

Place Dynamics in a Mixed Amenity Place: Great Salt Lake, Utah

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Abstract

While considerable literature examines place dynamics, including place meanings, sense of place and place attachment, nearly all these works focus on people's relationships with high amenity places such as mountain or lakeside resort-type settings. This exploratory study uses survey data to explore place dynamics among residents living near Utah's Great Salt Lake (GSL), a setting known among locals for negative images as well as positive — a mixed amenity place. Findings reveal that while sense of place and place attachment are related to people's involvement and experience with the place, as seen in prior studies, these relationships are more nuanced in this setting. Place attachment is considerably less widespread; for some, GSL holds negative meanings; and some appear to have no real sense of place with GSL. These dynamics not reported in studies of high amenity places are important to a better understanding of the complexities of people's relationships with places.

Keywords: *Place, mixed amenity places, sense of place, place meanings, place attachment*

Introduction

The relationships between people and places have been explored broadly in the social sciences. Sense of place (e.g. Jorgensen & Stedman, 2001; Relph, 1976), place attachment (Tuan, 1977; Williams et al., 1992; Williams & Vaske, 2003), and place meanings (e.g. Relph, 1976; Stedman, 2008), among other place-related constructs, have been the focus of both theoretical and empirical work. Most of the settings where these dynamics have been studied to date have been high amenity places, for example the lakes country of Vilas County, Wisconsin (e.g. Jorgensen & Stedman, 2001), national parks and monuments in southern Utah (Eisenhauer, Krannich & Blahna, 2000), recreation sites such as the Appalachian Trail (Kyle et al., 2003) and wilderness areas in various states (Williams et al., 1992). While these studies have been highly informative and useful, nearly all have focused on places people find easy to love.

Amenities have been defined broadly as qualities or attributes that make a location attractive as a place to live and work (Green, Deller & Marcouiller, 2005; McGranahan, 1999). Following this, a high amenity or amenity-rich place is a place with much of that attractiveness. There are many other kinds of places, however. Few places people live are as amenity-rich as the settings in these prior place studies. The current study considers place dynamics among people living near a different type of setting — one that, while having many positive attributes, has also been described in considerably less flattering terms. The broad social science literature on place has paid little attention to the dynamics of what I refer to as a mixed amenity place, defined as a place for which people could be expected to have mixed perceptions. This includes groups of people and even individuals having positive, negative and neutral perceptions of the same place. Mixed amenity places lack the high grandeur of places typically considered high amenity places, that is, areas with strong recreation and aesthetic features such as resort settings and national parks. Additionally, mixed amenity places may have traits some people find objectionable, irritating, or off-putting. On the other hand, these places also have traits people find attractive. There may be conflict or tension over these various ways the place is perceived.

Utah's Great Salt Lake (GSL) is an example of this type of place. As an illustration of the dynamics seen in these settings, the comprehensive management plan for the lake notes that, "Perceptions of GSL vary among local residents. Some find that the lake offers great beauty, quality recreation and significantly enhances the quality of their lives. Others view the lake negatively and find little value in GSL" (GSLPT, 2000, 123).

The prior theoretical and empirical work on place dynamics has provided a good foundation of understanding not only about people's relationships to places, but also about why this matters. Research on sense of place, place attachment, and caring for a place has indicated that these dynamics can be positively associated with valuing the environmental traits of the place, environmental concern and environmentally responsible behavior, sensitivity to environmental impacts, and increased commitment to the place (Kaltenborn

& Williams, 2002; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001; Williams et al., 1992). The level of one's attachment to a place has been linked to the degree of support for various resource management actions and the perception that management objectives are important (Kaltenborn & Williams, 2002; Warzecha, Lime, & Thompson, 2000). These correlations demonstrate the importance of developing an understanding for place dynamics in all types of settings, as people with place attachment, for example, can serve as a resource for the place. In a mixed amenity place, where there are differing perceptions of the place and its value, understanding people's sense of that place can assist resource management, policy decisions, education endeavors, and other efforts related to the care of the place.

To begin to examine these dynamics, this exploratory study uses survey data to consider how place dynamics such as sense of place and place attachment operate in mixed amenity places, using GSL as an example. In addition to assisting in local decision-making, the findings can also be compared to what has been reported in prior work on high amenity places, which may help us better understand not only how these dynamics differ in qualitatively different settings, but also place dynamics more broadly.

Background: Place dynamics

A large and diverse social science literature focuses on the relationships between people and places. Place has been defined as a geographic setting that holds meaning and value (positive, negative, or neutral) for people, which can be distinguished from "undifferentiated space," that is, settings people have not attached value to (Tuan, 1977, 6; see also Galliano & Loeffler, 1999). This study focuses primarily on sense of place and place attachment, as well as the meanings places hold, for people who live nearby. As there has been much overlap in how these terms are used within the place literature, authors need to explain how they are using the constructs in any given work on place dynamics (e.g. see Farnum, Hall, & Kruger, 2005; Patterson & Williams, 2005; Trentelman, 2009a). To that end, descriptions of these terms and their usage in this work follow.

Place meanings

Relph (1976) argued that the significance of places has less to do with the places themselves and more to do with the meanings people give them. Place meanings describe what kind of place the setting is to the people who hold the meanings (Stedman, 2008). While place meanings are indicative of sense of place, the concepts are not synonymous (Stedman, 2008; Trentelman, 2009a). Since a place may hold very different meanings for different people, place meanings are typ-

ically examined qualitatively (Stedman, 2008; Williams 2008).

