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Understanding Forest Users Sense of Place: Implications for Forest Management

A new tool for understanding sense of place

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Introduction:

The primary goal of this research was to achieve a better understanding about how people relate to their "home place". In particular we set out to examine whether one can determine the degree to which people are attached to socio-cultural aspects of place (kin and friendship networks, institutions, and infrastructure) versus ecological aspects of place (forests, water, recreation places, flora and fauna). The main success in this project was the creation of an innovative method for understanding sense of place. Presentations of our work to date in conferences across Canada and the United States have generated a great deal of interest. We are confident that others will soon be using photo-assisted methods similar to the one we developed to better understand sense of place and to assist in forest management planning.

Among our findings are that inter and intra-regional variation exists in place attachment. As well, place attachment is a multi-dimensional phenomenon. For many of our participants, it was difficulty to isolate a single, predominant factor for a given object of place attachment. For example, an individual would express attachment to a lake scene because of 1) the inherent aesthetic appeal of the scene, b) the recreational potential it offered (e.g. fishing, boating), and c) personal history associated with the site (e.g. past experiences shared with family or friends at the site). Another relevant finding is that very few respondents identify forests explicitly as objects of place attachment. However, many identified sites in forested settings. This fact, taken with the reality of the multidimensionality of place attachment, does have implications for forest management. Efforts to address purely aesthetic aspects of forest users concerns may not be a sufficient condition to boost satisfaction with management practices. Other aspects may also be important (e.g. recreation opportunities, recreation infrastructure, wildlife, etc.). Another significant finding indirectly related to forest management is simply that socio-cultural aspects place are more important than ecological elements.

Research Objectives

The specific, stated research objectives of this project were to delve deeper into what particular attributes of places are important in providing meaning to local residents. Our feeling as we commenced this work was that other work in this area was conceptually strong but empirically weak. Our intent was to develop a method for data collection that would allow us to be more empirically precise about what place attachment means at the individual level. Through our photo-assisted method we have helped people clearly articulate what it is about the places they live that attach them to those places. Specifically, we address the following questions in the research:

(1) How is sense of place and its constituent elements (attachment, satisfaction, and meanings) produced through personal experience with both socio-cultural and biophysical/ecological attributes of the spatial setting?

(2) How does sense of place vary (a) between and within spatial settings, as a function of the physical landscape or forest management regime; (b) within spatial settings

(according to differences in social actors, such as dependence on the forest sector for employment, time spent in the setting, knowledge of the setting, etc).

(3) How do broader forest values and cultural differences affect sense of place? Are values such as biocentrism typically manifested in place meanings that reflect these values, do place attachment and satisfaction levels differ for people with biocentric versus anthropocentric orientations?

Key Findings

The most important aspect of this project was the development of an innovative method for studying and understanding sense of place. We created a photo-assisted research method and employed the method in six different communities across Canada. The photo-method consists of recruiting volunteers to participate in a 3-staged process. First, recruits are given an orientation to the project and instructions. At this orientation we distributed 24-exposure, disposable cameras to each volunteer and gave them instructions to take two photographs each of the 12 things that most attached them to their community and/or surrounding area. We asked for two photographs of each thing to increase the chance of obtaining a quality, usable photograph and to limit the total number of photographs in our database. At times it was a challenge to convey the nature of the assignment without leading the participants or planting ideas about what to photograph. We gave oral instructions, but a detailed set of instructions were also provided with a copy of the consent form that respondents kept (see Box 1). For example, we told them that they could photograph places, people, or things, that they could take photographs of things to represent people, such as a friend's house to represent the friend if they were uncomfortable asking people permission to photograph them. We instructed participants to try to distribute their total set of photographs to reflect their overall attachment to the place. For example, if they felt mostly attached to the people in a place, as opposed to the landscape, they allocate more of their 12 shots to photographs of people.

