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This issue of JIR includes two research articles and two “In Short” articles, each providing insight and perspective on the continually evolving discipline of interpretation. This issue starts with an examination of place attachment and involvement on satisfaction levels of volunteer interpreters in Taiwan. The next research article compares two different interpretive approaches, a nonpersonal flyer and an interpersonal audio talk, on visitor attitudes and knowledge.

The two “In Short” articles address disciplinary approaches and alternative lens through which to view research and suggest the need to be more inclusive rather than narrow in our acceptance of what constitutes “research.” Although the debate of qualitative versus quantitative research is certainly not new, the first article in this section provides a fresh look at this traditional discussion. The second article introduces a perspective on leadership and innovation in interpretive management and programming.

Taken together, this issue of JIR is sure to provide great fodder for conversation and discussion. Remember to ask tough questions, imagine the impossible and think beyond that which is now.

I look forward to the future developments of our field through your quality submissions to JIR.

—C
RESEARCH
Influence of Activity Involvement and Place Attachment on Volunteer Interpreters’ Satisfaction in Taiwan

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Abstract
The purpose of this research was to establish a conceptual model of volunteer interpreters’ satisfaction in Taiwan. The objectives were: (1) to understand Taiwanese volunteer interpreters’ activity involvement, place attachment, and personal satisfaction and (2) to propose a hypothetical structural model representing the association between activity involvement, place attachment, and interpreters’ satisfaction. A total of 378 surveys were collected from volunteer interpreters at six Taiwan national parks and the Taipei Zoo. Based on the findings, research targets’ activity involvement was high and place attachment was moderate. Their satisfaction, however, was high. Furthermore, the results showed that the volunteer interpreters’ activity involvement and place attachment
positively and significantly influenced satisfaction; their activity involvement also positively influenced place attachment.

Based on the results, researchers proposed suggestions for agency managers who use volunteers, among them promoting interpreters’ activity involvement and place attachment in order to enhance volunteer satisfaction.

Keywords
activity involvement, place attachment, satisfaction, volunteer interpreter, serious leisure

Introduction
With rapid economic growth over the past half century, Taiwan has experienced increased average income, reduced work hours, and the implementation of the two-day weekend. Accordingly, leisure has become increasingly valued by the general population, and the tourism and recreation industry has shown much growth. Ways to attract tourists, encourage them to revisit, and satisfy their recreational needs have become important tasks of recreation service managers. In order to provide visitors with a better recreational experience, many recreational settings (e.g., national parks, zoos, botanical gardens, museums, aquariums) provide interpreters to enhance both the recreational and educational experience of visitors to natural and cultural sites. However, in Taiwan, as in other countries, government resource agencies are facing continual downsizing of interpretive services, so the use of volunteer interpreters is becoming increasingly common (Wu, 2002). This use of volunteers creates unique human resource management issues for interpretive services, as the management of volunteers is different from managing paid employees. Unless both volunteers and administrators are satisfied, a long-term enduring relationship is unlikely (Jago & Deery, 2001).

Most studies on job satisfaction involve factors such as personal traits, employees’ attributes, self-efficacy, motivation to participate, locus of control, role efficacy, job performance, compensation, organizational commitment, organizational atmosphere, and styles of leadership (Cohrs, Abele, & Dette, 2006; Okpara, 2006; Randolph, 2005; Fang, 2002; Chen & Ting, 2002; Lo & Tang, 2003). These factors usually are used to measure the satisfaction of paid employees, and an interesting question presents itself when the staff members are volunteers. Does it make sense to use the same criteria to measure the job satisfaction of volunteer staff as paid employees? Obviously a factor such as monetary compensation becomes less important, and it is reasonable to ask even whether to think of volunteerism as a job or a recreational activity. Stebbins (2001), for example, would identify it as recreation, categorizing volunteers as one of the three types of participants who actively pursue what he calls serious leisure (the other two types are amateurs and hobbyists). Serious leisure is recreation activity that is both educational and intrinsically fulfilling, and it is pursued by recreationists who are looking for an experience much deeper than mere entertainment or diversion. Stebbins defined volunteers as recreationists who choose to spend their leisure time in unpaid work in order to benefit themselves and others (Galindo-Kuhn & Guzley, 2001). Still, volunteer satisfaction often is measured as if volunteers are employees, not people participating in leisure. Would it make sense to look at volunteers as unique guests to a park or attraction, not employees? For example, contemporary tourism research often looks at activity involvement and place attachment to assess the satisfaction of tourists (Hwang, Lee, & Chen, 2005; Lee, 2003; Zabriskie & McCormick, 2003). It might make sense to
treat volunteers as “serious” visitors and utilize this kind of the tourism research to measure volunteer satisfaction as well.

Volunteer interpreters play the key role of communicator at many recreation and leisure venues; however, the turnover rate of volunteer interpreters is quite high. This makes it important to discuss volunteer interpreters’ satisfaction and determine how to manage volunteers effectively to keep them on the “job.” In short, this research is (1) to better understand volunteer interpreters’ activity involvement, place attachment, and personal satisfaction in Taiwan and (2) to construct and validate a structural model representing the association that exists among these three important factors.

**Literature Review**

**Volunteers and Serious Leisure**

Attracting and keeping good volunteers is a fundamental part of contemporary interpretation. With stagnant, even shrinking, interpretation budgets and a growing demand for interpretive services, outdoor recreation sites such as national parks and zoological gardens rely more and more upon volunteers to achieve their interpretive goals.

Volunteers, however, are a unique subcategory of an agency’s personnel. Administrators want to acknowledge their contributions and therefore treat them as staff, yet it is obvious that their commitment and their motivations differ from paid employees. Stebbins (2001) suggested that they really are not staff at all, for their efforts should not be considered work, but leisure. He coined the term “serious leisure” to distinguish it from casual leisure. He argued that serious leisure is the steady pursuit of an amateur, hobbyist, or career volunteer that captivates its participants with its complexity and many challenges. Furthermore, Stebbins defined serious leisure by identifying six qualities:

(1) the occasional need to persevere, with participants needing challenges from time to time if they are to continue experiencing the same level of satisfaction;

(2) the desire to follow a leisure career with its own special contingencies, turning points, and stages of achievement;

(3) significant personal effort, based on specially acquired knowledge and skill;

(4) the durable benefits of self-actualization, self-enrichment, self-expression, personal renewal, feelings of accomplishment, enhancement of self-image, social interaction, a sense of belonging, and lasting physical products of the activity;

(5) a unique and shared ethos that develops when enthusiasts share common interests over time; and

(6) an identity with the activity seriously engaged in (Stebbins & Graham, 2004).

Volunteers often engage in a service unremittingly and treat it as a long-term career. They also receive related training in order to meet the requirements of the role and to improve themselves. With constant learning, acknowledgement of their contributions, and mutually beneficial feedback, they develop a unique sense of self-worth and identification with a particularly site or organization. For example, Orr (2006) suggested that museum administrators should rethink the management of volunteers and to
Encourage volunteers’ life-long involvement through the concept of serious leisure instead of treating volunteers as a money-saving tool.

The perspective of volunteerism as serious leisure has become a noteworthy element in recent leisure research. Yen, Hsueh, and Huang (2006), for example, viewed the service character of volunteer interpreters from a serious leisure perspective. Wong, Lin, and Wu (2006) explored the motivation, commitment, and outcome of volunteers using the concept of serious leisure, and Orr (2006) drew on the concept of serious leisure as a way of defining museum volunteering as a leisure practice. Misener, Doherty, and Hamm-Kerwin (2010) stated that volunteering was a way for seniors to achieve recreation and suggested that relevant organizations should encourage seniors to engage in meaningful leisure activities in order to enhance satisfaction with their lives. Nichols (1999) believed that the theory of serious leisure helped to explain the characteristics of volunteers, the social contributions of volunteerism, and the ways to recruit more volunteers.

Volunteer Satisfaction
Volunteers help to address the problems of a lack of paid staff in government and nonprofit agencies, but reliance on volunteers also leads to unique difficulties. For example, organizations cannot always attract an appropriate number of volunteers, certainly not those with sufficient knowledge and training (McCurley & Lynch, 2007). Also agencies have trouble keeping effective volunteers because management fails to manage the volunteers well, and dissatisfied volunteers no longer see volunteering as time well spent (United Parcel Service Foundation, 1998). The main reasons for dissatisfaction among volunteers are unrealized high expectations, lack of advancement, feelings that an agency is not well organized, trivial duties, and overall discontent with the work (National Volunteer and Philanthropy Centre, 2002; Lin, 2005). Over the past two decades, managers of government agencies and non-profit organizations have become more adept at supervising volunteers; still, it remains a task to satisfy volunteers and have them make a long-term commitment.