Sense of place

This concept refers to the sense that one "knows" a particular geographic setting, and what that knowledge is in terms of cognitions and observations as well as affective sentiments about that setting. It can also include the relationships between people and that place. Sense of place is one's personal orientation to the setting, and is expressed in the meanings the place holds at individual, community, and/or cultural levels. Sense of place is most commonly considered to be based in experience with the place, both subjective personal experience as well as shared, collective experience (Farnum et al., 2005; Galliano & Loeffler, 1999; Hummon, 1992). It should be noted that a sense of place is not necessarily positive and may include evaluative components.

Place attachment

Conceptualized as a deep connection to a place that may be unrelated to cognition or evaluation, place attachment considers the emotional or affective component of people's relationships with places. Those emotions are typically presumed to be positive, although place scholars generally agree that place attachment is a "complex, multifaceted concept" (Farnum et al., 2005, 3; also Riley, 1992). It has been argued that the social relationships affiliated with places, not just the place itself, make up a large portion of place attachment; attachment may be based on social relationships and processes more than particular landscape features (Beckley, 2003; Low & Altman, 1992). Alternatively, attachment may be very connected to unique, physical characteristics, and may depend at least in part on the geography of the place itself (Gieryn, 2000).

Both theory and research on place attachment and sense of place have made connections between people's experience with places and the strength of their relationships with those places, with people with more experience having a stronger sense of place and/or place attachment (e.g. Kyle et al., 2003; Tuan, 1977; Williams et al., 1992; Williams & Vaske, 2003). The issue is not resolved, however, as others have found that these correlations are weak (e.g. a meta analysis conducted by Backlund & Williams, 2004).

In his foundational book on place, Relph argued that "...our relationships with places are just as necessary, varied, and sometimes perhaps just as unpleasant, as our relationships with other people" (1976, 141), suggesting place scholars must be concerned with the entire range of experiences with places. However, most of the research conducted regarding place has focused on positive affect, a problem noted by several place scholars (e.g. Giuliani & Feldman, 1993;

Kyle et al., 2004). Additionally, it is easier to become attached to some places than other places (Taylor, Gottfredson, & Brower, 1985).

Kyle et al. (2004) asserted it is likely the nature of relationships with a place differ between local residents and visiting tourists/recreationists. It makes intuitive sense that residents, with their exposure to all aspects of the places they live, in all seasons and conditions including “the drudgery of place” (Relph, 1976, 41), would have more nuanced senses of these places than visitors, likely including a fuller range of affective responses to them. I argue that sense of place includes this diversity of responses to a place — that there can be a diversity of senses of the same place (sometimes from the same individuals).

In the present study, sense of place is used as a fairly irreducible concept (rather than multi-dimensional), referring to the internalization of some definition of the place of focus. A person has a sense of place if he or she holds taken-for-granted knowledge about that place (Trentelman, 2009b, 144). Identifying meanings a place holds is evidence of one having a sense of place. Place attachment is used as an indicator of positive affect that is important in its own right, and that also serves as one thing among several that are indicative of sense of place. Sense of place is used more broadly, and may include neutral and negative perspectives of a place in addition to attachment to the place. One may have a sense of a place without having place attachment, but one cannot have place attachment without having a sense of the place.

The Setting: Great Salt Lake

Great Salt Lake is one of the geographical features most associated with Utah and has played an important role in much of the history and culture of the state (see Figure 1). At the average lake elevation of 4200 feet above sea level, GSL is roughly 75 miles long and 30 miles wide, covering 1,500 square miles. The lake’s shoreline is diverse, with open lake, bays, and wetlands bordering communities in five very different counties (GSLPT, 2000).

GSL is a shallow, terminal lake. Since terminal lakes have no rivers carrying water away, they release water only by evaporation, leaving behind the residual minerals from the waters that feed them. The salinity level of the lake, directly related to the elevation, ranges from more than two to eight times saltier than the ocean (Millard, 2000). GSL is a shallow lake with an average depth of only 14 feet at its average elevation; it is 33 feet deep at its deepest point. It grows and shrinks annually, through cycles of spring run-off and sum-

mer evaporation. The lake has ranged between an historic low elevation of 4191 feet above sea level, covering 950 square miles, and a high level of 4211.85 in elevation, covering 2,300 square miles. These wide variations have resulted in substantial negative consequences at both extremes (GSLPT, 2000). For example, during the historic high water years of the mid-1980s, facilities at public bird refuges, state parks, and private duck clubs were destroyed, industrial facilities damaged, and low-lying residences and farmlands flooded by briny lake water. During years with low lake levels the exposed lake bed causes lake dust and sand storms, creating air quality problems in the area and property damage for those who live near the lake. Additionally, GSL has a long history of successful lake-side resorts, however resort after resort has failed after a time, due to being either flooded by rising lake waters or left high and dry by receding waters (GSLPT, 2000; Travous, 1980).

Great Salt Lake and its environs are of hemispheric ecological importance as a migratory flyway and breeding habitat for shorebirds such as grebes and pelicans. The lake is also an economic resource, with several lake-related industries such as mineral extraction and a brine shrimp fishery, and is a much-visited tourism destination particularly for out-of-state visitors. The size and chemistry of the lake interact with climate patterns. GSL has a moderating, maritime effect on local climate, while also creating a “lake effect” on weather, exacerbating winter storms in the surrounding areas and playing a critical role in northern Utah’s powdery snow (Bedford, 2005; GSLPT, 2000).

