop and revise forest plans. Because the VCA decision support system provides data that is place-specific, includes both tangible and intangible forest values, accounts for local and regional 'sense of place' values, it offers significant advantages over the present, ad hoc system of soliciting place-based values through forest planning participatory process that is non-systematic, voluntary, and non-representative of the multiple publics that have an interest in national forest management outcomes.

But the development and implementation of national forest system-wide protocol for mapping landscape values and special faces some formidable constraints that appear more administrative and political than technical. The list of constraints includes, but is not limited to the lack of specific agency directives, the cost of developing and implementing the VCA protocol, the Office of Management and Budget (OMB) review process for collecting data, the lack of agency experience in working with landscape value and special place data, the public acceptability of using this type of data for forest planning, and the uncertain legal implications of planning decisions that reference landscape value data. Each of the constraints will be examined in detail.

We conclude with a discussion of important questions about the use of PPGIS in a national forest decision support system. These questions sustain and explicate a line of critique about PPGIS methods in general: who are the participants and what is their level of access to the process; is the GIS technology culturally appropriate and does it capture the type of knowledge that is essential to the forest management decision(s) to be made; and how inclusive, representative, and scale-appropriate is the forest management decision process?

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Table 1. Display of VCA decision support system landscape value metrics by landscape unit for Deschutes/Ochoco National Forest.

Deschutes-Ochoco M Travel Management P. Reed				Oregon 6/13/2007													
(Weighted) Note:	n = 322 By Community Locale Group																
					Value Sum (Absolute)		Value Sum Percent (P2) Index of Total Sample Points	Dominant Value	Value Dominance (D1) Index (Absolute)	Value Frequency (F) Index (Relative to Mean)	Value Density (D2) Index (Absolute)	Value Identity (I) Index (Absolute)	(D3) Index	"More/Less	Value Conflict Potential (C) Index (Absolute)		Composite Values At Risk (R1) Index
Landscape Unit	Acreage	Hectares Sq	Miles	Pct of Total Acreage					0.000 = Min 1.000 = Max	1.000 = Mean	Points per Acre	0.000 = Min 1.000 = Max	0.000 = Min 1.000 = Max		0.000 = Min 1.000 = Max	0.000 = Min 1.000 = Max	0.000 = Min 1.000 = Max
1 Crescent	233,428	94,238	365	10.8	604	2.605	7.879	Recreation	0.125	1.418	0.00259	0.927	0.952	-1.2	0.571	0.618	0.458
2 East Fort Rock Trail	111,941	45,192	175	5.2	259	1.117	3.379	Recreation	0.122	0.608	0.00231	0.862	0.939	-4.3	0.568	0.676	0.000
3 East Sisters	45,146	18,226	71	2.1	160	0.690	2.087	Economic	0.045	0.376	0.00354	0.859	0.968	2.4	0.501	0.882	0.00
4 Grassland East	78,097	31,529	122	3.6	310	1.337	4.044	Recreation	0.175	0.728	0.00397	0.942	0.984	6.4	0.560	0.618	0.042
5 Grassland West	18,028	7,278	28	0.8	194	0.837	2.531	Recreation	0.276	0.456	0.01076	0.888	0.982	5.7	0.597	0.676	0.000
6 Hole in the Ground	195,902	79,088	306	9.0	120	0.518	1.565	Historic	0.400	0.282	0.00061	0.857	0.976	4.3	0.567	0.882	0.000
7 Horse Butte	95.633	38.608	149	4.4	114	0.492	1.487	Recreation	0.125	0.268	0.00119	0.912	0.977	4.7	0.561	0.618	0.00
8 Lakes	411,859	166,273	644	19.0	1,259	5.430	16.423	Recreation	0.239	2.956	0.00306	0.923	0.956	-0.3	0.550	0.647	0.500
9 Lava Cast	50,063	20,211	78	2.3	96	0.414	1.252	Learning	0.077	0.225	0.00192	0.896	0.981	5.6	0.567	0.941	0.000
10 Maurys	61,772	24.938	97	2.8	277	1.195	3.613	Prim Recreation	0.086	0.650	0.00448	0.909	0.989	7.5	0.591	0.765	0.000
1 Meadow Lakes	22,617		35	1.0	122	0.526	1.591	Recreation	0.529	0.286	0.00539	0.802	0.903	-11.9		0.559	
2 Monument	55.123	22.254	86	2.5	484	2.088	6.314	Recreation	0.242	1.136	0.00878	0.842	0.944	-3.2	0.508	0.647	0.375
3 North Sisters	104.097	42.025	163	4.8	957	4.128	12.484	Wilderness	0.171	2.247	0.00919	0.917	0.971	3.1	0.553	0.853	0.50
4 Ochoco East	366.461	147.945	573	16.9	1.226	5.288	15.993	Prim Recreation	0.251	2.879	0.00335	0.930	0.962	1.0	0.578	0.735	0.500
5 Ochoco West	157.753	63.687	246	7.3	545	2.351	7.109	Prim Recreation	0.053	1.280	0.00345	0.907	0.971	3.1	0.617	0.824	0.375
6 River Group	1,585	640	2	0.1	229	0.988	2.987	Recreation	0.220	0.538	0,14448	0.867	0.946	-2.5	0.479	0.676	0.000
7 Sunflower	26.852		42	1.2	41	0.177	0.535	Economic	0.125	0.096	0.00153	0.762	0.899	-12.6	0.522	0.853	0.00
8 Three Creeks	131.654	53.151	206	6.1	669	2.886	8.727	Aesthetic	0.143	1.571	0.00508	0.885	0.937	-4.7	0.588	0.853	0.458
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Total	2,168,011	875,257	3,388	100.0	7,666	33.066	100.000	Recreation	3.405	18.000	0.21570						-
Mean	120,445		188	5.6	426	1.837	5.556	-	0.189	1.000	0.01198	0.883	0.958	0.0		0.740	
Maximum	411,859	166,273	644	19.0	1,259	5.430	16.423		0.529	2.956	0.14448	0.942	0.989	7.5		0.941	0.50
Minimum	1,585		2	0.1	41	0.177	0.535	-	0.045	0.096	0.00061	0.762	0.899	-12.6	0.479	0.559	0.00
Range Acreage-Value Sum Ran	410,274	165,633	641	18.9	1,218 0.638	5.254	15.888 Critical r value:	0.591	0.484	2.860	0.14387	0.180	0.090	20.1	0.139	0.382	0.50

Figure 2. Model of ATV use compatibility with mapped forest landscape values and special places on Deschutes and Ochoco National Forests (Oregon). Compatibility scores range from compatible (dark blue) to incompatible (dark red).