The second stage of the project was for the participants to go out in their communities and in the surrounding landscape to take their photographs. Once this was done, we developed two sets of their photographs and arranged an interview time. The third stage consisted of interviews with the participants about their personal history in the community as well as questions regarding their overall attachment to the place. We also asked them to describe each of their photographs and why they took them (e.g. what sort of attachments and meanings they represented). Interviews generally lasted between 45 minutes to two hours. It was in the detailed descriptions of the individual photographs that the best material on place attachment and place meanings emerged. We recorded the interviews with digital audio recorders so that we could transcribe their quotes for future data analysis.

When the field work was completed, research assistants transcribed interviews and created a database with the photos and the participants' verbatim text. All four researchers collaborated to the create categories that we used to classify the data. It was a negotiated process that balanced the overall goal of comparing social-cultural aspects of

place attachment with the field staff's close association with the data and their intuitive sense of what categories would make sense. In this way, the category creation was a mix of a grounded theory approach, in which categories emerge from the data, and a more hierarchical, expert approach, where the categories are predetermined by the researchers. We ended up with 12 categories, six related to socio-cultural aspects of attachment and six related to ecological aspects of attachment (see Table 1).

Table 1: Summary of categories created from the photographs and narratives

Category	Socio-cultural or Ecological	Description
1. Recreation Infrastructure	Socio-cultural	Baseball field; soccer field; in-town walkway
2. Recreation opportunity/area	Ecological	Waterfalls for swimming; rock-climbing place
3. Landscape/Natural assets	Ecological	General beauty; sunsets;
4. Forest Area	Ecological	Specific forest lands
5. Water Area	Ecological	Lakes, shores, beachcombing
6. History and Heritage	Socio-cultural	Veteran's memorial; symbols of the past
7. Flora/fauna; Natural things	Ecological	Flowers; animals; habitat
8. Family and Friends	Socio-cultural	Neighbors,;relatives; friends
9. Home	Socio-cultural	House; garden; yard
10. Work	Socio-cultural	Job
11. Work place or type	Ecological	Employment setting
12. Social Cohesion and community pride	Socio-cultural	Pride in volunteers; town festivities;

Our next step was to classify the photographs into these categories. We conducted field research in 6 sites, two in Manitoba, two in Newfoundland, and two in Alberta. The Alberta and Newfoundland fieldwork was done in 2001. The Manitoba field work was done in 2002. To date, all the 2001 data have been classified and analyzed. The analysis consisted of each researcher (two professors and two graduate students) individually categorizing the photographs. In the four sites for which we conducted the analysis, we had a total of 76 participants that produced a total of 912 photographs. Using three windows on a laptop or desk top computer the researcher would view the photograph, read the associated text, and then choose the most appropriate category and record that "vote" on a spreadsheet. At times, given the multidimensional nature of the text, it was very difficult to make only one selection. Often a respondent would describe attachment to something in the foreground, something in the background, and something historical or aesthetic. In this way, our consensus, or lack of consensus in our interpretations of the photographs became data in and of itself. Rather than viewing our lack of total consensus in how we categorized the data as a weakness in the method, we interpret this as evidence for the multidimensional nature of place attachment. The qualitative nature of the research design allowed for this finding to emerge. Had we forced people to make choices in a more objective, categorical research design, we would not have discovered this important finding.

Key Deliverables:

There have been a number of significant outputs of this project and some are still in progress. Perhaps most importantly, the project offered training opportunities to two graduate students. One student, Marke Ambard, recently graduated from the University of Alberta (Department of Rural Economy). He was involved with the project from the beginning. He conducted field work in the Alberta and Manitoba sites. His thesis involved a detailed exploration of the Alberta site data and he successfully defended his thesis in the fall of 2003 (Ambard 2003). The second student, Sara Wallace, commenced work on the project as an undergraduate. She did field work in the Newfoundland sites and used that data for her undergraduate thesis in the Faculty of Forestry (Wallace 2002). She then entered graduate school on another SFMN project, but she has continued to be involved with the sense of place work.