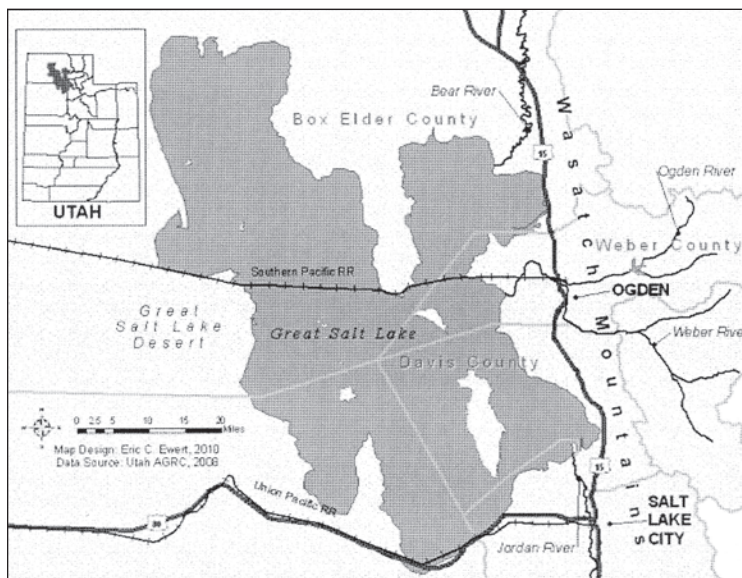


Figure 1. Map of Great Salt Lake Region, Utah (Map design by Eric C. Ewert, Ph.D., Weber State University, Ogden, UT)

Examples of recreational activities that occur on the lake, its islands and surrounding wetlands include sightseeing, birdwatching, waterfowl hunting, sail boating, and hiking (GSLPT, 2000). Despite this, due to few points of public access to the lake itself, combined with salinity levels and the impression that GSL is undeveloped, many local residents are not aware of the recreation amenities available at the lake (Brunson & Nicholson, 1999).

Challenges to GSL include a history of pollution, destruction of wetlands, competition for the fresh water that feeds the lake, treated waste water discharges into GSL from three of the state's most populated counties, a lack of water quality standards, and extremely high levels of mercury (Henetz, 2005; Jenkins, 2002; Westby, 2002).

It could be argued that, unlike owners of more typical lakefront property, those living closest to GSL are situated to experience fewer of the more positive aspects of the lake while suffering more of the negative. Many of these nearest neighbors cannot see the lovely lake views from their property. They experience the brunt of ever-shifting lake elevations, with briny waters at times threatening to flood and at others, receding from view, leaving dust from the exposed lake bed to blow in the wind. A strong hydrogen sulfide odor is associated with the lake; during some atmospheric conditions the odor blows into communities far from GSL (Bedford, 2006; FoGSL, 2005). Many locals and visitors consider the clouds of brine flies, mosquitoes, gnats and other insects another nuisance. This constellation of challenges has affected land uses and property values near GSL. A local journalist wrote, "Most of the 1.6 million people who live along the Wasatch Front rarely think about their vast neighbor... When the topic of the lake comes up, the first image that flashes through many minds is of a stinking, brine-fly-infested cesspool that occasionally floods highways and low-lying subdivisions" (Woolf, 1999, 274).

Due to these issues, some who live near the lake have experienced social stigma related to living close to GSL (Trentelman, 2009b). In a qualitative study that was a precursor to this present work, both focus group and interview participants talked about having their decision to live near the lake questioned, and experiencing teasing and derision from friends, people in their church congregations, and other residents from their communities. Their neighborhoods were called "the most miserable place" in the community and referred to as "the sewer." A lifelong resident in his seventies described children who lived near GSL being treated like second-class citizens when he was in school, and related this to social class since poorer families lived in the area near the lake while wealthier families preferred to live farther away from GSL. More currently, the comments lake neighbors reported hearing referred to the smell, the bugs, and other neg-

ative conditions people associate with GSL. Residents living near the lake felt marginalized. For example, an offensive industrial plant that deals with volatile chemicals, emits strong odors, and that residents feel is unsafe was built in the area; residents also described difficulty obtaining municipal services (e.g. culinary water). In an interview, a county official assumed people must live in the area because of low property costs, since "probably no one really wanted to be out by the lake."

A mixed amenity place

Again, a mixed amenity place is a place for which people could be expected to have mixed perceptions, particularly due to the presence of traits some may find objectionable along with traits some may find attractive. This may lead to conflict or tension over people's perceptions of the place. As noted, there are numerous traits that put GSL in this category. Local residents have been described as having mixed perceptions of the lake in both the media (e.g. Woolf, 1999) and in state documents (GSLPT, 2000). The lake has been portrayed on one hand as a tourist destination because of its beauty and uniqueness, and on the other, as an unattractive place with many irritating features. Although there are recreation opportunities available at the lake, many local residents are unaware of this (Brunson & Nicholson, 1999). And due to the lake's variable size and other physical features, residences located nearest to the lake lack the positive characteristics typical of lakefront property. Each of these things is evidence that Great Salt Lake can be characterized as a mixed amenity place.

For this exploratory study GSL serves as an example of the place dynamics of a mixed amenity place. The meanings GSL holds for its closest neighbors are considered, which are indicative of the types of sense of place residents have for the lake. Place attachment is also examined. It is expected that GSL will hold a variety of meanings for local residents, including some negative meanings. It is also expected that the mixed traits of this place will result in people's sense of place being somewhat nuanced, and that place attachment will exist for some, but in smaller proportions than has been reported in studies of high amenity places.