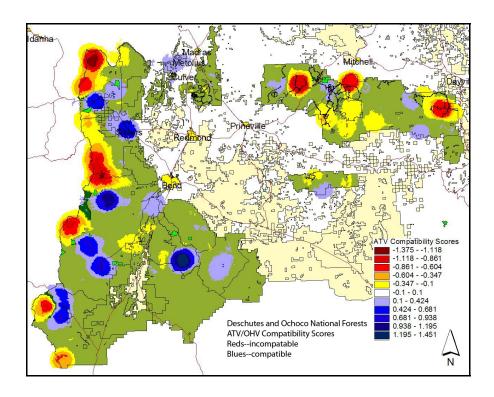


Figure 3. Model of ATV use compatibility with mapped forest landscape values and special places on Mt. Hood National Forest (Oregon). Compatibility scores range from compatible (dark green) to incompatible (dark red).

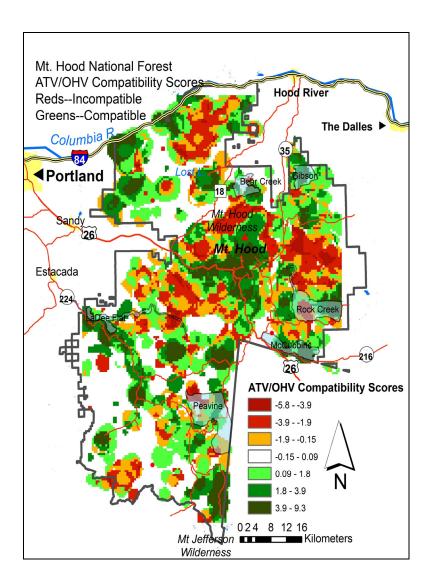


Figure 4. Model of ATV use compatibility with mapped forest landscape values and special places on Mt. Hood National Forest (Oregon). Overlay of compatibility scores on two proposed ATV/OHV management areas—McCubbins and Rock Creek. Compatibility scores range from compatible (dark green) to incompatible (dark red).

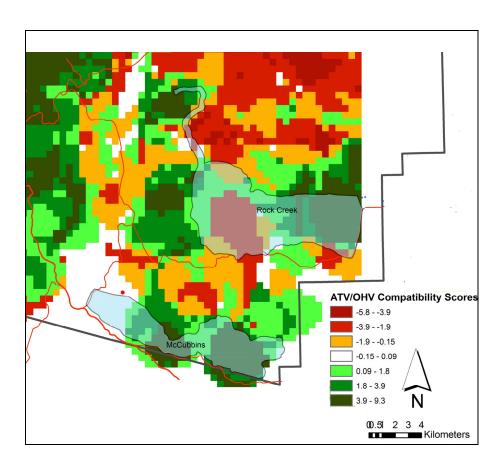
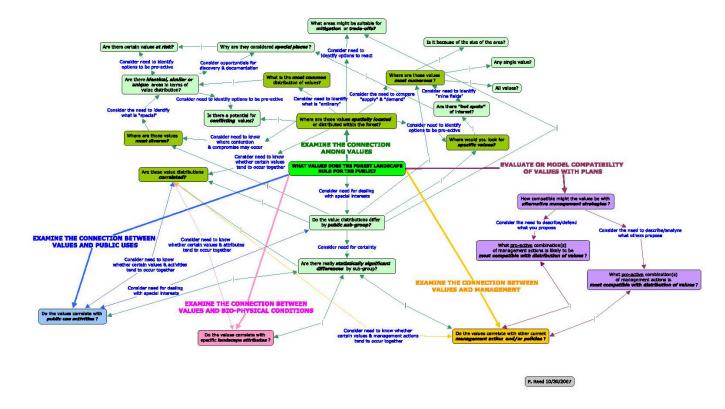


Figure 1. Schematic diagram of landscape values analysis.



EXPANDING PLACES THROUGH SPACES OF ENGAGEMENT: CONNECTING MULTIPLE SCALES OF DECISION MAKING IN THE CONTEXT OF LANDSCAPE DISTURBANCE

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Places are not static, bounded spots on the earth. As people live out their everyday lives, their interactions are continually creating and changing places. People-place interactions have been well documented in the literature, particularly how interactions within places shape local identities, social organization, natural resource decision making, and the meanings of places across landscapes (Cheng, Kruger and Daniels 2003; Brandenburg and Carroll 1995; Kemmis 1990; Stewart and Daniels 1998). This chapter extends these investigations of place to consider extra-local linkages across space and scale in shaping place-oriented decision making drawing on human geography and community sociology literatures.

Staeheli (2003, p. 162) described place as the result of a "layering of activities that constantly make and remake it." Drawing on Massey's (1979) geologic metaphor, Staeheli (2003) highlighted the role of human activity over time in constructing and constituting places. Yet place is more than a mere product of human action, it is also a dynamic process. In other words, places are always "becoming" (Pred 1984). This dynamic notion of place relies on an appreciation that decisions and actions at individual, household, neighborhood, community, regional, national, and global levels construct and shape the meanings and implications of places (Massey 1994).