Nevertheless, the motives of volunteers are not the same as employees. Galindo-Kuhn and Guzley (2001) identified three distinctions: (1) volunteers have a stronger sense of self-consciousness than employees and will make a commitment beyond any economic or social necessities; (2) volunteers have a definite orientation, especially in regards to social responsibility; and (3) volunteers attach a stronger sense of reward value to certain benefits, friendship being a significant example.

Galindo-Kuhn and Guzley (2001) also suggested four dimensions for enhancing volunteer satisfaction, calling them organizational support, participation efficacy, empowerment, and group integration. Organizational support means that the organization helps volunteers when needed, acknowledges their contributions, and gives regular performance feedback. Participation efficacy refers to volunteers feeling able to achieve their work effectively. Empowerment is the ability of volunteers to fulfill their duties as they continually enhance their knowledge base and skills. Finally, group integration represents the extent that volunteers develop social relationships with other volunteers and paid staff.

Wu (2002) investigated volunteers working in national parks in Taiwan and identified six constructs of job satisfaction. They were self-growth, social need, knowledge and skill, job characteristics, organizational atmosphere, and overall satisfaction. Wu’s study explored the socio-demographic characteristics of volunteers
and measured the motivation and satisfaction of volunteer interpreters at Yushan National Park. Results showed that socio-demographic characteristics were associated with motivation and that there was a correlation between motivation and satisfaction.

**Activity Involvement, Place Attachment, and Satisfaction**

Activity involvement can be defined as unobservable motivation or interest toward a recreation activity (Kyle, Graefe, Manning, & Bacon, 2003). McIntyre and Pigram (1992) suggested that activity involvement consists of three elements: attraction, self-expression, and centrality. Attraction is pleasure related to the activity, self-expression is the image participants want to present of themselves through participation in an activity, and centrality is the value of an activity as it relates to other aspects of a participant’s life (McIntyre & Pigram, 1992; Havitz & Dimanche, 1999).

Place attachment is the sense of purpose and the sense of belonging that people associate with a specific place. It is the relationship people have with an environment, including the extent that a place helps give meaning to people’s lives (Bricker & Kerstetter, 2000). In the leisure literature, this construct has been divided into at least two dimensions, place dependence and place identity. Place dependence is the extent that a particular resource is necessary and appropriate for specific recreational pursuits (Williams, Patterson, Roggenbuck, & Watson, 1992). Moore and Graefe (1994) described place dependence as “how well a setting facilitates desired leisure experience.” Place identity is more complicated and is the combination of attitudes, thoughts, values, meanings, and behavior intention that an individual associates with a place (Proshansky, Fabian, & Kaminoff, 1983). Moore and Graefe (1994) weighed in on this concept and suggested that place identity develops over a longer period of time than place dependence, in part because it is linked to the affective and symbolic meanings a person associates with a place. Goldman, Chen, & Larsen (2001) as well as Morgan (2009) studied place attachment in terms of interpretive services, and Stewart and Kirby (1998) observed that place attachment was a factor in people’s steadfast commitment to protecting specific natural areas. A number of studies have looked at the relationships of activity involvement and place attachment to visitor satisfaction. As noted earlier in this article, Hwang, Lee, and Chen (2005) showed that both activity involvement and place attachment have significant effects on visitor satisfaction with interpretative services. Other studies have shown that both activity involvement and place attachment are positively correlated with past experience (McIntyre & Pigram, 1992; Moore & Graefe, 1994). Still other research has found that activity involvement has a positive effect on place attachment (Kyle, Graefe, Manning, & Bacon, 2003; Hou, Lin, & Morais, 2005; Kyle & Mowen, 2005). A study by Hou, Lin, and Morais (2005) indicated that enduring activity involvement has a direct effect on attachment to a cultural tourism destination, and Kyle and Mowen (2005) showed that activity involvement partially influences place attachment (both place dependence and place identity).

Lee (2003) investigated the relationships among service quality, satisfaction, activity involvement, and place attachment in predicting destination loyalty. The results showed that activity involvement positively influenced satisfaction.

Finally Pan, Wu, and Chou (2008) specifically looked at the impacts of activity involvement and place attachment on the satisfaction of volunteer interpreters at Taiwan’s National Museum of Natural Science. They concluded that both have positive influences on satisfaction and observed that the higher the involvement or place
attachment, the higher the satisfaction.

Research Methods
The above literature review strongly suggests that activity involvement and place attachment are useful in understanding visitor satisfaction. This study treated volunteer interpreters as visitors (albeit unique visitors) and applied the methods of activity involvement/place attachment research to assess the satisfaction of these unique visitors. Specifics as to methodology are described as follows:

Population and Sampling
The subjects of the questionnaire survey were currently active volunteer interpreters at all six of Taiwan’s national parks (Yushan, Sheipa, Yangmingshan, Taroko, Kenting, and Kinmen) and the Taipei Zoo. The parks were chosen because they (1) represent the best examples of natural and historical resources in Taiwan and (2) are geographically dispersed across all areas of the country (Yangmingshan represents an urban park to the north, Taroko the coastal area to the east, Yushan and Sheipa the central mountain range, Kenting the southern tropical coast, and Kinmen an outlying island area outside the main island of Taiwan). The Taipei Zoo was included because of its history of using volunteer interpreters and its popularity with visitors. As Taiwan’s largest zoo, with more than 3,000 animals and over 450 different species, it is a major tourist attraction in the Taipei area (Taipei Zoo, 2012).

Surveys were conducted between March 20, 2006, and April 17, 2006. The data-collection process consisted of an initial mailing and three follow-up email reminders. In total, 625 questionnaires were sent. Respondents include all volunteer interpreters working at the six national parks and the Taipei Zoo. A total of 378 valid questionnaires were collected, including 92 from Yushan National Park, 26 from Sheipa National Park, 66 from Yangmingshan National Park, 36 from Taroko National Park, 36 from Kenting National Park, eight from Kinmen National Park, and other 114 from the Taipei Zoo.

Research Framework
Utilizing volunteer interpreters in the national parks and the Taipei Zoo as the sample, this study was intended (1) to clarify relationships between activity involvement, place attachment, and satisfaction of volunteer interpreters and (2) to aid in construction and verification of a model that would describe the relationship between volunteer interpreters’ activity involvement and place attachment to the volunteers’ satisfaction.

The hypothetic (pre-survey) model for this study, based on the literature review, is shown in Figure 1. The subcategories of activity involvement were taken from Kyle, Graefe, Manning, and Bacon (2003, 2004). The subcategories of place attachment came from Kyle, Bricker, Graefe, and Wickham (2004) and Moore and Graefe (1994) and included the two dimensions of place dependence and place identity. The subcategories of volunteer satisfaction were derived from Wu’s (2002) satisfaction scale.

Research Tools
The survey instrument was modeled after a construct of satisfaction instrument developed by Wu (2002). His study included the six dimensions of self-growth, social need, knowledge and skill, job characteristics, organizational atmosphere, and overall satisfaction. This study utilized the first five dimensions, but did not include overall satisfaction.
The survey consisted of 53 statements on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Sixteen statements were about activity involvement (e.g., “Being a volunteer interpreter is one of the most enjoyable things I do”), 12 were about place attachment (e.g., “I would prefer to spend more time on __________ National Park if I could”), and 25 were about satisfaction (e.g., “It makes me more confident to be a volunteer interpreter”). The initial statements were reviewed by 13 scholars in the fields of recreation and leisure, environmental education, psychology, and museum management. The survey then was pre-tested with 92 volunteers at the National Taiwan Museum of Fine Arts. The 16 statements on activity involvement had a Cronbach’s alpha coefficient of 0.91, the 12 statements on place attachment had a Cronbach’s alpha coefficient of 0.93, and the 25 statements on satisfaction had a Cronbach’s alpha coefficient of 0.95. Also the nine subconstruct reliability was between 0.77 and 0.91. Generally, Cronbach’s alpha coefficients of 0.70 and higher are considered acceptable score (Nunnally, 1978).

Figure 1: A Hypothetical Model
Results and Discussion

Descriptive Analysis
A profile of the volunteer interpreters is presented in Table 1. The gender of the sample was fairly equally divided (Male= 48.7%; Female= 51.3%). Approximately 26% of the respondents were in the age range of 50 to 59. Most (56.2%) were married and had children. Around 29% of the respondents had worked as volunteers for five to ten years. Over 70% of the respondents had at least a bachelor’s degree, and approximately half of the respondents had experiences working as volunteers with other organizations.