Methods and study area

Data for this study were collected through a survey of residents living close to the lake, conducted in 2007. A self-completion survey questionnaire was developed using data gathered in prior interviews and focus groups in the GSL area, information from secondary data and documents, and prior research on place dynamics (e.g. Davenport, 2006; Stedman, 2003; Williams & Vaske, 2003). The survey instru-

ment consisted of five sections, including respondents' views and attitudes about living near the lake, activities involving the lake, ideas about current issues and concerns related to GSL, feelings towards the lake, and sociodemographic background characteristics.

The majority of survey questions were designed for quantitative analysis, but several open-ended questions were included to allow participants to convey their thoughts directly. For example, place meanings are typically examined qualitatively, as allowing research participants to speak in their own words is essential for developing an understanding of what a place means to them (Stedman, 2008; Williams 2008). The responses to these open-ended questions play a large role in the present study. The survey generated more data than those considered here; for example, data on current issues related to GSL are not included in the analyses in this study.

While GSL lies within five counties, due to river estuaries and wetlands in some areas and arid, desert conditions in others, people live near the lake primarily in Davis and Weber Counties. The study area for the survey included comparable areas within 1.5 miles of the lake in these two counties. Using Geographic Information System (GIS) data, professionals in Weber and Davis County Information Technology offices worked with their respective Tax Assessors' offices to construct a list of all residences within the study area, which served as the sampling frame. Households were identified by land parcel numbers and the corresponding addresses, and using systematic probability sampling procedures a sample of households was drawn from each county. To randomize selection within households, the specific respondent was identified as the adult (age 18 or over) permanent resident of that home who had the most recent birthday.

The survey was administered using a drop-off/pick-up method that has been found to yield relatively high response rates compared to other survey methods (e.g. Riley & Kiger, 2002; Steele et al., 2001). Questionnaires were dropped off in person. At least three attempts were made to contact residents at each household in the sample, at different times of the day and on different days of the week. When contact was made, the research worker gave the selected respondent a face-to-face explanation of the survey and returned to collect the completed questionnaire 24 to 72 hours later, by arrangement.

A total of 381 completed questionnaires were returned from the 511 households in the combined sample, yielding a response rate (proportion of completed surveys out of eligible households) of 83.7 percent; 86.5 percent in Weber County and 80.9 percent in Davis County. Respondents were quite compliant, as all but five delivered questionnaires had been picked up when the time in the field ended. A postage-paid

envelope was left at each of these five households and three of the questionnaires were mailed in.

Findings

The survey respondents represented a broad cross-section of population characteristics. They ranged from 18 to 93 years of age, with a median age of 47 years old. Over three-quarters of respondents were married, and close to 60 percent had children living at home. The median income response category was \$50,000 to \$74,000, and over 90 percent of respondents owned their homes. Nearly all had graduated from high school, and almost a third of them had at least a bachelor's degree. Fifty-four percent of respondents were female. These population characteristics of respondents closely resemble those in the communities making up the study area, other than education. The respondents were more likely to have college bachelor's degrees than were the residents of the study area more generally.

The focus of this study is on place meanings, sense of place, and place attachment. Individual questionnaire items providing nominal data were used to measure place meanings and sense of place. Place attachment was measured using ordinal data. Composite measures were constructed to measure exposure to and experience with the lake.

Place meanings

Meanings are evidence of people having a sense of place. To allow respondents to identify the meanings GSL held for them in their own words, the questionnaire included a series of open-ended questions presented early in the instrument to avoid response bias. Very similar response types emerged from two different questions. The first asked whether the lake and related areas held any particular meaning for respondents, and if so, what it was.² The second asked "What do you like most about living near the Great Salt Lake?"³ While the first question addresses place meanings directly, only 33 percent of the respondents answered it ($n = 125$). Since the question asking what respondents liked most yielded very similar responses, and was answered by 76 percent of respondents ($n = 291$), for the current study, the response categories that emerged from responses to this question are used as indicators of the meanings GSL holds for respondents (see Table 1). While the use of response categories loses much of the rich detail contained in the respondents' own words, it allows the quantitative analyses of relationships between these responses and other variables.

A strong modal category is comprised of responses about lake-related views and sunsets, e.g. "the beauty of Antelope Island and the lake itself," and "Picturesque feeling you get when looking at lake especially at sunset." Fifteen

Table 1. Frequencies: GSL Meanings (n = 291)

	Frequency	Percent	Valid Percent
Views and sunsets	79	20.7	27.1
Recreation activities	25	6.6	8.6
Birds and other wildlife related	43	11.3	14.8
Rural, undeveloped	55	14.4	18.9
Social, community aspects	21	5.5	7.2
GSL & uniqueness	24	6.3	8.2
Negatives or "nothing"	18	4.7	6.2
Lack of sense of place	26	6.8	8.9
No response	90	23.6	

percent of those answering liked the birds and other wildlife-related aspects of the lake most, with responses such as "I like watching the big birds coming and going during the seasons." Other responses were related to the rural area and to social and community aspects of living near the lake rather than to the lake and its environs. For example, the second largest response category was rural and undeveloped aspects of the lake, which included comments such as "There's a wide, open space to the west and no housing developments will go there." Other responses focused on social and community aspects, including, "The community and industry along the...lake shore," and "the community, friendship, family."

Interestingly, while the question asked what respondents liked most about living near the lake, six percent of those responding wrote negative responses such as, "nothing — it smells," "nothing in particular," or simply, "nothing."⁴ Another nine percent gave answers that appeared to indicate they did not have any particular sense of the lake, such as, "don't really pay any attention to it," "It doesn't matter, I don't see it," and "Have never thought about it." These two response categories gave evidence of a negative sense of place, and of a lack of sense of place among some of the 76 percent of respondents who answered this open-ended question.⁵

The response categories for this meanings measure represent the various senses of place respondents held about GSL; because they are nominal level data, the remaining analyses in this study rely on categorical analytical techniques. Data are crosstabulated, with chi-square tests and Cramer's V used to test for relationships and their strength.