Without a doubt, global and state scale processes and pressures certainly influence the position and character of places. But places, or more importantly the people and institutions within and among places, are not merely at the mercy of larger scale processes (Castree 2003). People take action to influence broader scales, particularly to deliberately shape the nature of their own place.

People acting in places are not simply marionettes whose actions and life chances are dictated by movements of the world economy and global politics. In other words, people acting in a place have a degree of 'agency' to control their destinies and those of the places they reside in. So local action cannot only react to global pressures but also act back on them (Castree 2003, p. 180).

This notion of reaching out beyond the confines of a particular place is central to understanding not only global dynamics, but regional experiences as well. Place-oriented actions and decisions often rely upon extra-local interactions which stretch spatial and organizational conceptions of place (Cox 1998). Thus, there are multiple scales at work in shaping the character and experience of place.

In the theoretical discussion that follows, the concepts of place, scale, community and regional fields, and governance help to orient a conceptual framework for understanding extra-local place-oriented action. An empirical exploration follows, highlighting an example of expanding the notion of place through regional interaction in the context of landscape disturbance in north central Colorado. The concluding discussion centers on

rural and natural resource oriented places and decisions shaping landscapes and humanenvironment interactions.

Framing place

Noel Castree suggested that "Places are not what they used to be" (2003, p.165). In this statement, Castree refers to changes in how places have been conceptualized. Historically, considerable geographic attention was fixed on differentiating places from one another (Hartshorne 1939). Certainly, even today, few would deny that places are unique, different, and independent in many ways (Kirby 1989; Castree 2003). The politics, experiences, and human-environment relations in Vail, Colorado are hardly the same as those in Walden, Colorado. Likewise, neither of these places are the same as two, ten, or fifty years ago⁶.

But despite an appreciation for uniqueness and differentiation, places are rarely conceptualized as isolated from one another. Indeed, appreciating the connections between places, and conceptually between place and broader scales, is essential to understanding the role of place in decision-making (Kirby 1989; Castree 2003; Cox 1998). The increasing interaction and interdependence of places across landscapes suggests that we need a more dynamic interpretation of place that captures the special contexts and everyday processes that shape life and interactions among people and their environments (Castree 2003; Staeheli 2003). As Castree (2003) suggested, people cannot put up barriers to the outside world and survive. Interconnections and linkages between places are critically important (Paasi 2004).

To suggest that people only operate or attach or identify with a narrow notion of place is a disempowering and oversimplified view of human activity and human-environment interactions. The concept of scale is a useful concept for expanding our appreciation of place to match the realities of identity and action for real people.

Scale as an organizing concept for connecting places

Places don't exist in isolation, they simultaneously operate within larger spheres of activity, or scales (Howitt 2003). Scales provide a useful way to organize connectivity from local to global. However, scale is as much of a "troubling and even chaotic concept" (Howitt 2003, p.138) as place (Staeheli 2003). Though often treated as neat, discrete, bounded units or levels or as separate, concentric rings or rungs of a ladder (Howitt 2003, p. 145), portrayals of scale as a rigid, hierarchical system may be problematic. In reality, connections between places and levels of society and the environment may involve more "awkward juxtapositions and jumps" (Howitt 2003, p. 145). In other words, interactions among multiple scales need not rely on notions of nestedness or contiguity in order for connections to occur. On a cautionary note, splitting up the world into discrete, separate parts or levels may overemphasize scale as an organizing framework and de-emphasize processes that are not scale-dependent or operate within scales (Brenner 2001; Marston

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⁶ This example follows from Kirby (1989) who suggested that "city politics in Houston could never be confused with city politics in San Fransisco" (p. 323) and from Massey (1994) who focused on the changes in places and the conceptualization of place over time.

2000). The key to a useful conceptualization of scale is appreciating the fluidity of connections that exist between varying levels of engagement and interaction among people and between people and their environment (Brenner 2001).

Unfortunately, disciplines often specialize in analyses at different particular scales, making integration across scales more difficult (Agnew 1993). For example, political science typically focus on the role of the state, psychologists tend to focus on individuals, and sociologists frequently delineate their work in terms of households or communities. Thus, it is all the more important for interdisciplinary work to keenly seek to understand multi-scale linkages and eschew prioritizing one scale over all others (Swyngedouw 2003). Appreciating connectivity across scales not only reduces uncertainty about change, but helps build capacity for holistic problem-solving.

(T)he scale politics of power, identity and sustainability offers dispossessed, marginalized, and disadvantaged peoples a better framework for political action across and between multiple scales" (Howitt 2003, p. 139)

Cox (1998) outlined the useful concepts of spaces of dependence and spaces of engagement for understanding the interdependence and actions of places within a broader contest. Cox suggested that people have dominant areas of local interest or spaces of dependence. Activities within these spaces of dependence shape place-based identities and everyday life. Yet, operating within narrow spaces of dependence is insufficient for the maintenance and continual shaping of places. In everyday life, people logically connect with other places and other scales beyond their primary locality or place of residence. In order to maintain places and fulfill needs and desires, there is a need for engagement outside of narrowly conceptualized places – to larger spaces of engagement (Cox 1998).

"Local agents are participants in a much more spatially extensive set of exchange relations than those contained within the bounds of a particular place" (Cox 1998, p.4).

This broader engagement, or interaction across space, redefines places relative to others and the larger realm in which they are situated. It also stretches the notion of place as people develop affinity and meanings for broader spaces. By acting out on emerging regional or larger scale identities, new spaces or newly conceived places can become the focus of decision-making.

Place and community fields

Community as a concept is as contested as place (Luloff, Krannich, Theodori, Koons-Trentelman, and Williams 2004). While many definitions of community exist, a territorial or place-based component is commonly found (Wilkinson 1991). In an interactional interpretation of community (Wilkinson 1991; Flint and Luloff 2005), place plays an important, but incomplete role in the emergence of community. Community emerges through collective actions by people who share common interests and care about the place in which they live (Wilkinson 1991; Luloff and Bridger 2003; Flint and Luloff 2005). Therefore, though place and community are not synonymous, they are strongly linked.