Over the last two years, as our data became available, we have presented results at several conferences. Actually, before the results were even in we were presenting our approach. In 2002 and 2003 we presented at four conferences – two in Canada and two in the United States. The conference participants represent a broad cross-section of the types of people we suspected would be interested in this work. We presented to foresters, forest scientists, and other researchers interested in sustainable forest management at the SFM Network's own conference in Edmonton in 2002 (Beckley et al. 2002). We also presented to both the International Symposium on Society and Resource Management (interdisciplinary social science audience) in Bloomington, Indiana (Stedman et al. 2002), and to the Rural Sociological Society (Beckley et al. 2002) at their annual meeting in Chicago. This past summer we presented results from the Newfoundland sites to the Rural Sociological Society at their annual meeting in Monteal (Wallace et al. 2003).

We currently have three manuscripts in the publication process. On is under review and two are scheduled to go for review by Febraury 2004. The first manuscript is a detailed explication of the photo-assisted research method. It comprises both a "how to" (we have received many enquiries from people interested in replicating the approach), and a self-critical assessment regarding how the method could be improved. This paper will be submitted to *Society and Natural Resources*. The second manuscript is more data driven and involves intra and inter-community comparisons in the Newfoundland and Alberta sites. This manuscript will be submitted to the journal *Rural Sociology*. Finally, after one of our conference presentations, we were solicited to submit a manuscript to the *Journal of Leisure Research* for a special issue on innovative social science methods that involve photography (See Appendix 1 for a full listing of conference papers and journal manuscripts that have resulted from this project).

During and prior to the term of this research project both principle investigators had papers appear related to sense of place research. Dr. Stedman has published three articles in total, two that have been informed by this project, if not directly derived from its data. The first article examines sense of place in a forested setting in Wisconsin (Stedman 2003a), while the second outlines a research program to quantify aspects of sense of

place (Stedman 2003b). Dr. Beckley's paper is a theoretical piece on place attachment and factors that might affect it. This paper served the conceptual frame for the empirical work that we undertook (Beckley 2003). While it was written in 1998/99, it was only published this year. Dr. Stedman (1999) also has previous research in this subject area. The point of mentioning these earlier products is to demonstrate that we are becoming widely published in this area and are recognized as key contributors to this type of research in Canada and North America. The SFMN funding has solidified that status. Dr. Stedman has been hired by the U.S. Forest Service to organize a Sense of Place Planning Workshop in the Pacific Northwest Region in the summer of 2005 – another example of how this research will be put into action in a management context by an agency with land management responsibilities.

We received roughly half the funding that we asked for to conduct this research. As a result we needed to scale back our original research plan. In addition to the deliverables listed above, we originally intended to conduct a mail survey in our field sites to determine the degree to which our non-random, individual participants reflected the attachments and sense of place of their broader communities. The intent was to also create a dialogue between objective, survey type data, and the more subjective, photo/text data created through the photo-assisted method. The available funds did not permit us to pursue this angle of the research. As well, we intended to create a web-based data storage and retrieval system that would archive both photos and text on a map-based website. This would allow participants to see their own and others' contributions to the project. It would also depict the geographical distribution of the photographs. We believe that such a data storage system could be useful to forest managers insofar is it would identify key landscape features or areas of special significance, or simply specific places to which people have strong attachments. Both of these associated projects may still feature in our future research plans and programs.

Advancement in Knowledge on Sense of Place:
In the short literature review accompanying the original proposal for this research, we suggested our intent to integrate knowledge from two related, but distinct clusters of research that treated sense of place and place attachment. The first cluster derives from a sociological tradition of examining variables of community attachment. This research relies primarily on survey research methods. It also focuses on a number of key variables, determined by the expert researchers (e.g. length of residence, etc.). This literature has traditionally privileged socio-cultural factors in place attachment and has virtually ignored ecological sources of attachment.

The second cluster of studies derives from natural resource management and recreation studies of specific geographical places (parks, monuments, wilderness, etc.). This body of work deals with environmental or ecological variables explicitly (e.g. the biophysical attributes of specifics geographical places), but little, if any, emphasis is placed on socio-cultural components of place attachment. In actuality, there are often strong interactions between these classes of variables.