Place attachment

For this study, place attachment was measured using a single item with demonstrated face validity, adapted from one used in prior research (Williams & Roggenbuck, 1989; see also Williams & Vaske, 2003). This item asked respondents to respond to the statement, "I am very attached to the Great

Table 2. Response Distribution: Place Attachment (Mean 2.93)

	n	Percent
"I am very attached to GSL"	(377)	
1-Strongly Disagree	34.5	
2		11.1
3		9.5
4-Neither agree nor disagree		28.4
5		8.0
6		4.8
7-Strongly agree		3.7

Salt Lake," on a seven point Likert-type response scale with options ranging from "strongly disagree" to "strongly agree." A univariate analysis reveals a bimodal distribution, with 34 percent of respondents strongly disagreeing with the sentiment and 28 percent choosing the neutral response. Only 16 percent of respondents agreed to any degree with the attachment item; the mean of 2.93 falls within the range of disagreeing responses (see Table 2).

Length and degree of exposure and experience

Direct experience and involvement with the place of focus have been predictors of both sense of place and place attachment in prior studies (e.g. Kyle et al., 2003; Williams et al., 1992; Williams & Vaske 2003). In order to identify relationships between experience and involvement variables and the sense of place/lack of sense of place, negative sense of place, and place attachment variables, these primarily nominal and ordinal data were crosstabulated. Experience and involvement variables included residential history (i.e. length of residence "within a mile or two" of the lake, whether respondents lived on multigenerational familial property, and whether respondents had lived near the lake when they were growing up); whether or not the respondent had ever visited the lake or lake sites;⁶ the frequency of visits to the lake or lake sites, and of participation in lake-related recreation (see Table 3 for response distribution).

Frequency of visits to GSL and participation in GSL-related recreation activities were measured using similar questions, which respondents were asked to skip if they had never visited the lake. One question asked respondents the frequency with which they had visited each of a series of 11 different GSL sites within the three years prior. Another question asked the frequency with which respondents had participated in each of a series of 10 GSL-related recreation activities within that same period of time. Composite measures were created for each question.⁷ Due to the wording of response categories on the questionnaire, the scores for these measures cannot represent the number of times the respondent visited or participated in recreation, but rather provide relative indi-

Table 3. Response Distribution: Length and Type of Exposure to GSL Variables

	n	Percent
Years lived near GSL	(361)	
Less than 10 years		36.8
10 to 19 years		19.4
20 years or more		43.8
Generational residence	(373)	
Multigenerational familial property		19.8
Single generation residence		80.2
Childhood residence	(364)	
Lived near GSL while growing up		27.7
Did not grow up near GSL		72.3
Ever visited GSL or related sites	(371)	
No		9.2
Yes		90.8
Frequency of GSL site visits	(338)	
Fewest GSL visits		30.8
More frequent GSL visits		34.6
Most frequent GSL visits		34.6
Frequency of GSL recreation	(339)	
Least frequent GSL recreation		37.8
More frequent GSL recreation		33.6
Most frequent GSL recreation		28.6

cators of the amount of involvement with GSL. These composite measures were then recoded into a smaller number of ordinal categories. “Frequency of GSL site visits” divides the distribution as evenly as possible into three categories: fewest GSL visits (30.8% of the responses), more frequent GSL visits (34.6%), and most frequent GSL visits (34.6%).⁸ “Frequency of GSL recreation” divides the distribution as evenly as possible into least frequent GSL recreation (37.8% of the responses), more frequent GSL recreation (33.2%), and most frequent GLS recreation (29.0%)⁹ (see response distribution, Table 3).

For the analyses of relationships between these ordinal level exposure and experience variables and sense of place, the nominal level place meanings measure was recoded into two separate dichotomous variables. The sense of place/lack of sense of place variable was created by separating those who had indicated a lack of sense of place from the rest of the meanings response categories. The other responses all reflect sense of place, since any meaning, including a negative one, is indicative of a sense of the place evoking that meaning. Negative sense of place was measured similarly, with responses recoded dichotomously into “negative” and “not negative” categories.¹⁰

The “negative sense of place” variable was used to capture one extreme sense of the lake. To provide a parallel to this negative extreme, the place attachment variable de-

scribed above was used to capture respondents’ stronger positive affect towards the lake. To make the variable comparable to “negative sense of place,” place attachment was recoded into a dichotomous variable of those who indicated place attachment (including the three “agree” response categories) and those who did not (responses ranging from “strongly disagree” through “neither agree nor disagree”).

Using dichotomous variables improves the ability to use crosstabulations, with fewer cells being too small for chi-square testing. The use of dichotomous variables in crosstabulations also allows for corrections when expected cell counts are too small for confidence in chi-square tests.¹¹ Because SPSS performs these corrections on contingency tables with four cells (2 x 2 tables), they can only be used when the other variables in the crosstabulations are also dichotomous. Due to the large number of variables involved in the bivariate analyses, only those where statistically significant relationships exist ($p < .05$) are presented here.