Place-oriented community action influences the dynamic reproduction of landscapes, social organization, human and community development, and larger scale decisions. The concept of a community field is helpful to understanding how people from various social interests or fields come together in the general interests of a community to take action or influence decisions about their shared place (Wilkinson 1991; Theodori 2005). Yet we need not isolate this field process to the scale of locality or place. Indeed, communities often come together in the general interests of a larger region to influence decision making. I refer to this notion as a regional community field. There is room within a regional field concept for both generalized regional actions as well as place-oriented actions. In other words, people working together are likely to extend beyond the realms of their own spaces and places to engage others, both for broader regional interests as well as their own place-based orientations. This type of extra-local interaction is closely related to Cox's (1998) notion of spaces of engagement. As the next section highlights, new possibilities and limitations exist for participation in decision-making by linking communities, places and scales for dynamic and purposive action.

Place-oriented governance in rural regions

The contemporary neo-liberal political context has involved a devolution of decision-making and a shift from the dominance of *government*, or the role of the state and directly elected officials (Painter and Goodwin 1995), to *governance* or

"Any strategy, tactic, process, procedure, or programme for controlling, regulating, shaping, mastering, or exercising authority over others in a nation, organization or locality" (Rose 1999, p15).

This shift in decision making processes has given responsibility to lower scales – in essence, to places. This devolutionary process involves the emergence of new players and new relationships to create capacities to act in common interests. As Rose (1999) suggested, "The pattern or structure that emerges as the result of the interactions of a range of political actors – of which the state is only one" (p.16).

Johnston (1991) highlighted political actions by those with power in society – people "who use space and create places in the pursuit of their goals" (p. 68). Though the emergence of new institutions and forums for decision making at different scales sounds at first glance as an opportunity for places to assert themselves in self-determination, in places lacking capacity, it can be a burden (Herbert 2005; Flint and Brennan 2006). Particularly in rural areas, new institutional arrangements may be slow to emerge and benefits may not emerge as readily (Jones & Little 2000). The question remains whether those without power in rural society or regions have a voice or indeed any ability to use space or create places that fit their identity and goals.

Rural, natural resource based communities often have a legacy of dependence, powerlessness, and being subject to decisions made at higher scales. Rural places have suffered from shifting national emphasis to urban issues and sources of capital in the post-fordist economy, not to mention the preoccupation with national and international security issues (Flint and Luloff 2005). On their own, individual rural communities may not have the capacity to create and shape places on their own, to use space to suit their collective needs and desires, much less to come together to sort out what those needs

and desires might be or how to reconcile conflicting interests. But through interaction among places and by reaching out across landscapes and scales, they can interact with others via new opportunities in governance. Without meaningful dialogue and careful procedures, acceptance of divergent interests along with common ones, people and places may be powerless to influence decision making at larger scales. With interaction, however, local people may find the elements of place that are shared and worth fighting for, thus catalyzing potential for collective action and participation in the new forms of governance by operating within spaces of engagement (Cox 1998).

Forging new relationships amidst landscape disturbance in north central Colorado

In a five county region of north central Colorado⁷, mountain pine beetles (Dendroctonus ponderosae) are causing massive tree mortality across over 1 million acres. The outbreak continues to spread and intensify within and beyond this area. A landscape disturbance of this magnitude challenges place meanings for those who live, work, and play in and around forested areas. People interact with the changing forest environment in many ways at different levels or scales from personal property, neighborhoods, and communities to the broader regional landscape (Flint, McFarlane, and Müller in press). There are also important links between Colorado forest-oriented communities and state and federal policies as new opportunities for and restrictions on forest management contribute to influence land use and human-environment interactions. Discussions of global climate change as having implications for forest disturbance and management strategies also mean that places in Colorado also have links to global processes.

Particularly at more local scales of human-environment interaction, communities can be a key locus of decision making. The everyday interface between people and the forest environment occurs in localities and communities whereby experiences are shared by people with multiple interests. Decision-making in the context of forest disturbance is influenced or limited by larger scale structures such as state and federal regulations, but there is also a degree of autonomy for actions to emerge locally. Individuals make decisions about what to do with trees on their own property. Residents within homeowner associations and neighborhoods collaborate (or fail to collaborate) to regulate activities within delineated areas. City governments enact regulations and restrictions on forest management, influence risk management strategies such as local fire prevention and response, and shape policies regarding local development which impact wildland-urban interface zones. County commissioners facilitate dialogue across multiple local level interests and have jurisdiction over rural issues, including land use and forest management, outside of city limits. Locally-based representatives of state and federal land management agencies interact with local interests as they seek to manage public lands around the region. In this way, these agency representatives create a bridge between local interests and state and federal scales of decision-making.

While there are opportunities for local action to emerge in response to forest disturbance, capacity for interaction and collective action is not always present in neighborhoods, communities, and other local scales. Using the language of Cox (1998) the spaces of dependence around each local community are inadequate for dealing with the multi-

⁷ Communities included in the study of this region are Breckenridge, Dillon, Frisco, Granby, Kremmling, Silverthorne, Steamboat Springs, Vail, and Walden. Counties are Eagle, Grand, Jackson, Routt, and Summit.

scale implications of changing landscapes by forest disturbance. By linking actions among multiple communities and local interests across multiple places, considerable region-wide actions emerged in north central Colorado influencing state and national policies and decisions and re-shaping places, place meanings, and regional identities.

Primary state and federal actors dealing with the forest disturbance and forest management issues include the US Forest Service, the US Bureau of Land Management, the US National Park Service, and the Colorado State Forest Service. One problem with the typical government structures for decision making in the area is the rapid turnover in local representatives of some of these agencies. When district rangers and field officers are replaced every couple of years, there is little institutional history or memory of interaction with local interests and communities.