Relationship Among Activity Involvement, Place Attachment and Satisfaction
Table 2 displays the means and standard deviations of volunteer interpreters’ activity...
The key to this study, however, was not the mean scores of activity involvement, place attachment, and satisfaction, but the correlation between these various constructs. Most noteworthy of the correlations was the positive and direct influence that activity involvement had on satisfaction (correlation of 0.73, see Table 3). There also was an

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Table 2: Means of Activity Involvement, Place attachment and Satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
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<tr>
<td><strong>Activity Involvement</strong></td>
<td>4.00</td>
<td>0.481</td>
</tr>
<tr>
<td>Attraction</td>
<td>4.42</td>
<td>0.494</td>
</tr>
<tr>
<td>Self Expression</td>
<td>3.83</td>
<td>0.570</td>
</tr>
<tr>
<td>Centrality</td>
<td>3.50</td>
<td>0.649</td>
</tr>
<tr>
<td><strong>Place Attachment</strong></td>
<td>3.78</td>
<td>0.663</td>
</tr>
<tr>
<td>Place Dependence</td>
<td>3.96</td>
<td>0.720</td>
</tr>
<tr>
<td>Place Identity</td>
<td>3.71</td>
<td>0.691</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>4.16</td>
<td>0.487</td>
</tr>
<tr>
<td>Knowledge &amp; Skill</td>
<td>4.30</td>
<td>0.553</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>4.28</td>
<td>0.523</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>4.18</td>
<td>0.545</td>
</tr>
<tr>
<td>Self-Growth</td>
<td>4.13</td>
<td>0.568</td>
</tr>
<tr>
<td>Organizational Atmosphere</td>
<td>3.93</td>
<td>0.753</td>
</tr>
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Table 3: Direct, Indirect and Total Effects of Structural Model

<table>
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<th>Paths</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Involvement $\rightarrow$ Satisfaction</td>
<td>0.73</td>
<td>0.13</td>
<td>0.73</td>
</tr>
<tr>
<td>Activity Involvement $\rightarrow$ Place Attachment $\rightarrow$ Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place Attachment $\rightarrow$ Satisfaction</td>
<td>0.18</td>
<td></td>
<td>0.18</td>
</tr>
<tr>
<td>Activity Involvement $\rightarrow$ Place Attachment</td>
<td>0.73</td>
<td></td>
<td>0.73</td>
</tr>
</tbody>
</table>

Influence of Activity Involvement and Place Attachment

involvement, place attachment, and satisfaction. The average of all the activity involvement items was 4.00, meaning that volunteer interpreters had a relatively high level of involvement in volunteer activities (4.00 on a five-point scale). Among the three dimensions of activity involvement, attraction was ranked the highest (M=4.42), and centrality (M=3.50) was the lowest.

The mean score for place attachment was 3.78, indicating that the respondents had modest emotional bonding to the site they served in. Looking at the two constructs that make up place attachment, place dependence had a mean of 3.96 and place identity had a mean of 3.71.

Volunteer interpreters showed a high level of satisfaction in their volunteer work (M= 4.16). Among the five constructs of satisfaction, the mean score of knowledge & skill was the highest at 4.30, job characteristics was the second highest mean at 4.28, and the lowest was satisfaction with organizational atmosphere at 3.93.

The results of the survey were used to evaluate the hypothetical model linking the three constructs of activity involvement, place attachment, and satisfaction (Figure 1). Using structural equation modeling (LISREL 8.52), the results suggested minor revisions were needed.

The statistical analysis in LISREL showed that organizational atmosphere and place attachment share similar influencing factors (a modification index number of 62.18). In going back to look at these two factors, it was noted organizational atmosphere was defined as the level of volunteers' satisfaction to their working environment, the ways of management, and a sense of belonging. Sense of belonging also is a part of the definition of place attachment, which includes physical functional needs, emotional identity, and a sense of belonging. The adjusted good fit index (AGFI) was .85, whereas a number equal to or greater than .9 is acceptable (Hu & Bentler, 1995). Also the root mean square error of approximation (RMSEA) was .11, and a number equal to or greater than .08 (Steiger, 1989). Finally Hoelter's critical number (CN) was 111.2, and a number equal to or greater than 200 suggests an acceptable fit (Hoelter, 1983).

The results are presented as Table 4. As noted in this table, the analysis of the hypothetical model resulted in a number of unacceptable values. The adjusted good fit index (AGFI) was .85, whereas a number equal to or greater than .9 is acceptable (Hu & Bentler, 1995). Also the root mean square error of approximation (RMSEA) was .11, and a number equal to or greater than .08 (Steiger, 1989). Finally Hoelter's critical number (CN) was 111.2, and a number equal to or greater than 200 suggests an acceptable fit (Hoelter, 1983).
indirect effect of activity involvement on satisfaction of 0.13. Therefore, the total effect of activity involvement on satisfaction was 0.86 (0.73 x 0.18 = 0.13, 0.73 + 0.13 = 0.86). This is an important indicator, certainly suggesting that activity involvement is a major factor in determining satisfaction. This result was consistent with previous studies (Hwang et al., 2005; Laverie & Arnett, 2000; Lee, 2003; Zabriskie & McCormick, 2003; Pan et al., 2008; Poff, Zabriskie, & Townsend, 2010).

The positive and direct effect of place attachment on satisfaction was 0.18, indicating that although place attachment had a positive effect on satisfaction, it was not as strong as activity involvement. This finding too was similar to previous studies (Hwang et al., 2005; Pan et al., 2008). In short, activity involvement and place attachment both influence satisfaction, and the former is more influential than the latter.

Activity involvement also had positive influence on place attachment (value=0.73). This result is consistent with previous leisure studies (Hou et al., 2005; Kyle et al., 2003; Kyle, Bricker, et al., 2004; Kyle, Graefe, et al., 2004; Kyle & Mowen, 2005; Lee, 2003; Pan et al., 2008). Findings in this study indicated that activity involvement is a pre-factor that has impacts on place attachment. However, certain studies also indicate that place attachment influences activity involvement (Hwang et al., 2005) or that the two factors influence each other (Safvenbom & Samdahl, 1998; Virden & Schreyer, 1988).

Based on the above findings, it is clear that volunteer interpreters’ activity involvement had significantly positive influences on place attachment and satisfaction, and place attachment also had significantly positive impacts on satisfaction in Taiwan. Also volunteer interpreters’ place attachment was a mediating variable between activity involvement and satisfaction.

A Revised Model
The results of the survey were used to evaluate the hypothetical model linking the three constructs of activity involvement, place attachment, and satisfaction (Figure 1). Using structural equation modeling (LISREL 8.52), the results suggested minor revisions were needed.

The results are presented as Table 4. As noted in this table, the analysis of the hypothetical model resulted in a number of unacceptable values. The adjusted good fit index (AGFI) was 0.85, whereas a number equal to or greater than 0.9 is acceptable (Hu
& Bentler, 1995). Also the standardized root mean square residual (SRMR) was 0.06, and an acceptable number is less than or equal to .05 (Jöreskog & Sörbom, 1989). The root mean square error of approximation (RMSEA) was 0.11, and an acceptable value is less than or equal to 0.08 (Steiger, 1989). Finally Hoelter’s critical number (CN) was 111.2, and a number equal to or greater than 200 suggests an acceptable fit (Hoelter, 1983).

When, however, the organizational atmosphere construct was omitted from the analysis, all pertinent numbers showed acceptable values. This omission was not an arbitrary action. The statistical analysis in LISREL showed that organizational atmosphere and place attachment share similar influencing factors (a modification index number of 62.18). In going back to look at these two factors, it was noted organizational atmosphere was defined as the level of volunteers’ satisfaction to their working environment, the ways of management, and a sense of belonging. Sense of belonging also is a part of the definition of place attachment, which includes physical functional needs, emotional identity, and a sense of belonging (Moore & Graefe, 1994). Eliminating organizational atmosphere from the hypothetical model resulted in a revised model with acceptable values (see Figure 2).

Conclusions and Recommendations
Volunteers at six Taiwanese national parks and the Taipei Zoo exhibited moderate to high levels of activity involvement, place attachment, and satisfaction. Among activity involvement’s three constructs, attraction was rated the highest, while centrality was the lowest. For place attachment, the mean score of place dependence was higher than place identity. Among four constructs of satisfaction, the mean scores from the highest to the

Figure 2: A Revised Model
lowest were knowledge & skill, job characteristics, social interaction, and self-growth.

