

## Campers' Place Bonding: a Case Study in Worak-san National Park

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**Abstract :** Place bonding, defined as the extent to which a person values or identifies with a particular environment, has focused as a research topic recently. This paper investigates the dimensions of place bonding for Worak-san National Park campers to enhance managers' ability to address deeper landscape meanings. Worak-san National Park campers (n=416) were surveyed during summer and fall of 2004 to collect the data. Confirmatory factor analysis of the data demonstrated that place bonding was composed of four dimensions such as place identity, familiarity, place dependence and place belongingness. The results of this study can provide valuation information for developing management actions to enhance park visitors' quality of recreational experiences.

**Key words :** bonding, identity, familiarity, dependence, factor analysis

### Introduction

Person-setting relationships have been conceptualized in diverse disciplines under many similar terms such as place bonding (Hammit *et al.*, 2004), place dependence (Stokols and Shumaker, 1981), sense of place (Hummon, 1992), place belonging or belongingness (Proshansky *et al.*, 1983), topophilia (Tuan, 1980), etc. Underlying these conceptions is the idea that a sense of "place" results from people attaching meaning to what otherwise would simply be "space" (Moore and Scott, 2003).

Interest in understanding the bondings that people form with places can be found in a variety of areas such as residents' bondings to natural environment and tourism dependent communities (McCool and Martin, 1994), local residents' bonding to nearby special place (Eisenhauer *et al.*, 2000), visitors' bondings to recreation settings (Williams *et al.*, 1992; Moore and Graefe, 1994, Bricker and Kerstetter, 2000; Vaske and Kobrin, 2001; Warzecha and Lime, 2001; Kyle *et al.*, 2004), and place bonding among second home owners (Jorgensen and Stedman, 2001).

Place bonding is a positive emotional bonding that develops between individuals or groups and their environment (Altman & Low, 1992). Through personal bondings to places, people acquire a sense of belonging and purpose that gives meaning to their lives (Buttimer, 1980).

Because place bonding refers to the emotional linkage of people to a particular environment (Hunter, 1978), forest and natural resource managers should take it granted that lands under their stewardship include settings that facilitate specific kinds of outdoor activities and experiences. Understanding the degree of place bonding among recreationists may have important practical applications. For example, park managers can use visitors' place bonding information in planning and inventory processes. Resource attributes relating to place bonding should be carefully surveyed and treated for visitors' recreational experience. Place bonding of recreation settings can become an important concern with setting specific activities because the setting users are commonly experienced individuals who have developed a strong bond with settings over time. For example, Williams *et al.* (1992) challenged the prevailing commodity metaphor for recreation settings, which views settings as if they were consumer products, and presented data on the emotional and symbolic bondings people have to wilderness places. Mitchell *et al.* (1993) also discussed several possible ways of incorporating bondings into the planning process for public land management.

Place bonding may be a fruitful means of segmenting users (Warzecha and Lime, 2001). Moore and Graefe (1994) suggested that people who are attached to a place may be more willing than others to donate their time and money on its behalf. Citizen's groups frequently take action to protect what they consider to be special places

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(Scenic America, 2001). People want the special places to be treated carefully and with respect (Schroeder, 2002).

Managers and researchers thus keep in mind the dynamics of how certain settings become special places that users, neighbors, and voters may be inclined to support and protect. By treating special places with care, managers can help ensure that such places will always be available to provide highly valued experiences to people.

The purpose of this study was to examine the place bonding for campers. More specifically, the objectives of this study were to (1) document campers' bonding to Worak-san National Park; and (2) identify campers' bonding dimensions. The results of this study will further understanding of place bonding and the understanding of the place-related experience of the park campers from the results of this study should help managers develop a more complete, more sensitive understanding of their management challenges (Greene, 1996).

## Method

### 1. The study area

Worak-san National Park consists of 284 km<sup>2</sup> of rugged mountains and valleys. The park is located in Jechon, Chungbuk. The park was established in 1984 to protect some of the most scenic and significant landscapes in Korea, and to provide opportunities for recreation and nature appreciation. Worak-san Forest National Park has a wide range of attractions and attracts a large number of visitors throughout the year (640,000 visitors in 2003). Park managers are faced with conflicts from visitor pressure for services and facilities, and capacity of the park to meet visitor expectations. A key reason why this park was selected for study is that the popularity of the park has led to large numbers of visitors, with the potential for overuse and serious environmental degradation.

### 2. Data collection

A sample of 416 campers in Worak-san National Park was surveyed during the summer and fall of 2004. Contact with survey respondents was made at entrances of campsites by trained interviewers. The selected campers were first briefed about the study, and those agreeing to participate were then interviewed. The refusal or non-response rate to be interviewed was less than 1%. Non-response bias is low, therefore.

The sampling scheme for the survey was stratified by survey sites, weekday-weekend strata, and time strata throughout the day. Each day of the sampling period was divided into two sampling blocks: morning (7:30 a.m. to

12:30 p.m.) and afternoon (1:00-6:00 p.m.). Respondents were asked to complete a set of questionnaires consisted of past recreation history, basic personal profiles, and measure of place bonding.