Over the time-span of this recent mountain pine beetle outbreak, new governance relationships have been forged as local residents and representatives of different interest groups, communities, and organizations tapped into existing and emerging networks of association, or new spaces of engagement to promote their place-oriented issues and influence decision making and action. A wide variety of new relationships developed across the five county area most heavily affected by the initial years of the current mountain pine beetle outbreak. The next section will outline examples from Colorado including regional lobbying efforts; task forces; interagency cooperatives with public outreach dimensions; cooperative forest treatment plans bridging industry, public land management agencies, homeowners associations, municipalities, and county governments; community and grassroots actions; and other efforts.

Discussion and Conclusions

Amidst major landscape change and forest disturbance, new relationships for governance emerged in north central Colorado. Non-state actors took over some natural resource management functions with new and different ties to state actors. A regional identity emerged with new forms of interaction mobilizing political action. These new forms of governance and interaction did not come without difficulties and tension. There remain disparities and disagreements over "haves" or wealthy communities such as Vail and Breckenridge and relative "have nots" such as areas of Grand and Jackson Counties. There are still areas of lower interactional capacity, or level of ability for people to work together collectively in the name of shared places and interests. In some cases, capacity is low because of strong government representation as seen in the case of Vail and many of the community engagement efforts dominated by officials. In other cases, conflicts of interest, tensions between newcomers and longtime residents, and poor economic conditions dominating everyday life, such as Jackson County, are perceived to block full engagement in assertive decision-making and collective action. Instability in agency representation at the local level continues to create problems with continuity, institutional memory and ability to facilitate collaborative processes.

But there is certainly evidence of progress across the region as outlined above. New forms of multi-scale engagement and connectivity among places are expanding place-based identities to broader regional scales. Where many north central Colorado residents previously hadn't thought they had much in common with their neighboring communities and counties, interactions on the bark beetle issues has allowed for a larger-scale identity

to emerge. Places maintain their identity and meaning for residents, but they are more familiar with the opportunities made possible by extra-local and multi-scale interactions.

As researchers, we do not always use the same definitions of place as the people we study (Staeheli 2003). Thus, it is important to incorporate local knowledge and local meanings in our research on places, taking care not to impose our own interpretations of place onto those who live work and play in places, especially places at risk. For research outcomes to be locally relevant and oriented toward improving human and environmental well-being, we need to let local people articulate their own place meanings.

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EFFECTS OF PLACE IDENTITY ON COMMON-POOL RESOURCE MANAGEMENT ON PRIVATE LANDS: A CONCEPTUAL FRAMEWORK

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1. Introduction

Population growth and urban expansion along the urban-rural interface have converted much private open space including farm, forest, and ranch lands for residential development and associated land uses. Land conversion may lead to fragmentation of continued private agricultural lands to become too small to be economically viable for agricultural production (Wilkins et al., 2003). At the same time, habitat for wildlife, maintenance of water supply and quality, soil conservation, flood control, greenhouse gas sequestration, and provision of scenic landscape as well as nature or agriculture-based recreation may also be adversely impacted (Czech, Krausman, & Devers, 2000; Ewing, Kostyack, Chen, Stein, & Ernst, 2005; Hellerstein et al., 2002).

2. Common-Pool Resources

Many of the ecosystem goods and services supported by private open space are common-pool resources (CPRs). CPRs differ from other types of resources in the attributes of subtractability and non-excludability (Dietz, Dolŝak, Ostrom, & Stern, 2002). Unprotected wildlife that moves from one property to another is CPRs. Consumption of wildlife due to hunting or lack of suitable habitat on a property reduces the overall population available for others to enjoy it through activities such as wildlife watching or hunting. On the other hand, the environmental amenities of a land managed in a sustainable manner benefits society often without the owner being compensated for the management costs. These two attributes of CPRs are, therefore, likely to lead to the incentive problems of overuse and free-rider (Ostrom et al., 1994).

Private landowners' decision between consuming the resources on their land for short-term economic maximization and maintaining the land for its ecological functions may be described as common-pool resource dilemmas that occur when "individuals in interdependent situations face choices in which the maximization of short-term self-interest yields outcomes leaving all participants worse off than feasible alternatives" (Ostrom, 1998, p. 1). If each private landowner makes the decision to maximize short-term economic outputs from his/her land, society will suffer the consequences of losing the ecosystem goods and services originally supported by private lands.

2.1 Solution to CPR dilemmas

Different solutions have been examined to solve CPR dilemmas (Kollock, 1998; Messick & Brewer, 1983). Structural solutions use externally driven mechanisms that enforce exclusive access, regulations on consumption, and changing the structure of the group (e.g., group size) that has access to CPRs. Motivational solutions emphasize psychological processes that transform individuals' goal of maximizing self-interest to the one that focuses more on collective benefits. Social value orientations (e.g., individualism, competition, cooperation, and altruism) have been suggested as relatively stable

dispositions that carry the motivational force for individuals' engagement in collective action (Kopelman et al., 2002; Kollock, 1998). On the other hand, collective identity or group identity is more malleable. It may enhance one's trust in other group members (Ostrom, 1998; Kramer et al., 2001), increase his/her expectations that other group members will reciprocate the act of trust (Kollock, 1998; Van Lang & Messick, 1996), and strengthen the beliefs that his/her involvement in collective action will make a significant difference to the collective outcome or self-efficacy (De Cremer & van Vugt, 1998). Figure 1 summarizes the aforementioned relationships among collective identity, trust, reciprocity, self-efficacy, and collective action. Here, collective identity influences decisions to engage in collective action through trust, expectations of reciprocity, and beliefs in self-efficacy.