For the initial hypothetical model of activity involvement, place attachment, and satisfaction, the research did not support the initial design in its entirety. A common influencing factor on both place attachment and satisfaction’s organizational atmosphere contributed to a high modification index, but once this problem was addressed by removing the concept of organizational atmosphere from the calculations (and the model), the modification index was at an acceptable number. The results of the study were consistent with a prior study by Pan et al. (2008) that involved volunteer interpreters in a museum. This study, by using serious leisure theory, recognized volunteer interpreters as serious leisure takers and suggested that volunteers can be evaluated as recreationists rather than employees.

**Practical Application**

From a practical standpoint, the research suggests that management efforts to increase volunteer interpreters’ activity involvement would be a viable way to improve volunteer satisfaction. From the correlation among the variables of the activity involvement/place attachment/satisfaction model, it was found that activity involvement has the greatest influence on satisfaction and also, through place attachment, additional indirect influence on satisfaction. As activity involvement includes pleasure in the activity, opportunities for self-expression, and relationship of the experience with other aspects of life, this may seem almost self-evident, but still the research provides some solid guidelines for satisfying volunteers. Most importantly, it provides guidelines that are distinct from those that would enhance satisfaction of paid employees. If managers take steps to increase the activity involvement of volunteer interpreters, they can focus on the psychological and social factors, letting the volunteer interpreters fulfill their specific areas of interest and knowledge, express their personal styles, and continue to learn activity-related knowledge. Although it may sound trite, the way to increase the involvement of volunteers is to actively involve them. Furthermore, managers can also organize social activities for volunteer interpreters as a way to enhance satisfaction, helping volunteers build their social connections and circle of friends within the context of their volunteer activities.

Based on the survey results, place attachment has an intriguing connection to satisfaction. While the correlation between place attachment and satisfaction was not as strong as the correlation between activity involvement and satisfaction, there was still a positive correlation. However, place attachment, especially the subcategory of place identity was not especially high. If managers took steps to increase place identity, they still would increase satisfaction. Rather than simply concluding that place identity is not as important as activity involvement in creating satisfaction, place identity might be looked at as an underutilized component that should be explored further. For example, managers could encourage the volunteer interpreters to interact more with place, thereby increasing their sense of belonging and sense of recognition to the places. This might include providing additional training programs, insightful readings, and/or recreation opportunities for volunteers, certainly taking steps to deepen the volunteers’ connection to the places where they volunteer.

In addition to managerial actions that might increase satisfaction, it is equally worthwhile to consider possible actions that will not significantly increase satisfaction. In particular, some things that may be appreciated by paid employees may not make much of a difference with volunteers. Improving the physical surroundings of the
workplace is one example. If volunteers are more like recreationists than employees, then they will be more pleased if they are simply given opportunities to show their skills and utilize their specialties, to apply their recreational interests to their volunteering, and to connect their volunteer work to their everyday lives.

Further Study
This study substantiated Pan et al., (2008), which stated that an understanding of the “association among volunteer interpreter activity involvement, place attachment, and satisfaction” can be used to predict the satisfaction of volunteer interpreters in national parks and zoos. Future studies should ascertain whether this is true of volunteers in other related fields, such as community parks, botanical garden, nature reserves, and heritage sites. Additionally the role of organizational atmosphere, even though it was deleted from the final model in this study, deserves further study as it applies to volunteers.

Overall, there needs to be further development and testing of a standardized questionnaire for studying the “association among volunteer interpreter activity involvement, place attachment, and satisfaction.” The model presented in this paper is a starting point for developing a model on volunteer satisfaction. It needs to be tested further, especially as it applies to setting other than national parks and zoos. This model can also be used to conduct multi-group analysis to investigate the differences among volunteers in completely different fields. In general, equating volunteerism with serious leisure shows promise, and this study is one more step in that direction.

Acknowledgements
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References


Comparing Interpretive Methods
Targeting Invasive Species Management at Cumberland Island National Seashore

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attitudes, awareness, evaluation, interpretation, invasive species, knowledge, park management

Abstract
Interpretation designed to increase public understanding and appreciation of environmental issues can provide support for management actions in protected areas, but the relative impact of different interpretive strategies on public awareness and attitudes has not been adequately explored. The purpose of this research was to compare the effects of two interpretive programs (a non-personal, visual-based flyer and an
interpersonal, audio-based talk) relative to a control group on visitors’ knowledge of, attitudes toward, and support for invasive species management at Cumberland Island National Seashore, Georgia. In general, the interpretive talk appeared to be more effective than the flyer at increasing awareness and generating support for invasive species management. Although visitors exposed to each of the treatments displayed greater knowledge of invasive species, effects on attitudes and management preferences were minimal. Future research examining the effects of interpretive media on public awareness of and support for controversial management decisions could therefore explore mechanisms for maximizing the impact of interpretive programming on visitors’ attitudes and preferences.

Introduction
Public land management agencies are responsible increasingly for incorporating public input into decision-making processes. Although legislation such as the National Environmental Policy Act (NEPA) mandates public consultation on important issues, land managers often struggle to reconcile discrepancies in public perceptions and desires with sound scientific management principles (Christensen et al., 1996; Cortner & Moote, 1999). Effective education programs may help to resolve this dissonance. Research suggests that interpretive programs designed to increase public understanding and appreciation of important environmental issues can provide critical support for management actions in protected areas (Bright, Fishbein, Manfredo, & Bath, 1993; Marion & Rogers, 1994; Powell & Ham, 2008). Furthermore, general approaches to conservation—including those centered on education and interpretation—rarely incorporate an evaluation component (Ferraro & Pattanayak, 2006). More research is needed to help public land managers identify optimal, cost-effective strategies for educating the public about critical land management issues, minimizing human impacts, and influencing stewardship actions (Coble et al., 2005; Hughes et al., 2009).

Evaluating Interpretive Approaches
Although education can occur in many places (e.g., websites, news outlets, schools), studies suggest that on-site interpretive programs often have the greatest impact on participants’ knowledge, awareness, and attitudes (Henker & Brown, 2011). Typically, protected area managers will employ two methods of reaching visitors: interpersonal and non-personal communication (Marion & Reid, 2007). Interpersonal communication (e.g., interpretive programs) consists of face-to-face interactions with visitors that allow for two-way communication. This method, often preferred because it facilitates personal contact with visitors (Knudson, Cable, & Beck, 2003), is difficult to consistently implement due to the high cost of training interpreters and staffing interpretive sites (Munro, Morrison-Saunders, & Hughes, 2008). Non-personal communication (e.g., flyers, brochures) enables interpreters to reach a broader audience, but this approach is relatively inflexible and cannot be adapted easily to meet the needs of individual visitors. Because non-personal communication generally requires visitors to create their own meaning from the material presented, park managers often see it as a less desirable form of education (Hughes, 2004). However, because of its comparatively low cost, non-personal forms of interpretation typically dominates visitors’ experiences (Knudson, Cable, & Beck, 2003).

Although the advantages and disadvantages of various interpretive methods are
well established (e.g., Ham, 1992), evaluating the effects of these interpretive approaches on visitors has proven to be difficult. Some authors have argued that the intangible, abstract, and emotional connections inspired by interpretation cannot be captured by traditional evaluation approaches (Dustin & McAvoy, 1985). Other authors have lamented that evaluation efforts rarely probe visitor understanding of key messages and the influence of these messages on visitor beliefs (Beckmann, 1999; Hughes et al., 2009). Studies that have demonstrated quantifiable, concrete, interpretation-mediated changes in visitor knowledge, attitudes, and behavior have focused on the complete experience and not specific delivery methods (e.g., Powell & Ham, 2008; Zeppel & Muloin, 2008). Unfortunately, little research has investigated the educational and transformative value of specific interpretive methods and media on visitors (Henker & Brown, 2011). Authors have also acknowledged that interpretive outcome assessment is absolutely necessary for managers who want to develop programmatic improvements and refine their current understanding of interpretive best practices (Coble et al., 2005; Silverman & Barrie, 2000).

In general, effective interpretation involves messages that are enjoyable or entertaining; relevant to the target audience, organized in a clear and concise manner, and thematic in way that promotes factual understanding, intellectual growth, and emotional connections (Ham, 1992; Ham & Weiler, 2002). Once these conditions are satisfied, both interpersonal and non-personal forms of communication can be successful. In fact, research suggests that the interpretive delivery method may not be as important as the content and context of the message and the general nature of the experience (Wiles & Hall, 2005; Winder & Roggenbuck, 2000). For example, the influence of flyers and brochures on visitor knowledge and attitudes depends on how they are distributed. Flyers obtained independently by visitors at a brochure stand have a reduced impact compared to flyers personally delivered by staff member at the park or protected area (Moscardo, 1999; Oliver, Roggenbuck, & Watson, 1985). However, other research has shown that certain interpretive approaches—notably ranger-led programs—are far more effective than others at helping visitors develop meaning connections with resources (Coble et al., 2005; Henker & Brown, 2011).