Sense of place

The vast majority of respondents were more likely to have a sense of place with GSL than to lack one. Exposure and experience distinguished between these respondents, although the strongest of the statistically significant relationships was still relatively weak (see Table 4). Since those lacking sense of place have not been considered in prior work, they are the focus here. While ten percent of single-generation property holders indicated they lacked a sense of place, this response was almost nonexistent for multigenerational property holders. There was a somewhat stronger inverse relationship between frequency of GSL visits and lack of sense of place, where those whose responses fell into the “fewest GSL visits” category were much more likely to lack sense of place than those in the other two visitation categories. Few in the “most frequent visits” category indicated they lacked sense of place. The GSL recreation variable behaved similarly to the visitation variable, although the relationship was somewhat weaker. Nearly 15 percent of those in the “least frequent” recreation category indicated they lacked sense of place, compared to 2 percent of those in the “most frequent” category. Of note, those with sense of place and those without did not differ significantly in length of residence, nor in whether or not they had ever visited the lake or related sites.

Negative sense of place

Statistically significant relationships can also be seen between the “negative sense of place” meaning variable and the exposure and experience variables (see Table 5).¹² Those who had never visited the lake were four times more likely to hold a negative sense of place than those who had visited, although this is a relatively weak relationship. Of those who had visit-

Table 4. Sense of Place/Lack of Sense of Place by Independent Variables (Percentages in Parentheses)

Independent Variable	Has Sense of Place	Lack of Sense of Place	Total	Sig.	Cramer's V
Property in the family for more than one generation	54 (98.2)	1 (1.8)	55 (100.0)	.042†	.120
This generation only	206 (89.6)	24 (10.4)	230 (100.0)		
Frequency of GSL site visits				.010	.189
Fewest GSL visits	52 (81.3)	12 (18.8)	64 (100.0)		
More frequent visits	91 (92.9)	7 (7.1)	98 (100.0)		
Most frequent visits	91 (94.8)	5 (5.2)	96 (100.0)		
Frequency of GSL-related recreation				.015	.181
Least frequent recreation	75 (85.2)	13 (14.8)	88 (100.0)		
More frequent recreation	81 (92.0)	7 (8.0)	88 (100.0)		
Most frequent recreation	81 (97.6)	2 (2.4)	83 (100.0)		

† 1 cell has expected count less than 5; Continuity Correction shows sig. of .078, Fisher's Exact Test sig. of .028

ed, respondents with “fewest visits” were more likely to exhibit a negative sense of the lake than those with “more frequent” or “most frequent” visits, although this relationship is also fairly weak. Frequency of GSL recreation has a moderate, inverse relationship with the “negative sense of place” variable, with respondents with “least frequent recreation” more likely to exhibit a negative sense of place than those with “more frequent recreation.” No respondents with “most frequent recreation” exhibited a negative sense of place.

Place attachment

The experience and involvement variables make a substantial difference in distinguishing between those with place attachment and those without (see Table 6). A positive rela-

tionship can be seen between the place attachment variable and length of residence. Over twice as many respondents who had lived near GSL 20 years or more indicated place attachment than respondents who lived there less than 10 years. Multi-generational property holders were ten percent more likely to indicate place attachment than single generation property holders. Those who grew up near the lake were nearly ten percent more likely to report place attachment than those who did not. There is also a positive statistically significant relationship between the place attachment variable and those who had visited GSL as compared to those who had never visited. Of the latter, only one respondent indicated place attachment. However, each of the relationships just described is relatively weak.

Table 5. Negative Sense of Place by Independent Variables (Percentages in Parentheses)

Independent Variable	Negative Sense of Place	Not a Negative Sense of Place	Total	Sig.	Cramer's V
Have visited GSL or related sites	14 (5.3)	250 (94.7)	264 (100.0)	.007†	.162
Never visited GSL or sites	4 (21.1)	15 (78.9)	19 (100.0)		
Frequency of GSL site visits				.036††	.161
Fewest GSL visits	9 (14.1)	55 (85.9)	64 (100.0)		
More frequent visits	5 (5.1)	93 (94.9)	98 (100.0)		
Most frequent visits	4 (4.2)	92 (95.8)	96 (100.0)		
Frequency of GSL-related recreation				.001	.235
Least frequent recreation	12 (13.6)	76 (86.4)	88 (100.0)		
More frequent recreation	4 (4.5)	84 (95.5)	88 (100.0)		
Most frequent recreation	0 (0.0)	83 (100.0)	83 (100.0)		

† 1 cell has expected count less than 5; Continuity Correction shows sig. .026, Fisher's Exact Test sig. .024

†† 1 cell has expected count less than 5, minimum expected count is 4.47; no sig. listed for Continuity Correction or Fisher's Exact Test since it is not a 2x2 table

Table 6. Place Attachment by Independent Variables (Percentages in Parentheses)

Independent Variable	Place Attachment	No Place Attachment	Total	Sig.	Cramer's V
Length of residence near GSL				.004	.175
Less than 10 years	13 (9.8)	120 (90.2)	133 (100.0)		
10 to 19 years	8 (11.4)	62 (88.6)	70 (100.0)		
20 years or more	36 (23.2)	119 (76.8)	155 (100.0)		
Property in the family for more than one generation	18 (24.7)	5 (75.3)	73 (100.0)	.042	.105
This generation only	44 (14.8)	254 (85.2)	298 (100.0)		
Lived near GSL while growing up	23 (23.0)	77 (77.0)	100 (100.0)	.033	.112
Did not live near GSL	36 (13.7)	226 (86.3)	262 (100.0)		
Have visited GSL/related sites	58 (17.3)	277 (82.7)	335 (100.0)	.033	.111
Never visited GSL or sites	1 (3.0)	32 (97.0)	33 (100.0)		
Frequency of GSL site visits				<.001	.225
Fewest GSL visits	5 (4.9)	98 (95.1)	103 (100.0)		
More frequent visits	18 (15.5)	98 (84.5)	116 (100.0)		
Most frequent visits	29 (25.0)	87 (75.0)	116 (100.0)		
Frequency of GSL-related recreation				<.001	.280
Least frequent recreation	9 (7.1)	118 (92.9)	127 (100.0)		
More frequent recreation	16 (14.2)	97 (85.8)	113 (100.0)		
Most frequent recreation	31 (32.6)	64 (67.4)	95 (100.0)		