### 3. The study instrument

The on-site questionnaire included questions about campers' socio-demographic characteristics (i.e., age, education, gender, household income, residence) as well as their patterns of park use.

Place bonding was measured through the use of a place bonding scale developed by Hammitt et al. (2004). This scale included 26 items with five answer categories (1=strongly disagree to 5=strongly agree) representative of the five conceptualized dimensions of place bonding (i.e., familiarity, belongingness, identity, dependence, and rootedness).

## Results

### 1. Respondents

There were 416 respondents in this study: 48% were men, 52% were women. Respondents ranged in age from 16 to 66 years with a mean age of slightly over 35 years. Most of the respondents (90%) were high school or college graduates (Table 1). These demographic characteristics are similar to those found in previous research such as studies on national park use motivation by Kwon *et al.* (2003) and on management preference of national park users by Youn and Shin (2001), both of which characterized urban park visitors as being in their 30s or 40s and with high school or college education.

### 2. Place bonding

Overall place bonding for the study area was fairly medium (mean=2.83, S.D.=0.67) among campers. Fre-

**Table 1. Some of respondents' characteristics of this study.**

Variable	N	%
Gender		
Male	198	48
Female	216	52
Age (yr)		
10-29	141	34
30-39	114	27
40-49	108	26
50-59	44	11
over 60	8	2
Education		
Junior/High school	186	45
University or college	218	52
Graduate or professional degree	12	3

**Table 2. Summary of responses to place bonding scale items.**

Item	Response by percentages					Mean $\pm$ S.D.
	1	2	3	4	5	
I am fond of Worak-san	0.5	1.7	29.1	42.1	26.7	3.93 $\pm$ 0.81
I feel like I belong at Worak-san	1.9	17.5	37.7	29.3	13.5	3.35 $\pm$ 0.98
I would enjoy camping at another site just as much as I do camping at Worak-san	0.7	7.2	25.0	51.0	16.1	3.74 $\pm$ 0.84
Worak-san is best place for camping	1.0	9.6	27.9	41.1	20.4	3.70 $\pm$ 0.93
Worak-san is very special to me	3.1	29.6	37.0	18.8	11.5	3.06 $\pm$ 1.03
Camping at Worak-san says a great deal about who I am	5.5	32.7	39.2	17.3	5.3	2.84 $\pm$ 0.95
I know Worak-san like the back of my hand	21.9	40.9	20.9	11.1	5.3	2.37 $\pm$ 1.10
No other place can compare to Worak-san for camping	5.0	25.2	44.0	20.0	5.8	2.96 $\pm$ 0.94
I am very attached to Worak-san	5.3	26.7	39.2	20.4	8.4	3.00 $\pm$ 1.01
I rarely ever camp any other place than Worak-san	16.6	46.9	18.0	15.4	3.1	2.41 $\pm$ 1.03
I wouldn't substitute any other area for the camping I do at Worak-san	10.8	36.3	35.8	12.7	4.3	2.63 $\pm$ 0.98
Worak-san is the only place I desire to camp	12.3	39.2	29.3	14.4	4.8	2.60 $\pm$ 1.03
I identify strongly with Worak-san	11.8	36.8	34.6	12.5	4.3	2.61 $\pm$ 0.99
I have camped at Worak-san many times and I am quite familiar with it	14.7	41.3	26.0	13.2	4.8	2.52 $\pm$ 1.04
I have many memories of camping at Worak-san	13.9	34.4	24.3	17.8	9.6	2.75 $\pm$ 1.18
I feel like Worak-san is part of me	7.0	35.6	33.2	19.0	5.3	2.80 $\pm$ 0.99
Camping at Worak-san is more important to me than camping at any other place	6.5	35.6	36.8	15.9	5.3	2.78 $\pm$ 0.97
I get more pleasure out of camping at Worak-san than from camping in other places	6.3	26.4	39.2	21.6	6.5	2.95 $\pm$ 0.99
I consider only Worak-san when I go camping	14.2	49.3	22.4	10.6	3.6	2.40 $\pm$ 0.97
I feel connected to Worak-san	12.5	40.2	29.1	14.9	3.1	2.56 $\pm$ 0.99
If I could not camp at Worak-san I would not camp any more	21.9	53.8	16.1	5.8	2.4	2.13 $\pm$ 0.90
When I am at Worak-san I feel a part of it	11.1	36.8	33.9	13.7	4.6	2.64 $\pm$ 1.00
I could draw a rough map of Worak-san	28.1	43.3	15.9	7.9	4.8	2.18 $\pm$ 1.01
Worak-san is like a home to me	9.4	25.5	38.7	22.1	4.3	2.86 $\pm$ 1.00
Worak-san means a great deal to me	8.2	31.3	35.1	19.5	6.0	2.84 $\pm$ 1.02
Worak-san makes me feel like no other place can	7.9	25.7	40.1	20.4	5.8	2.90 $\pm$ 1.00

quency distribution of the 26 items used to measure place bonding suggested that campers most strongly agree that they fond of Worak-san, and Worak-san is the best place for camping (Table 2). The item they most strongly disagreed with was "I could draw a rough map of Worak-san."