If all factors are equal, what type of interpretive message is more powerful? Do the relative benefits of interpersonal communication justify the costs, or are cheaper non-personal approaches equally effective at influencing visitor knowledge, attitudes, and behavior toward environmental issues? To address these questions, this study evaluated the differential effects of two interpretation methods (a non-personal, visual-based flyer and an interpersonal, audio-based talk) on the cognitive and affective components of visitor’s experience within a specific context. In particular, this study focused on the escalating issue of invasive species management at Cumberland Island National Seashore, Georgia.

Case Study Context: Public Perceptions of Invasive Species Management

Invasive species are an issue facing ecosystems throughout the world and are considered to be a major threat to biodiversity across the planet (Bremner & Park, 2007; Gurevitch & Padilla, 2004; Lockwood, Hoopes, & Marchetti, 2008). As economic globalization increases the movement of species via trade, transportation, travel, and tourism, the invasive threat will continue to grow (McNeely, 1996; Pimentel, Zuniga, & Morrison, 2005). Preserving native species diversity and natural ecological processes has become a full-time endeavor for the U.S. National Park Service (NPS) as the fight to ward off
invasive species intensifies (Houston & Schreiner, 1995; Sellars, 1997). In fact, the NPS has acknowledged the important role that public education campaigns can play in the fight against invasive species (McNeely, 2001).

Cumberland Island National Seashore (CUIS), a unit managed by the NPS, is a prime example of an area facing the invasive species infestation issue. Cumberland Island has some very visible and destructive invasive species, such as feral hogs and horses, introduced by previous island inhabitants, that have caused a great deal of ecological damage (Dilsaver, 2004). The feral horses, in particular, represent a contentious and controversial issue for CUIS managers. Although the horses negatively impact the sensitive barrier island ecosystem, many visitors come to CUIS with the specific goal of viewing horses (Kirkpatrick, 1995). This situation creates a challenging management conundrum. In addition to the feral horses and hogs, a new invasive fungus from Asia is killing red bay and sassafras trees at an alarming rate with no containment method currently available (Fraedrich et al., 2008). Furthermore, invasive plant species such as bamboo and the tung oil tree are altering permanently the coastal landscape. The CUIS managers have recognized the negative economic and environmental impacts of invasive species and have stated that invasive feral animals and exotic plants will be managed “to the point that their threat is negligible” (NPS, 1984). However, this aggressive management strategy towards invasive species can only succeed with public support (Bremner & Park, 2007). If managers do not incorporate visitors’ perspectives into the management planning process, they run the risk of losing public support for invasive species policies and control measures (Nimmo & Miller, 2007).

The CUIS context therefore presents an ideal situation for examining public response to various forms of interpretation targeting a contentious environmental issue. Because CUIS is primarily accessibly by ferry, the highly regulated access points create a controlled mechanism for exposing visitors to interpretation treatments and evaluating their response. Although the education outcomes examined in this study focused on invasive species, results could help to refine and adapt similar interpretation programs targeting other natural resource management issues occurring across the country.

**Outcome Variables**

**Knowledge & Awareness**
Knowledge and understanding of ecological topics is required to make informed decisions about protected area management. Visitors that have a greater awareness of ecological issues are generally more likely to support management decisions (Wiles & Hall, 2005). Educational and interpretive programs are proven vehicles for enhancing visitor awareness of salient issues (Powell & Ham, 2008; Zeppel & Moulin, 2008). Background knowledge also mediates the connections visitors develop with on-site information. For instance, Roggenbuck et al. (1982) found that visitors with little prior knowledge upon arrival at a protected area were more likely to have an increase in knowledge following their visit. However, well-educated park visitors are often more receptive to educational and interpretive messages (Hendee & Dawson, 2002). Given these somewhat contradictory results, more information is needed to understand the effects of on-site interpretation on visitors’ knowledge and awareness. Hence, this study examined the effects of interpretation on visitors’ general knowledge of the invasive species issue and specific knowledge of invasives found at CUIS.
Attitudes
In addition to increasing awareness, educational and interpretive programs should aim to influence visitors’ attitude and emotional attachment to an area or a particular issue (Wiles & Hall, 2005). These affective links can help visitors develop a stronger sense of environmental stewardship (Madin & Fenton, 2004). Although Ham (2007) suggested that many interpretive contacts are much too short to have an effective impact on visitor’s attitudes, other studies have shown that object-specific attitudes are fluid and can be changed by individual contact with effective interpretive messages (Kim, Airey, & Szivas, 2011; Petty & Cacioppo, 1986). Individuals’ initial attitudes especially are susceptible to change if they become attached to a stronger attitude or belief (Williams et al., 2002). These patterns emerged from the work of Wiles and Hall (2005), who discovered that individuals with less prior knowledge and weaker attitudes toward an object were more likely to experience program-mediated change. This discovery has important implications for public land management. Through educational and interpretive programs, managers have an opportunity to increase awareness, transform attitudes, and promote an enhanced land ethic in hopes of garnering support for a proposed management action (Marion & Reid, 2007). Hence, this study also examined the effects of interpretation on visitors’ attitudes toward native and non-native species.

Management Preferences
Public land management occurs in an integrated social environment. Managers make decisions that not only influence natural resources, but also impact how visitors experience these resources. Public input into the decision making process is therefore critical. However, rampant discord among scientists, land managers, and the public often complicates this process. While scientists and managers usually act based on scientific evidence, the public often responds to issues based on emotional attachments (Rikoon, 2006). Consequently, interpretive programs must acknowledge and respond to these emotional attachments and environmental value orientations (McFarlane & Boxall, 2000). By shaping beliefs, attitudes, and social norms, educational and interpretive programs can alter stakeholders’ management preferences and potential acceptance of management policies (Absher et al., 2008). Additional research would help to clarify the effects of different interpretive approaches on these management-oriented perspectives. Hence this study also examined the effects of interpretation on visitors’ support for various invasive species management options.

Statement of Purpose
The purpose of this research was to assess the effects of two interpretive programs (a flyer and a ranger-led talk) on visitors’ knowledge of, attitudes toward, and support for invasive species management at CUIS relative to a control group. By comparing mean scores of these target outcome variables for visitors exposed to different interpretive treatments, this study hoped to identify optimal strategies for educating visitors and provide a foundation for informed participatory decision-making processes regarding invasive species management on public lands.
Methods

Visitor Education Programs
The two interpretive programs examined in this study featured identical content delivered in unique ways. The visual interpretive method (hereafter “flyer”) consisted of a two-sided, 8.5-inch by 11-inch black-and-white, illustrated, tri-fold flyer that was distributed immediately to visitors as they exited the dock and arrived on the island (Appendix A). The reading level and general comprehension of the flyer was tested with several audiences (e.g., university students, national park visitors) prior to implementation. The audio interpretive method consisted of a brief five- to seven-minute ranger talk (hereafter “talk”) that was conducted at the unloading zones immediately after island visitors left the ferry (Appendix B). To maintain consistency, each iteration of the talk was conducted by the same interpreter. Both the talk and the flyer contained the same theme: a focus on the invasive species issue in a global, national, and local context, including current challenges at CUIS. Both interpretive approaches were also designed based on Ham’s (1992) guidelines for effective interpretive messages: enjoyable, relevant, organized, and thematic. Visitors in the control group did not receive either form of intentional interpretive treatment when they arrived at the island.

Data Collection
A quasi-experimental, static groups comparison approach was used to evaluate the effects of these two distinct interpretive strategies on a random sample of visitors to CUIS (N=1,093). Arriving visitors on predetermined days from April to September of 2008 were randomly assigned to one of three groups: visitors receiving an interpretive flyer (n=363), visitors receiving an interpretive talk (n=320), and visitors who did not receive any formal interpretive treatment focused on invasive species management (n=410). At the conclusion of their visit, every third CUIS visitor over age 18 was asked to complete a 10- to 15-minute intercept survey while waiting at the ferry dock or on the boat returning to the mainland. This administration approach allowed ample time for survey completion (response rate = 93%). Data were collected via a stratified random sampling procedure to help ensure adequate coverage across days of the week, hours of the day, and dock sites (two separate ferry docks) within the park.