Our research has extended the existing knowledge in two ways. First, we have tried to create a conceptual bridge between these two distinct literatures that endeavor to measure place attachment and community attachment empirically. Other conceptual work has made similar points with regard to the need to consider both components of attachment, but none of these, to our knowledge, have followed that up with suggestions of a method that would suitably capture both aspects of attachment. The photo-assisted method is the second major advancement of this work. It has created a great deal of interest around North America. The photo-assisted method that we have developed does not bias results toward one or the other type of attachment. Respondents are free of structural constraints inherent in survey research questions. We explicitly ask them to consider the balance between their attachment to ecological and socio-cultural factors and to distribute their choice of subjects in their photographs accordingly. The in-depth interviews, coupled with photographs creates a very rich and meaningful database. The narrative text or photographs alone are not nearly as powerful as the two together. The next challenge lies in being able to foster the use of such data in actual forest planning exercises.

Benefits to partners:
The benefits of this research to SFMN partners are relatively indirect, but that does not make them less important. This research was exploratory in nature. We attempted to discover the fundamental nature of sense of place and its constituent parts. There is more and more recognition that the publics' perceptions of forest management matter. Some managers (both government and industry) struggle with what they perceive to be a fickle public with capricious demands and preferences for forest management. Sometimes these managers attempt to deal with single issue problems with one dimensional solutions. For example, clear cut size limitations for aesthetic purposes. Our research, while not narrowly bound to address forest management per se, demonstrates that peoples' attachment to where they live are complex constructs that involve history (personal and collective), aesthetics, recreational preferences, preferences for certain types of wildlife, desire for meaningful work and social interactions with fellow residents and the like. Assent or dissent for existing forest management practices is likely to reflect this diversity of inter-related factors. Strategies to mitigate public discontent need to deal with the reality of this complexity.

A more direct benefit to forest managers is the possibility of adapting and applying our methodological tool in forest management and planning. We have already been approached by one SFMN partner about the possibility of doing a similar experiment with the photo-assisted method in a planning exercise. This will be explored further in the next section.

A third benefit to resource managers is the knowledge that forests, in and of themselves, comprise a relatively small component of residents' attachment to place. This does not mean that forests do not provide meaning, or play a role in place attachment, or that people would not care if they are mistreated or poorly managed. The point is that in relation to things like home, family, work, and even history, forests appear less important in residents' connection to their home communities. Those of us who work in the forest sector tend to elevate the importance of forests because they provide more meaning and

play a larger role in our own lives. In a sense this research provides a bit of a reality check given that our research participants were drawn from all walks of life and were not exclusively people who work in forestry, or who are interested in forest policy or planning. To regular citizens, forests, in and of themselves, are *relatively* unimportant. Foresters tend to view this as a "bad news" story, but we tend to interpret this differently.

Management and policy implications and future follow-up:
The management implications of the above observation and interpretation (e.g. that people care less about forests in relation to other factors that provide meaning and attachment to place in their lives) are not that all is well in the world of forestry and that there is no need to innovate with respect to developing new and better tools for involving the public in forest management and planning. For those foresters who lament the absence of an informed and active public (and they are legion), we feel that our photo-assisted method represents a great tool for incorporating public input into forest planning. This observation comes in part from this funded project, but also from Dr. Beckley's project on public involvement in Newfoundland. Through that project we have perceived persistent problems in recruiting and maintaining the interest of a broad spectrum of stakeholders in forest planning activities. The groups that we observed participating in forest planning in 2002 were small, relatively homogenous, and were mostly comprised of government, industry representatives and several directly affected stakeholders (such as commercial outfitters). Few members of the general public become involved in forest planning. We believe that a modified version of the photo-method could be developed and used more explicitly in a forest planning context.