There are moderate strength, positive relationships between the attachment variable and frequency of GSL visitation, and frequency of GSL-related recreation. Those who had visited GSL most were five times more likely to indicate place attachment than those with the fewest visits. Those who engaged in GSL-related recreation most often were more than four times more likely to report place attachment than those who engaged least often, and this is the strongest association (as measured by Cramer's V) seen among any of the variables tested.

Discussion and conclusions

While there is a large and broad literature on the relationship dynamics between people and places, including place meanings, sense of place and place attachment, these theoretical and empirical works have focused almost exclusively on people's relationships with high amenity places, that is, places known for their recreation opportunities and aesthetic value. Although there have been consistent calls for measures capturing the full range of experiences and feelings related to place (e.g. Giuliani & Feldman, 1993; Kyle et al., 2004; Relph, 1976), studies of these higher amenity places have seemingly had little negative to report on. Examining place dynamics in a mixed amenity setting such as GSL can provide additional understanding of how these processes work. While the findings of the present study reveal some similarities, they also demonstrate considerable differences

between this mixed amenity place and what has been reported about higher amenity places.

For both kinds of places, involvement and experience with the place appear to play a key role in the development of positive relationships. The relationship between connections to places and the level of exposure to and experience with those places seen in prior empirical work (e.g. Kyle et al., 2003; Williams et al., 1992; Williams & Vaske, 2003) was reinforced in this study. These variables were important to both sense of place and place attachment. Those with primarily negative feelings about GSL tended to be those with the least experience with the lake.

On the other hand, as a mixed amenity place, feelings towards GSL are more nuanced than the degree of affect typically expressed towards, for example, resort lakes. In this study, at least three differences were found. First, while some local residents demonstrated place attachment to GSL, they were a small minority — far fewer than the majorities seen in studies of high amenity places. For example, in studying place dynamics related to lakes in Vilas County, Wisconsin, Jorgensen and Stedman (2001) found that overall, strong, positive feelings prevailed, as evidenced by relatively high means for each of their place attachment measures. While Warzecha et al. (2000) found somewhat lower means in their study of national park sites, a majority of respondents agreed with the attachment items. By contrast, only 16 percent of respondents in the present study agreed with the place attachment item.¹³ This supports the argument that some places are

easier to become attached to than others (Taylor et al., 1985).

Second, in the current study there is a small but not inconsequential segment of research participants for whom the lake holds negative meanings, some stating they could think of nothing positive about the place. This illustrates the need to consider the full range of feelings related to places (e.g. Giuliani & Feldman, 1993; Kyle et al., 2004). This dynamic has not been reported in work focusing on high amenity places.¹⁴

Third, even among residents who live as close to this immense lake as one can live, there was a small but substantial group of research participants who appeared to have no sense of the lake, for whom GSL simply did not matter. As noted, length of residence did not make a significant difference regarding this dynamic.

These differences are in addition to the presence of social stigma seen in prior work on GSL (Trentelman, 2009b). Furthermore, the earlier work also found that, for a substantial number of research participants, the lake held multiple meanings, including many combinations that appeared incongruous in their mixing of positive and negative images of the lake (Trentelman, 2009b). It does not seem surprising that GSL would hold some negative meanings even for people who felt the most positive about it, and that some who saw the lake negatively might also be aware of some positive aspects. However neither these mixed meanings nor the presence of social stigma have been discussed in studies of place dynamics focusing on high amenity places.

Indeed, some of the relationships noted in this section may well exist in higher amenity places, but they have not been reported in the empirical work on place dynamics. Part of the value of examining mixed amenity places is that, since they have not received much scholarly attention as of yet, they take us out of the realm of what we academics may have been taking for granted when we look at place. For example, when place scholars focus nearly exclusively on positive affect towards places, they may be missing not only negative affect, but far more nuanced and mixed responses to places; varied, and at times perhaps unpleasant, as Relph put it (1976). Some of the nuances described here may be true of most places, but this has not been examined empirically.

In sum, allowing respondents to express the meanings GSL held for them provided a fairly nuanced picture. While some in this study raised negative aspects of living near the lake, others looked past these seemingly negative traits. Many residents had some degree of positive feelings about the lake, and for some, GSL evoked delighted, lyrical descriptions of aspects of the lake. Others did not seem to have any real sense of the lake. This mix of responses, including the wide diversity in how strong or weak the feelings appear to be, is the essence of the phrase “mixed amenity place.” In

this mixed amenity place, the strong, positive affect measured by place attachment was reported by a much smaller proportion of respondents than has been seen in studies of higher amenity settings.

Awareness of how local residents think and feel about a mixed amenity place can assist in resource management efforts. For example, information on the cognitive evaluations of a place expressed in the place meanings and sense of place local residents hold may give insight to possible responses to policy decisions, the efficacy of educational efforts, and how to best capitalize on positive feelings and thoughts while countering negative associations with the place. Understanding the place attachment present can help managers discern the degree of support that may exist for management objectives and actions (e.g. Kaltenborn & Williams, 2002; Warcheza et al., 2000). Being cognizant of these dynamics can be particularly useful given the potential for tension and conflict over perceptions of mixed amenity places.