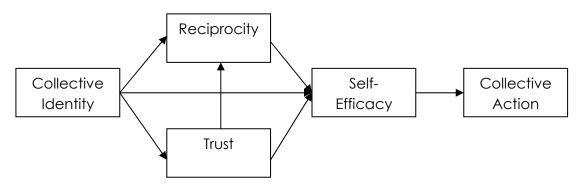


Figure 1. Goal transformation model for collective action

2.2 Limitations of CPR research

Much of the CPR dilemmas research employed experimental designs based on the minimal group paradigm where study participants were arbitrarily assigned to a group based on an attribute not important or not relevant to the identity salient to them (Krammer & Goldman, 1995). As a consequence, group identity was frequently used as a treatment and single indicators were applied to identify individuals' possessions of this psychological state despite the complex and rich meanings that one may attribute to a group valuable to him/her.

Furthermore, this line of research has not focused much on the collective identity deriving from one's identification with a specific geographic location and association with individuals who share the same place. At the same time, field work on the commons focusing on local user groups in small communities has identified that clearly defined boundaries and factors deriving from individuals' interactions with specified places are crucial for successful CPR management (Agrawal, 2002).

3. Place identity

An identity associated with one's interaction with a place or place identity can be viewed as comprising the meanings that the person ascribes to the place (Cuba & Hummon, 1993) and that become the defining elements of self-identity (Proshansky, Fabian, & Kaminoff, 1983). Meanings of a specific geographic location may be distinguished into a cognitive and affective dimension (Proshansky, 1978; Relph, 1976).

Meanings that describe the biophysical and spatial features of the place as well as the activities and functions it supports can be categorized as the cognitive aspect of place identity. Affective place-identity is expressed through one's feelings related to scenic beauty, connection to nature, pride, self-esteem, spirituality, attachment, and belongingness deriving from the place.

Place constructs, such as place identity, place attachment and sense of place, have been increasingly applied to natural resource management to explore the effects of the people-place relationship on attitudes, perceptions, or behaviors toward natural resource conditions or management (Kaltenborn, 1998; Kyle, Graefe, Manning, & Bacon, 2004; Payton, Fulton, & Anderson, 2005; Stedman, 2002; Vaske & Kobrin, 2001). However much of this research has not yet invested much to explore the effects of this relationship on natural resource management at the group level. Furthermore, examination of how place constructs may affect CPR management on private lands has been lacking. Another less understood area in place research is the impacts of environmental change on one's relationship with a place and responses to the change (Davenport & Anderson, 2005; Rogan, O'Connor, & Horwitz, 2005).

4. An integrative approach to place-based collective action

In order to address the research gaps mentioned above, we propose 5 propositions that integrate the different lines of research on CPR dilemmas, place identity, and group processes primarily based in social identity theory.

Proposition 1- Place-based collective identity is comprised of multiple dimensions

According to Tajfel (1981), social identity is "that part of an individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that group membership" (p. 255). Some have adopted Tajfel's conceptualization of social identity and viewed this construct as comprising one's awareness of his/her membership in a group or self-categorization, valuation of the group or group self-esteem, and emotional attachment to the group or affect commitment (Bergami & Bagozzi, 2000; Ellemers, Kortekaas, & Ouwerkerk, 1999). Additionally, it has been suggested a sense of interdependence or common fate as another important component of social identity (Jackson & Smith, 1999). Deaux (1996) has stated that "interdependence, entails a more concrete relationship between self and other members of the social category. At minimum, interdependence connotes the possibility of some form of joint action; at maximum, interdependence consists of coordinated activities by people with common goals and shared outcomes" (p. 784).

In Proposition 1, we view the cognitive and affective dimension of place identity at the collective level (e.g., a region) as components of place-based collective identity. The cognitive dimension represents one's awareness of his/her membership in a group formed as a consequence of his/her identification with the region in which his/her property is located and associations with others who share the same region. Shared meanings of the biophysical and socio-cultural features unique to a region help define individuals as belonging to a distinct group. Feelings of scenic beauty, connection to nature, pride, self-esteem, spirituality, attachment, and belongingness deriving from the region are manifestations of the affective dimension. This dimension of place-based collective identity is comparable to affective commitment in social identity.

The value component used to define social identity can also be applied to describe place-based collective identity to represent the evaluations of self-worth deriving from one's membership in the region. This dimension is reflected in place research showing that one's residential and favorite places serve the function to facilitate individuals' self-enhancement (Lalli, 1992) and self-evaluation (Twigger-Ross & Uzzell, 1996).

Interdependence among individuals is a necessary condition to delineate a CPR dilemma (Ostrom, 1998). Although a sense of interdependence is not included in Tajfel's conception of social identity, we see it as another dimension comprising place-based collective identity. A sense of interdependence represents the extent to which individual landowners' self-interest to conserve the important features on their property is dependent on the achievement of the collective goal to sustain the shared place meanings of the region where these individual properties are located. The proposed dimensional structure of place-based collective identity is illustrated in Figure 2.

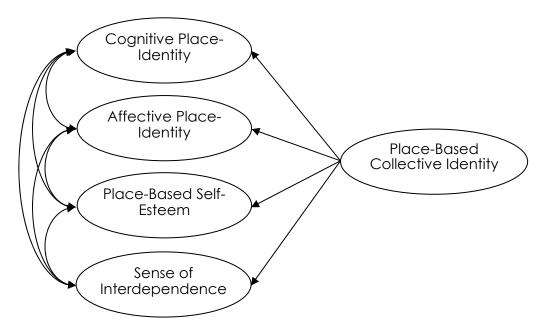


Figure 2. Dimensional structure of place-based group identity

Proposition 2- Place-based collective identity creates intergroup favoritism which in turn facilitates the perception of trust, reciprocity and self-efficacy

Place-based collective identity enhances perceived similarity and favorable evaluations among landowners belonging to the same place-based group which in turn facilitates their perception of other group members' trustworthiness and belief that other group members will reciprocate acts of trust (Kramer et al., 2001). A sense of place-based collective identity, trust in and expectation of reciprocity from other group members together contribute to private landowners' beliefs that their involvement in natural resource management beneficial to the region collectively can make significant contribution to the outcome (De Cremer & van Vugt, 1998; Messick & Brewer, 1983).