The public perceptions survey instrument was based upon existing literature (Bremmer & Park, 2007; Brooks et al., 1999) and targeted cognitive (What do visitors know about invasive species?) and affective outcomes (How do visitors feel about invasive species?) related to dimensions of invasive species management. Questions were with categorical, multiple-choice, open-ended, or Likert-type responses guided by the tailored design method for survey construction (Dillman, 2007). Visitors’ basic concept of the term “invasive species” was measured with a single multiple-choice item. General knowledge-related items (11 total) were measured on a scale from 1 = “not at all aware or familiar” to 3 = “very aware or familiar.” Visitor awareness of specific invasive species on CUIS (six total) were also measured on a three-point scale where 1 = “I don’t know what this is,” 2 = “I know the name, but I didn’t know it was invasive,” and 3 = “I know what this is and I know it’s an invasive species.” Attitude-related items (14 total) were measured on a scale from 1 = “strongly disagree” to 5 = “strongly agree.” Visitors’ management preference items (12 total) were assessed on a scale from 1 = “unacceptable in all cases” to 5 = “acceptable in all cases.” The final instrument also included socio-
demographic questions and information related to visitors’ general outdoor recreation preferences and experience use history at CUIS and other NPS sites.

Data Analysis
Data were analyzed in several phases. Because pre-visit surveys were not conducted, the random allocation of visitors to each of the treatment groups was confirmed before program effects were examined. Group characteristics were compared using frequencies and chi-square differences. Next, survey responses were checked to ensure that visitors who were exposed to a specific educational treatment were aware that they had received that particular information—validating the quasi-experimental group assignments. Finally, general effects of the educational treatments were examined using a priori analysis of variance (ANOVA) contrasts comparing visitors in both treatment groups (talk and flyer) to visitors in the control group. Treatment effect size ($r$) was also examined for the contrasts using the formula $r = \sqrt{t^2 / (t^2 + df)}$, where $r = 0.5$ was indicative of a large treatment effect, $r = 0.3$ represented a medium effect, and $r < 0.1$ signified a small effect (Cohen, 1988). For variables where the effects of the educational treatments were significant in the ANOVA, specific effects of the talk and flyer were compared using post hoc pair-wise tests with Bonferroni adjustments.

Limitations
Several limitations affect the inferences that can be made from this research. First, the feasibility of implementation and park restrictions prevented this study from using a within-subjects design. Although this type of pre-post method—which controls for respondents’ initial levels of knowledge and attitudes—would have been optimal (DiMauro & Dietz, 2001), it was assumed that the randomly selected control group used in this quasi-experimental approach represented the views and attitudes of visitors not exposed to the interpretive treatments (i.e., the baseline levels).

Second, the population of visitors sampled at CUIS does not necessarily represent the general public at large. Despite this limitation, however, general demographic information suggested that the CUIS sample was similar to other samples in studies involving NPS visitors. The CUIS visitors were fairly homogenous (typically highly educated, high income, and white), and interpretation methods focused on other areas, audiences, or contentious issues might yield different results. In fact, Ballantyne et al. (1998) recommended that interpretive messages and media should be targeted specifically to meet the needs of unique groups. Interpretation that works in one situation may not be as effective in other contexts.

Third, the interpretive messages used in this project focused on an exceptionally controversial issue. Many of the survey questions focused on the island’s feral horse population, and feral horses are a sensitive topic at CUIS (Sharp et al., 2011). Hence, the cognitive dissonance that many visitors experience can be problematic. While many visitors come to CUIS to see the feral horses, they also recognize the destructive potential of the Island’s unique, non-native attraction. Hence, some survey responses may have been skewed as visitors struggled to simultaneously respond to the scientific information presented to them in relation to their personal beliefs and attitudes. However, this complex situation highlights the need for effective interpretive programs and assessments that evaluate their efficacy.
### Table 1. Demographic Composition of Treatment Groups (with Chi-square Difference Tests)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>Flyer</th>
<th>Talk</th>
<th>TOTAL</th>
<th>Diff. Stat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (% male)</td>
<td>48.5</td>
<td>49.3</td>
<td>52.7</td>
<td>50.0</td>
<td>$\chi^2(2)=1.4$, p=0.509</td>
</tr>
<tr>
<td>Age (% under 40)</td>
<td>37.2</td>
<td>44.9</td>
<td>36.9</td>
<td>39.6</td>
<td>$\chi^2(2)=6.0$, p=0.049</td>
</tr>
<tr>
<td>Race/Ethnicity (% White)</td>
<td>93.5</td>
<td>94.6</td>
<td>92.6</td>
<td>93.6</td>
<td>$\chi^2(2)=1.1$, p=0.585</td>
</tr>
<tr>
<td>Education (% w/ advanced degree)</td>
<td>53.9</td>
<td>59.9</td>
<td>57.6</td>
<td>56.9</td>
<td>$\chi^2(2)=2.8$, p=0.252</td>
</tr>
<tr>
<td>CUIS Length of Stay (% day use only)</td>
<td>57.2</td>
<td>71.5</td>
<td>63.6</td>
<td>63.8</td>
<td>$\chi^2(2)=16.8$, p&lt;0.001</td>
</tr>
<tr>
<td>Transportation to CUIS (% riding NPS ferry)</td>
<td>92.1</td>
<td>96.7</td>
<td>97.8</td>
<td>95.3</td>
<td>$\chi^2(2)=15.0$, p=0.001</td>
</tr>
<tr>
<td>Any National Park Visit (% visiting in past year)</td>
<td>60.8</td>
<td>55.6</td>
<td>54.0</td>
<td>57.1</td>
<td>$\chi^2(2)=3.9$, p=0.144</td>
</tr>
<tr>
<td>Any National Park Visit (% visiting in past 5 years)</td>
<td>85.5</td>
<td>86.4</td>
<td>82.9</td>
<td>85.1</td>
<td>$\chi^2(2)=1.7$, p=0.423</td>
</tr>
<tr>
<td>Consumptive Outdoor Recreation Participant (% participating)</td>
<td>42.4</td>
<td>38.6</td>
<td>47.8</td>
<td>42.7</td>
<td>$\chi^2(2)=6.0$, p=0.051</td>
</tr>
<tr>
<td>Member of Conservation Org. (% members)</td>
<td>15.4</td>
<td>15.6</td>
<td>13.2</td>
<td>14.8</td>
<td>$\chi^2(2)=1.7$, p=0.423</td>
</tr>
<tr>
<td>Invasive Species in Media (% exposed to media info on invasive species in past year)</td>
<td>52.0</td>
<td>54.8</td>
<td>49.2</td>
<td>52.1</td>
<td>$\chi^2(2)=2.1$, p=0.349</td>
</tr>
</tbody>
</table>

### Table 2. Percentage of Cumberland Visitors in Each Assigned Treatment Group Acknowledging Exposure to Invasive Species Information from Different Sources During Their Visit

<table>
<thead>
<tr>
<th>Variable</th>
<th>Assigned Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control (%</td>
</tr>
<tr>
<td>Information from Any Source</td>
<td>29.8</td>
</tr>
<tr>
<td>Flyer</td>
<td>2.0</td>
</tr>
<tr>
<td>Talk</td>
<td>2.4</td>
</tr>
<tr>
<td>Other Ranger Talk</td>
<td>26.8</td>
</tr>
</tbody>
</table>

Table 2. Percentage of Cumberland Visitors in Each Assigned Treatment Group Acknowledging Exposure to Invasive Species Information from Different Sources During Their Visit
Results

Defining the Treatment Groups
To compare the effects of the two interpretive treatments relative to the control group, this study had to first confirm that the group assignments were unbiased. Data showed that, with the possible exception of length of stay, groups essentially were homogenous in terms of demographics and experience use history (Table 1). Therefore, it was assumed that a large portion of any observed differences in visitor knowledge of, attitudes toward, and preference for invasive species management would be due to the various interpretive treatments.

Overall, the CUIS visitors consisted of an equal mix of males and females. A vast majority of the visitors were white. The mean age of visitors was approximately 40 years old, and over half of the participants reported education levels that included an advanced degree. This elevated educational level is higher than the general U.S. population but consistent with national park visitors in general (NPS, 2002). A majority of CUIS visitors had been to the island before, and most had visited at least one other NPS site in the past five years. About one-half of all visitors said they had been exposed to some type of information about invasive species in the media during the past year.

Validating Treatment Group Assignments
Although limited access to CUIS helped to ensure that all visitors entering the park on a particular day were exposed to one of the designated treatments, this assumption needed to be validated. To confirm the group assignments on particular days, a survey item was checked that asked participants, “During your visit to CUIS, from which of the following sources did you receive information regarding invasive species?” In general, results suggested that the perceived group assignments accurately reflected most visitors’ exposure to interpretive programs (Table 2). However, not all visitors in the flyer and talk treatment groups acknowledged that they had received educational information or materials in that particular format.