A principal-components analysis with varimax rotation was employed to determine the underlying dimensions of place bonding. A varimax rotation was used because it minimizes the number of variables that have high loadings on each factor (Norusis, 1993), thus simplifying the interpretation of factors (Kim and Mueller, 1978). The final solution produced four factors with eigenvalue greater 1.00 and explained 62.8% of the total variance. Items were assigned to each factor on the basis of the highest factor loading. The results of the factor loadings, factor mean, and factor alpha are shown in Table 3.

The first factor titled "Place Identity" consisted of 11 items referring to individuals' emotional or affective bonding to the study area. It had a mean of 2.68. The place identity dimension had an eigenvalue of 12.22, and accounted for 46.99% of the variance explained. The overall alpha for this factor was .93.

The second factor was titled as "Place Belongingness." This dimension consisted of 7 items and exhibited an overall mean of 3.37. The place belongingness dimension had an eigenvalue of 1.84, an alpha of .82 and accounted for 7.06% of the variance explained.

The third and fourth factors, consisted of 4 items respectively, were titled "Familiarity" and "Place Dependence". The familiarity dimension exhibited an overall mean of 2.45, had an eigenvalue of 1.22, and accounted for 4.69% of the variance explained. The overall alpha on this dimension was .82. The place dependence refers to place bonding based on the setting's ability to facilitate

**Table 3. Factors, items, means, and factor loadings of place bonding.**

Factored dimension (item)	Factor	Factor	Factor	% of variance explained	
	Loading	Mean	Eigenvalue		
<b>Place Identity</b>		<b>2.68</b>	<b>12.22</b>	<b>.93</b>	<b>46.99</b>
I identify strongly with Worak-san	.66				
I feel like Worak-san is part of me	.70				
Camping at Worak-san is more important to me than camping at any other place	.62				
I get more pleasure out of camping at Worak-san than from camping in other places	.53				
I consider only Worak-san when I go camping	.56				
I feel connected to Worak-san	.75				
If I could not camp at Worak-san I would not camp any more	.58				
When I am at Worak-san I feel a part of it	.76				
Worak-san is like a home to me	.69				
Worak-san means a great deal to me	.64				
Worak-san makes me feel like no other place can	.67				
<b>Place Belongingness</b>		<b>3.37</b>	<b>1.84</b>	<b>.85</b>	<b>7.06</b>
I am fond of Worak-san	.66				
I feel like I belong at Worak-san	.55				
I would enjoy camping at another site just as much as I do camping at Worak-san	.71				
Worak-san is best place for camping	.72				
Worak-san is very special to me	.49				
Camping at Worak-san says a great deal about who I am	.43				
I am very attached to Worak-san	.47				
<b>Familiarity</b>		<b>2.45</b>	<b>1.22</b>	<b>.82</b>	<b>4.69</b>
I know Worak-san like the back of my hand	.79				
I have camped at Worak-san many times and I am quite familiar with it	.49				
I have many memories of camping at Worak-san	.72				
I could draw a rough map of Worak-san	.70				
<b>Place Dependence</b>		<b>2.65</b>	<b>1.04</b>	<b>.78</b>	<b>4.01</b>
No other place can compare to Worak-san for camping	.51				
I rarely ever camp any other place than Worak-san	.67				
I wouldn't substitute any other area for the camping					
I do at Worak-san	.65				
Worak-san is the only place I desire to camp	.66				

campers' behavior. The place dependence dimension exhibited an overall mean of 2.65, had an eigenvalue of 1.04, and accounted for 4.01% of the variance explained. The overall alpha on this dimension was .78.

## Discussion

Many previous studies have been conceptualized that place bonding consists of two dimensions, place identity and place dependence (Proshansky *et al.*, 1983; Williams and Roggenbuck, 1989; Williams *et al.*, 1995). The result of this study revealed that other dimensions (i.e.,

familiarity and place belongingness) exist. Familiarity represents cognitive knowledge of the place. On the other hand, place belongingness included statements that emphasize the place as being integrated in a person's life. This result confirms several studies' suggestion (Bricker and Kerstetter, 2000; Hammitt *et al.*, 2004) indicating that there are more than two dimensions in place bonding.

Recreational pursuits within public land such as forested national parks are not only increasing, they are becoming more diverse and highly specialized within certain activity groups (Bricker and Kerstetter, 2000;

Shin *et al.*, 2003). With this diversity comes an increased challenge for managers to meet the demands and needs of a varied and complex population. Results from this study provide support for the idea that people develop bonding to outdoor recreation area and amenities that are frequently visited. Forest and recreation resource managers should actively seek to identify special places and manage them with particular care.

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