Proposition 3- Perceived environmental change that may threaten one's place-based collective identity is likely to enhance the salience of the identity and its effect on collective action

Proposition 3 suggests that perceived environmental change that may threaten one's place identity is likely to enhance the salience of the identity and its effect on collective action. The effect of environmental change on collective identity and collective action is less discussed in the CPR dilemma literature. Empirical evidence from place research is only indirect. Place literature has suggested that individuals are not aware of their place identity until change in the physical environment is perceived (Brown & Perkins, 1992; Feldman, 1990; Williams & Stewart, 1998). Lai's (2007) study provides some preliminary support for this proposition. Findings of this study show that landowners who perceived environmental qualities of the surrounding landscape declining expressed a higher level of resistance to change by subdividing their property or moving to a different place. The same group of landowners also tended to invest more effort in applying ecologically sound measures to managing their properties.

Proposition 4- Place-based collective identity, trust, reciprocity, and self-efficacy contribute to collective action only when one intends to continue the identity

Proposition 4 suggests that place-based collective identity, trust, expectations of reciprocity from other group members and the beliefs of significant personal impacts on the collective outcome will contribute to collective action only when landowners are intended to maintain the identity. If landowners have no intention to remain the connection with the region for a variety of reasons, then they are less likely to invest limited resources in collective action even if they are identified with the region, trust other ingroup members, believe that they will receive reciprocity from other members, and feel a sense of self-efficacy,.

Proposition 5- Salient subordinate groups may undermine the effect of place-based collective identity on collective action

Kramer and Brewer's (1984) experimental research shows that salient group boundaries among individuals are likely to prompt competition for declining resources. If the divergence in landowner interests in the attributes and meanings of the region to be conserved or developed expands, and groups of different interests emerge as a consequence of this divergence, then it may undermine the effort to promote collaboration among them. Research that examines the conflicts between long-term residents and newcomers in their support for natural resource management provides indirect empirical evidence for this proposition (Bonaiuto, Carrus, Martorella, & Bonnes, 2002; Gosnell, Haggerty, & Travis, 2006).

5. Implications

In this final section, we will make several suggestions based on the five proposed propositions for agencies or organizations strive to facilitate landowner collaboration (e.g., cooperative wildlife management) to sustain common-pool resource management at a regional scale.

- 1. To promote collaboration among private landowners, agencies and organizations may need to identify landowners' self- and collect-interests in conserving the place meanings important to their place identity embedded in the region where their properties are located. Moreover, agencies and organizations may need to convey to landowners that they share the membership with landowners of the region (i.e., collective identity based in the region). In so doing, landowners' trust and beliefs in reciprocity from the agencies and organizations could be enhanced.
- 2. Furthermore, we suggest that agencies and organizations may need to develop mechanisms, such as information sharing, public involvement, network building, and technical support, to facilitate communication and interactions with landowners. Through these mechanisms, agencies and organizations may
 - a. enhance individual landowners to identify the shared meanings that comprise the place-based collective identity and to
 - b. minimize the perceptions of differences between landowners of dissimilar interests (e.g., newcomers vs. oldtimers).
- 3. Although various landowner programs have been provided by governmental and non-governmental organizations to financially support landowners' effort to sustain

the natural resources on their properties, the temptation to sell the land or convert the land for uses of higher economic outputs is always there if the land means nothing other than economic production to landowners. Promotion of landowner programs that take into account landowners' connection with their property and the region may help overcome landowners' dilemmas to trade their land entirely for short-term economic values.

4. Also we suggest the need to raise landowners' awareness about the adverse effects of environmental change on environmental features and associated meanings important to their place identity to make the identity salient. This may in turn enhance their engagement in collective action for sustainable common-pool resource management in the region.

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NPS PUBLIC PARTICIPATION POLICIES, COMMUNITIES OF INTEREST, AND COMMUNITIES OF PLACE

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Abstract

Laws and policies increasingly direct protected-area managers to involve the public in management decisions, including publics at local and regional or national scales. These publics include communities of place, who share resources and interact regularly with the protected area and its management, and communities of interest, organized around specific interests or passions related to protected area resources. A range of philosophical approaches to public participation exist, some of which are better suited to engaging communities of place, and others better suited to communities of interest. National Park Service (NPS) policies regarding public participation reflect both types of approaches, which some have interpreted as contradictory. These policies, however, are not alternatives; they are used contemporaneously, depending on the context, scope, and nature of the management issue. This paper examines the implications of NPS public participation policies that privilege communities of interest vs. communities of place, and discusses situations in which one or the other approach is better suited to achieve NPS mandates. These approaches differ fundamentally on a number of dimensions, including: conceptions of park function, community structure, community members, goals of participation, and participatory processes. Recognizing assumptions underlying approaches to participation can assist natural resource managers who strive to meet their public-trust mandate in selecting among stakeholder engagement processes that are better suited for communities of place or communities of interest. Integrating both communities' "sense of place" in protected-area management creates a challenge to governance not easily overcome by managers attempting to fulfill their responsibilities for public involvement. This paper illuminates the challenges and suggests ways that attention to both communities can be accommodated.

Introduction

The National Park Service manages special places in trust for the benefit of current and future generations (National Park Service Act, 1916). Over the past century, the National Park System has expanded from isolated parks created to preserve America's scenic treasures (Runte, 1997; Sellars, 1997) to include new kinds of parks, including: recreation areas, wild rivers, heritage areas, and historic sites. Parks not only are being created in or near more populated areas, but also are attracting amenity migrants who seek to improve quality of life by living near protected areas (Howe et al., 1997). Thus, many parks now are embedded in and part of broader communities that present increasingly complex management challenges. The NPS recognizes that parks are not isolated or insulated from their broader communities, and that actions in parks affect these communities just as actions in communities affect parks (National Park Service, 2001b).