Effects of Interpretive Treatments

Knowledge of Invasive Species.
When asked to choose the best description of an invasive species, 41.3% of visitors selected the correct response, “species foreign to CUIS that out-compete native species.” Visitors exposed to the talk (50.3%) and flyer (40.5%) interventions chose the correct response more often than visitors in the control group (39.8%), \( \chi^2(\text{df}=8) = 19.1, p = 0.014 \), however the difference between the flyer and the control group was minimal. About twice as many visitors in the control group (7.6%) were not sure how to describe an invasive species, compared to only 3.9% of visitors in the treatment groups.

Visitors who experienced the interpretive talk scored higher than visitors who received the flyer on all of these knowledge items, and significantly higher than visitors in the control group (Figure 1). Mean scores for general knowledge items ranged from 1.73 to 2.34, indicating that most visitors were only slightly aware of invasive species and their impacts. Visitors’ general knowledge of invasive species was slightly affected by the interpretive treatments when compared to the control group. For example, the interpretive interventions appeared to significantly positively affect a visitors’ familiarity
Figure 1. Visitors’ General Knowledge of Invasive Species by Interpretive Treatment Group (with 95% CI).

Figure 2. Visitors’ Knowledge of Specific Invasive Species at Cumberland Island by Interpretive Treatment Group (with 95% CI).

Figure 3. Visitors’ Support for Invasive Species Management by Interpretive Treatment Group (with 95% CI).
with why species are considered invasive \( t(1076) = 2.69, p = 0.007, r = 0.08 \), why the removal of invasive species is important to the local ecosystems, \( t(1073) = 2.43, p = 0.015, r = 0.07 \), effects of invasive species on native plants and animals, \( t(1068) = 2.39, p = 0.017, r = 0.07 \), and awareness of invasive species’ contribution to the listing of threatened and endangered species, \( t(1077) = 2.21, p = 0.027, r = 0.07 \). However, visitors exposed to the interpretive programs were not any more aware of the NPS’s mission in regards to controlling invasive species than visitors in the control group [mean score = 1.73, \( t(1071) = 0.86, p = 0.390, r = 0.03 \)].

The interpretive treatments also appeared to affect visitors’ knowledge of specific invasive species. Although knowledge of less conspicuous invasive species such as ambrosia beetles, tung oil trees, and privet was not affected by the treatments, visitors exposed to either the talk or the flyer indicated an elevated awareness of feral horses, \( t(1063) = 2.30, p = 0.022, r = 0.07 \), feral hogs, \( t(1060) = 5.57, p < 0.001, r = 0.17 \), and bamboo, \( t(1054) = 2.00, p = 0.046, r = 0.06 \), relative to the control group. Both treatments appeared to affect visitor knowledge of these species to an approximately equal degree (Figure 2). It should be noted that, although many different invasive species were described in the text, feral horses, feral hogs, and bamboo were the only invasive species pictured on the flyer.

Attitudes Toward Invasive Species.
An exploratory factor analysis (principal axis factoring with oblique rotation) was used to reduce the attitude items on the survey into two primary constructs (see Sharp et al., 2011 for factor loading results): absolute ecocentric items (three total) reflected a belief that all species—even invasives—have a right to persist and should not be controlled by humans; adaptive ecocentric items (eight total) reflected a belief that some degree of human intervention is necessary to manage invasive species to protect native ecosystem integrity. Contrasts showed that the interpretive treatments did not have a significant effect on visitors attitudes on either the absolute ecocentric, \( t(1073) = 0.53, p = 0.598, r = 0.02 \), or adaptive ecocentric, \( t(1075) = -0.13, p = 0.900, r = 0.00 \), subscales. In fact, even when examining individual items, significant differences between the treatment and control groups were not evident, \( t(1059) > 1.78, p > 0.075, r < 0.05 \).

Support for Invasive Species Management.
An exploratory factor analysis (principal axis factoring, oblique rotation) was also used to reduce the management preference items on the survey into three major constructs (see Sharp et al., 2011 for factor loading results): leaving invasive species alone (one item), adaptive on-site management of invasives (seven items), and complete eradication of invasives (two items). Contrasts showed that, relative to the control, the interpretive treatments did not have an effect on visitor preferences for two of the management categories—leaving invasives alone, \( t(1052) = 0.13, p = 0.900 \), or managing invasives on-site, \( t(1070) = -0.47, p = 0.638 \). However, management preference scores for the “eradicate invasives” items were significantly different between the treatment and control groups, \( t(1057) = -2.33, p = 0.020, r = 0.07 \). Contrary to expectations, visitors in the control group actually displayed a greater likelihood of supporting complete eradication of invasive species from Cumberland Island than visitors who were exposed to either the talk or the flyer (Figure 3).

Visitors who listened to the talk were more likely to support any type of active
invasive species management than visitors who received the flyer. In fact, visitors in the flyer treatment group only scored higher than the visitors in the talk treatment group for the “leave invasives alone” option. Mean differences (MD) between the talk and flyer treatments (talk mean – flyer mean) were the most obvious in the post hoc pair-wise comparison tests for the following items: sponsoring invasive hunts (MD = 0.35, \(p < 0.001\)), managing non-natives introduced by humans (MD = 0.18, \(p = 0.028\)), spending money to control invasives (MD = 0.175, \(p = 0.018\)), and eliminating invasive animals (MD = 0.303, \(p = 0.002\)). In all cases, visitors who listened to the talk were significantly more likely to support interventions than visitors who received the flyer. These item-specific differences between the talk and flyer treatment groups were also reflected in the overall subscale scores for on-site management (MD = 0.21, \(p = 0.002\)) and complete eradication (MD = 0.22, \(p = 0.047\)) of invasive species.

**Discussion**

**Interpretive Treatments vs. Control**

Based on existing research (e.g., Roggenbuck et al., 1991), it was hypothesized that visitors who received either interpretive treatment would exhibit an increase in knowledge-based survey scores relative to the control group. As predicted, visitors exposed to the interpretive treatments scored slightly higher than visitors in the control on both the general and specific knowledge scales. However, even after exposure to interpretive messages, many visitors remained unsure of the invasive species concept and unfamiliar with different types of invasive species—a result consistent with previous findings (McNeely, 1996). The most significant positive treatment effects were observed for the CUIS-specific knowledge and awareness items. This result supports previous research suggesting that interpretive messages are most powerful when they are relevant for a particular audience (Powell & Ham, 2008). The interpretive program’s positive effect on public knowledge and awareness especially is encouraging considering the declining environmental literacy rates across the United States (Coyle, 2005; Louv, 2005). If the public is more aware of environmental issues such as invasive species, perhaps they will become more involved in the decision making process and develop a stronger sense of stewardship toward public lands (Dettmann-Easler & Pease, 1999; Orams, 1997).

Contrary to predictions, the interpretive treatments did not appear to have a significant effect on visitor attitudes. These results suggest that short-term interventions such as flyers and brief talks may not be adequate mechanisms for stimulating affective change, supporting earlier research (DiMauro & Dietz, 2001; Ham, 2007). For example, surveys revealed that about 30% of visitors who had been exposed to interpretation (either the flyer or talk) did not realize it. For greater effects on cognitive domains such as attitudes, a more active form of message (e.g., discussion groups, repeated mailings, sustained educational campaigns) may be necessary (Hughes et al., 2009; Marynowski & Jacobson, 1999). Often, the frequency of the message may be more important than the content of the message.

Significant differences between the treatment and control group were observed for one management option: complete eradication of invasive species. Surprisingly, visitors exposed to the interpretive messages were less likely to support this option than visitors in the control group. This could be attributed to the fact that although visitors in the treatment groups were given information about alternative means of invasive species
population control, visitors in the control group may have viewed complete removal as the only feasible option. These responses demonstrate how various forms of interpretive messages can help managers build a case for adaptive management. However, the effect of these messages should be closely monitored so unexpected consequences do not emerge.

**Flyer vs. Talk**

When comparing the efficacy of the two different interpretive strategies, results showed that the interpretive talk had a stronger effect on general visitor knowledge than the educational flyer. The beneficial effects of both interpretive methods on specific knowledge of invasive species at CUIS were approximately equal. The awareness scores for three invasive species—feral horses, feral hogs, and bamboo—especially were high. These species were all pictured on the flyer, highlighting the importance of visual cues in non-personal interpretive messages (Moscardo, 1999; Munro, Morrison-Saunders, & Hughes, 2008).