The intention of this exploratory study was to provide the beginnings of a dialogue about ways place dynamics differ in mixed amenity places as compared to high amenity places. Taken as a whole these examples demonstrate some interesting differences, giving place scholars some direction for future work exploring dynamics between people and all types of places.

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Endnotes

- 1 carlatrentelman@weber.edu
- 2 “Does the Great Salt Lake, its islands, bays or shorelands (including refuges and preserves), hold any particular meaning for you?” The question has a yes or no response. Those who responded affirmatively were then asked the open-ended question, “What does the Great Salt Lake mean to you?”
- 3 This was paired with “What do you like least about living near the Great Salt Lake?” There was little variability among the 83 percent responding to this question (n = 317): 85 percent of responses were related to smell, bugs, or a combination of the two.
- 4 Some of these respondents put “N/A” or “nothing” for both the “like most” and “like least” questions; identical answers along these lines for both questions were coded “no response.”
- 5 Response categories from the 33% of respondents who answered the question, “What does GSL mean to you?” (n = 125) included the following: Birds and wildlife/habitat; Recreation/hunting; Unique aspects; Memories; Historical/heritage; Beauty, views & sunsets; Misc.

While these response categories are not identical to those for the “like most” question, they are quite similar. Additionally, the emergence of the category of lack of sense of place would not have occurred from the meaning question, since it was preceded by a contingency question.

- 6 While 8.9% of respondents indicated they had never visited GSL or its related sites (including related wetlands, wildlife refuges and islands), it should be acknowledged that this is only 34 respondents. Despite this small size, this variable has been left in the analyses because of the significance of there being residents who live within two miles of this vast lake who have never visited the lake. This variable was made even more interesting when cross tabulations with length of residence revealed that, of those who had never visited GSL, 39% had lived near the lake for at least 10 years while 27% had lived there for 20 years or longer.
- 7 For each item in these two series, response options included “not in the last 3 years”, “1-3 times during the past 3 years”, “4-9 times during the past 3 years”, or “10 or more times during the past 3 years.” The responses for each site or recreation activity were coded: 0=No visits/recreation reported; 1=visited/recreated, but not in past 3 years; 2=visited/recreated 1-3 times in past 3 years; 3=visited/recreated 4-9 times in past 3 years; 4=visited/recreated 10 or more times in past 3 years. A composite visitation variable was created that includes the additive composite score for all of the sites visited by each respondent, ranging from zero to 44 on an ordinal scale (the observed range is 0-39, or more accurately, 0-26 with one outlier at 39). A composite recreation variable was created in the same way, ranging from zero to 40 (the observed range is 0-32). These additive scores are not indicative of the number of times visited or participated in recreation, rather they indicate relative degrees of frequency. For example, a score of four on visitation could mean the respondent visited one site ten times or more in the past three years, or visited four sites one time each more than three years ago.
- 8 Fewest GSL visits includes scores of 0 to 3, more frequent GSL visits includes scores of 4 to 8, and most frequent GSL visits includes scores of 9 to 44.
- 9 Least frequent GSL recreation includes scores of 0 to 2, more frequent GSL recreation includes scores of 3 to 8, and most frequent GLS recreation includes scores of 9 to 40.
- 10 It should be noted that with 7% of respondents’ responses indicative of a lack of sense of place, and 5%, a negative sense of place, the numbers of cases in these categories are quite small at 26 and 18 respectively. While this presents limits in terms of statistical inferences that can be drawn and necessitates caution in interpretation of observed relationships, the very presence of these responses is noteworthy in this early exploration of the dynamics of mixed amenity places.
- 11 Two such corrections are the Yates correction, which uses a variation on the chi-square formula that reduces the possibility for a single cell to have an exaggerated effect on the chi-square value. This correction is typically quite conservative. Fisher’s exact test is a test of independence that uses exact probability calculations. It is primarily used for small sample tests where chi-square is not accurate (Agresti & Franklin 2009; Kendrick 2000).
- 12 The crosstabulation results for the visitation variable need to be in-

terpreted cautiously, since one cell has an expected count of less than 5. Because this is not a 2 x 2 table, neither the Continuity Correction or Fisher’s Exact Test can be applied to correct for this when calculating the probability for the Chi Square statistic. However, since the expected value for this one cell is just slightly below 5 (4.47), the violation of assumptions is sufficiently small that any biasing effect on the calculated probability level is minor. In addition, the presence of a noteworthy association as measured by the Cramer’s V statistic provides further evidence that this relationship is significant in both a statistical and substantive sense.

- 13 The means in Jorgensen and Stedman’s (2001) study ranged from 3.99 to 4.64 on four attachment measures. Each had a five point Likert-like response range, with the disagreement responses at the low end. Using a similarly arranged five point range, Warzecha et al. (2000) used six measures for “emotional/symbolic place attachment” (including the measure used in the present study). The grand means for this cluster ranged from 3.54 to 3.98 in the three locations they studied. The mean for the full seven point range for the measure in the present study was 2.93. That is, the mean for the seven point measure in the present study was substantially lower than the means of five point measures found in either of the other studies.
- 14 Williams and Roggenbuck (1989) found evidence of an “indifference dimension” to place attachment that emerged in a factor analysis for a study they conducted to investigate the inter-item correlation structure of the dimensions of place attachment. The items in this factor or dimension were all negative assessments of the settings being explored, however survey respondents were referring to places of their own choosing rather than one particular place. No information is provided as to the places being referred to, so it cannot be ascertained whether they are high amenity places.

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