With the NPS's broadening sphere of influence comes increased responsibility to ensure that: (1) the public understands and supports park management undertaken on their behalf, and (2) public input is adequately considered in park management decisions. Yet, the public no longer can be viewed as an aggregate of individuals with interests in a distant place. Parks are a national resource and national publics must be considered in decision-making, but local publics may have different concerns given their direct and ongoing interactions with park resources or management. This distinction has been described as the difference between communities of interest (i.e., people who share a common interest or passion, regardless of their location or degree of interaction) and communities of place (i.e., people who are bound together because of where they reside, work, visit or otherwise spend a continuous portion of their time) (Patterson et al., 2003).

These growing needs for NPS communication with and engagement of different publics reflect current trends experienced by many public agencies charged with managing protected areas. The philosophical approach used to design public involvement processes affects the degree and scope of the public's impact on decisions. This paper examines the implications of different approaches to including people in the management of special places, using the U.S. National Park Service as an example.

The National Park Service and Public Participation

This section will briefly describe laws and policies that direct NPS public participation activities, especially those related to the National Environmental Policy Act (NEPA, 1969). The key distinction is between procedural compliance with legal public participation requirements (e.g., the DO-12 Handbook, National Park Service, 2001a), and public participation that fulfills broader purposes (e.g., Director's Order 75A, National Park Service, 2003).

Public Participation Paradigms

The term "public participation" can be applied to many forms of interaction between government and citizens. Philosophical approaches to public participation have been described as a continuum that reflects the degree of citizen engagement and power in the decision-making process, ranging from nonparticipation, where the goal is providing information and building awareness, to co-management, where citizens are embraced as partners in the final decision and management implementation (Arnstein, 1969; Chase et al., 2002; Decker & Chase, 1997; National Park Service, 2003). Leong et al. (in press) examined these approaches with respect to implied assumptions about community structure, function, and capacity for collective action and identified three distinct public participation paradigms: top-down governance, public input, and public engagement. Assumptions underlying each paradigm potentially influence interactions between natural resource management agencies and different communities of stakeholders; each will be outlined briefly.

Public Input vs. Public Engagement

Assumptions for the two paradigms that reflect active solicitation of public involvement (public input and public engagement) will be examined in more detail with respect to implications for NPS, namely whose "sense of place" is reflected in management decisions and how that vision is incorporated into NPS planning. The two paradigms place emphasis on different aspects of park function, relationship between the park and the public, conception of the public, goals of public participation, and characteristics of participatory processes (Table 1). We will demonstrate how underlying assumptions affect each point in Table 1 and provide evidence from NPS managers and public participation practitioners to support our observations.

This section will be the main emphasis of the paper.

Implications for Communities

Collectively, the above observations reveal that the public input paradigm privileges communities of interest, while the public engagement paradigm privileges communities of place. NPS Management Policies (2006) direct the agency to manage special places for current and future generations of both communities. The tension potential is clear in this situation. In this section, we will address the following questions:

- 1. How do you balance communities of interest and communities of place?
- 2. Are there phases of issue evolution where certain approaches are more appropriate than others?
- 3. How to you address individual stakeholder preferences (may require a combination of approaches)?
- 4. Are certain approaches more appropriate for certain types of impacts (primary vs. collateral)?

Conclusion

According to the NPS, "The public includes all of the individuals, organizations and other entities who have an interest in or knowledge about, are served by, or serve in, the parks and programs administered by the NPS...[including] NPS employees (National Park Service, 2003, p. 4)." Consequently, managers face the paradox of including all segments of the public in planning, yet each approach to active public participation gives advantages to some segments of the public over others, and may not be logistically feasible in some situations. Application of these philosophically different approaches has been challenging in the NPS. To support policy, we suggest scenarios in which some approaches may be more suitable than others.

Additional research is needed to clarify the relationship between success of different approaches to public participation and the various stages within the life of a natural resource issue (i.e., from issue definition to formulation of an action plan, to implementing activities), bearing in mind that stakeholders also will have individual preferences and varying comfort levels with different means for providing input. While this

paper examines community and participation from the perspective of the NPS, a federal land management agency, the same considerations would apply whenever the community of interest is broader than the community of place.

Table 1. Implications of procedural and substantive policies related to NEPA on conceptions of park function, community structure, community members, goals of participation, and participatory processes.

Public Input Policy Paradigm:	Public Engagement Policy Paradigm:
Macro view of "the public"	Micro view of "the public"
NEPA Section 102: Procedural Requirements	NEPA Section 101: Productive Harmony
DO-12 Handbook	DO-75A and DO-52A
Function of Park	
Identify alternate ways to preserve the resource while providing for enjoyment	Identify alternate ways to provide for enjoyment while preserving the resource
Park has specific functions mandated by	Park also fulfills more general functions
Focus on serving national public	Focus includes serving local public
Relationship between Park and the Public	
Park is an island, independent	Park is part of community,
Local community = adjacent landowners + interested parties	Local community= park + adjacent landowners + interested parties
"us" and "them"	"we"
Conception of the Public	
Focus on special interest groups, stakeholders with specific concerns	Stakeholders are whole people who fill many roles, beyond their specific stake
Diversity in views leads to adversity/conflict	Diversity in views leads to creativity
Goals of Public Participation	
Compliance	Planning
Public gives input to park problem	Park help solves aspect of community problem (shared cultural meanings)
Focus on process criteria	Focus on outcomes of processes
Characteristics of Participatory Processes	
Need to regulate process, formal	Addition of informal communication
Learning=what stakeholders want	Learning=what is the range of possibilities
Listen (2-way asymmetric comm.)	Dialogue (2-way symmetric comm.)
Negotiation=zero sum bargaining	Negotiation=mutual gain discussions
Position based	Interest based
Consensus=all parties must agree on substance of outcome	Consensus=all parties must be able to live with substance of outcome

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