Foresters are very familiar with maps as well as with concepts such as variable retention harvests. The public, is much less experienced with maps, particularly GIS maps that may depicts a wide range of forest attributes. As well, you could describe to an individual the difference between cutblocks with straight edges or irregular edges, or retention harvests with 12% or 30% residual structure (either in clumps or scattered across a cutblock), but these have little meaning to the average citizen. The technical nature of forest planning, the language used, and the tools employed can all be confusing and off-putting to citizens. We feel that the photo-method has great potential to democratize and invigorate public involvement in forest planning. Giving cameras to stakeholders with the directive to photograph what they like and don't like on the landscape, either in terms of stand structure, age class or forest practices, could provide valuable information for planners. Erdle and Sullivan (1999) argue that if the public can express their forest values in terms of these variables, foresters can deliver the goods. We believe that photo-methods could be a powerful tool to help the public (and/or specific stakeholders) express their forest values (general) and management preferences (specific) in terms that make sense to them, but also terms that foresters can actually use to create improved management prescriptions. This adaptation of our method could represent a real form of democratic participation in action.

The reaction we have received to the photo-method has been so positive, from both the public and forest managers that we intend to pursue a modified version of this tool in future research. However, we would like to tie that research to a real planning exercise,

using SFMN partners and licenses to test the efficacy of such a tool. There will be several challenges, in recruitment of participants, articulating the assignment, in devising concrete and usable information from the output for managers (what does the sum total of the photos imply for management?), etc. However, the experience gained from implementing one iteration the photo-method will prove invaluable for such an experiment. We already have several ideas for how we would improve some technical aspects of the method. For example, rather than using disposable cameras, we would use digital cameras. And instead of having the respondents take the photographs first, and on their own, with interviews to follow, we have the field researcher accompany the participant and conduct the interviews regarding the photographs as they are taken. Participants would still be provided with a set of their photographs and encouraged to show up to the planning meetings with their photographs and to be prepared to discuss them. However, even if they do not choose to attend the meeting, their preferences are recorded, and points of interest or values at risk may be digitized for use in GIS mapping. As well, there will be the accompanying narrative explaining why the subjects of the photographs are important to them, what types of harvesting they prefer, which wildlife are important to them, etc.

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Appendix 1: Summary of output directly related to SFMN project funding:

Type of output	Title	Authors	Publication or Conference	Status
Journal article	Sense of place and forest science: Toward a program of quantitative research	R. Stedman	*Forest Science*	Completed
Journal article	A picture and a 1000 words: Using resident employed photography to understand attachment to high amenity places	R. Steadman, T. Beckley, S. Wallace, M. Ambard	*Journal of Leisure Research*	Under review
Journal article	A description and critique of a new method for understanding sense of place	T. Beckley, R. Stedman, S. Wallace, and M. Ambard	*Society and Natural Resources*	In Progress
Journal article	Socio-cultural and ecological dimensions to sense of place	S. Wallace, T. Beckley, R. Stedman, M. Ambard	*Rural Sociology*	In Progress
Conference paper	New methods for articulating sense of place	T. Beckley, R. Stedman	Rural Sociological Society Annual Meeting 2002 (Chicago)	Completed
Conference paper	Socio-cultural and ecological dimensions of attachment to place: Results from a photo-assisted method	T. Beckley, R. Stedman, S. Wallace, and M. Ambard	Rural Sociological Society Annual Meeting 2003 (Montreal)	Completed
Conference paper	A picture and 1000 words: Sense of place through photo interpretation	R. Stedman and T. Beckley	International Symposium on Society and Resource Management	Completed
Conference proceeding	New Methods for understanding sense of place	T. Beckley, R. Stedman, M. Ambard, S. Wallace	*Advances in forest management: From knowledge to practice*	Completed
Masters Thesis	A Photo-Assisted Exploration of Sense of Place in Hinton and Jasper, Alberta	M. Ambard	University of Alberta, Department of Rural Economy	Completed
BScF. Thesis	Forest users sense of place: Implications for forest management	S. Wallace	University of New Brunswick, Faculty of Forestry and Environmental Management	Completed