Differences in attitude scores between the treatment groups were not evident, but management preference scores revealed a recurring pattern. Visitors who received the interpretive talk were significantly more likely to support some type of adaptive on-site invasive species management than visitors who received the flyer, supporting a link between ranger-led (i.e., personal interpretation) programs and stewardship intentions observed in previous studies (e.g., Henker & Brown, 2011). The enhanced value of the interpretive talk approach could be due to several factors. Arriving visitors assigned to the “talk” group were required to listen to the ranger, whereas visitors had no obligation to read through the entire flyer. (In fact, several were directly discarded on the ground at the dock site.) This discrepancy emphasizes the value of enhancing visitors’ experience through interpersonal communication and interaction with a somewhat captive audience (Henker & Brown, 2011; Knapp & Benton, 2004). The talk provided an opportunity to interact with visitors and check for understanding, making certain the central theme of the interpretive message was conveyed. Furthermore, the interpersonal talk helped to situate visitors. A non-personal flyer allows visitors to build upon pre-existing schema for beliefs and attitudes that may be inappropriate, inaccurate, or out of context. For controversial issues where the NPS adopts a particular stance, a talk may be a more appropriate interpretive method.

On the other hand, the interpretive flyer approach conferred a potential advantage that was reflected in the management preference scores. The flyer’s message included information in an accessible, easy-to-read format that visitors could reference at any point during their trip. As visitors congregated at the Island’s docks awaiting departure, they had ample time to review the flyer at their discretion. Perhaps visitors who received the flyer and referred to it multiple times during their visit developed a more positive emotional association with the focal species (feral hogs and horses), which could explain their decreased level of support for complete eradication. In any case, provision of a temporal window for free-choice learning to occur is a distinct advantage of the flyer approach (Falk, 2001). While the talk may have seemed like an intrusive burden to many visitors, the flyer represented a more subtle way to convey a similar message. Unfortunately, the non-personal delivery format of the flyer also enabled its messages to be misconstrued. Although personal methods such as ranger programs occasionally lead to misinterpretation as well, these errors can generally be controlled as speakers adjust and adapt to audience cues to ensure delivery of accurate information. The different
effects of both the talk and flyer highlight a well known pitfall of interpretation—messages that address non-captive audiences and rely on voluntary participation are highly variable in their success (Hammitt, 1984).

Recommendations
Overall, visitor responses to the two interpretive strategies yielded some hope with respect to the educational impact of interpretive messages regarding public land management. The audio-based interpretive talk appeared to have a stronger effect on the knowledge, awareness, and management preferences of CUIS visitors than the visual-based interpretive flyer. To increase the likelihood that information in the visual treatment is consumed and absorbed, the flyer could be revised to include less detailed information, more pictures, and more cohesive theme highlighting the devastating impacts of conspicuous invasives at CUIS. To improve the efficacy of the audio treatment, visitors could be briefed on the island’s invasive species (and other important park information) during their 45-minute ferry ride. This efficient use of time would capitalize on an inquisitive, captive audience and reduce the frustration and anxiety associated with a mandatory information session upon arrival. Research has shown that a non-personal form of audio communication—audio tours using podcasts and MP3 technology—could also be an effective way to connect with visitors (Henker & Brown, 2011; Novey & Hall, 2006). The development of podcasts available on the park website or interactive visitor center kiosks would make information available at the visitor’s discretion. This approach could allow for repeated exposure to interpretive messages as visitors digest material through multiple views and/or listens, increasing their transformative power.

An integrated interpretive approach may yield the best results. Individuals learn and react to material in different ways, and responses to interpretive media can vary across distinct populations (Ballantyne et al., 1998; Coble et al., 2005; Roggenbuck & Berrier, 1982). Factors such as race/ethnicity (Coble et al., 2005) and previous experience at a site (Hughes et al., 2009) often influence outcomes of interpretive messages. Therefore, a combination of multiple interpretive media and educational messages are likely needed to help managers communicate with diverse visitors. Finally, managers should remember that learning about conservation issues is often a secondary motivation for park visitors (Absher & Graefe, 1997). Interpretive messages should therefore be conveyed in a concise and captivated fashion. Public land management involving controversial problems such as invasive species is inexorably guided by public awareness of and attitudes toward important environmental issues. Interpretive programs and educational campaigns could play a major role in that process, ultimately producing more informed collaborative approaches to public land management decisions.

References


Appendix A - Invasive Species Audio Group Flyer

What are invasive species?
- The National Park Service defines an invasive species as:
  - Growing & spreading rapidly
  - Becoming established over large areas
  - Free from the natural controls present in their native lands, such as herbivores, parasites, & diseases
  - Demonstrating rapid & unrestricted growth in new environments
- Invasive species are sometimes called exotic, alien, non-native or foreign species. These names are not all correct, for example not all exotic species are invasive.

Invasive species on Cumberland Island!
- Domestic horses & pigs have been on the island since Europeans arrived (1600's).
- Current wild horse & pig populations on the island are descended from livestock released in the early 1900's.
- Feral (wild) pigs create damage when:
  - Searching or "grubbing" for bulbs, roots & other material found underground
- Feral (wild) horses often:
  - Interrupt the creation of dunes by their eating of critical plants needed to establish the long-term health of dunes on barrier islands
  - Cause ecological damage by over-foraging & trampling of seabird & turtle nests
- An invasive fungus from Asia is killing red bay & sassafras trees
  - Currently there is no known method to stop the spread of this disease
- There have been 66 documented invasive plants identified on the island, which include:
  - Tung Oil Tree, Privet & Bamboo

What do invasive species do?
- Have a negative impact on the environment by:
  - Trampling vegetation
  - Out-competing native species
  - Eliminating future generations of species by destruction of nests & interrupting the food chain
- Invasive species are effecting ecosystems worldwide, & may be the #1 threat to biodiversity across the planet

How Much Do You Know About Invasive Species in Your National Parks?

What can you do about invasive species?
- Find out about plants native to your region
- Check that the plants you are buying for your yard or garden are not invasive.
- When boating, clean your boat thoroughly before transporting it to a different body of water.
- Clean your boots before you hike in a new area to get rid of “hitchhiking” weed seeds & pathogens.
- Don’t release aquarium fish & plants, live bait or other exotic animals into the wild.
- If you plan to own an exotic pet, do your research & plan ahead to make sure you can commit to looking after it.
- Volunteer at your local park, refuge or wildlife area to help remove invasive species.
- Help educate others about the threat.

For more information:
www.nps.gov/invspcurve/aliencitizen.htm
www.nps.gov/plants/alien/pubs/depinavsp.htm
www.invasivespeciesinfo.gov
www.invasive.org
www.nature.org/initiatives/invasivespecies

Did you know…?
- Invasive species are responsible for $20 billion per year in economic damage
- Invasive species have helped add 42% of all species on to the endangered species list
- Invasive species infest 2.6 million acres of National Park Service lands
- The NPS ranks invasive species in front of air pollution, off-road vehicle usage, & visitation pressures as the main threat to the ecosystems of many of its parklands
- U.S. Department of the Interior declared:
  - The invasion of noxious weeds has created a level of destruction to America’s environment & economy that is matched only by the damage caused by floods, earthquakes, wildfire, hurricanes & mudslides
- Approximately 1000 species of non-native plants & 500 non-native animals are known to be a threat to our native flora & fauna in the United States

What can be done about invasive species?
- Controlling for invasive plants & animals is a full-time job that requires indefinite control measures, as plants grow back year after year & animals continue to reproduce
- Cumberland Island’s management stated:
  - Invasive animals & plants will be managed so their threat is insignificant
- Invasive plant species may be controlled through such methods as the use of herbicide & pulling
- Invasive animal species may be controlled through contraceptive measures, adoption programs, & managed hunts, among other methods.

Please Recycle!
Appendix B - Invasive Species Talk Group Script

- Good (morning, afternoon), my name is Ryan and I would like to take the next three to five minutes to tell you about invasive species.
- Can anyone tell me what an invasive species is? Wait for audience response, gather two to three.
- Great. Invasive species can mean many things to many people, but let’s start by defining what an exotic species is:
  - An exotic species is one (plant or animal) that is not native to a particular ecosystem, not native being from a different part of the country or from a different country entirely.
  - Many of America’s staple crops are exotic (or non-native) such as corn, wheat and apples, however, these are not invasive species, simply non-native.
  - A species becomes invasive when it begins to outcompete native species, replacing them in that particular ecosystem.
  - Can anyone name an invasive species they have heard of? Wait for two to three responses.
- The National Park Service defines invasive species as:
  - Species that grow and spread rapidly and are free from the natural controls present in their natural lands, such as herbivores, parasites and diseases.
- So why is this important? Invasive species can have a negative impact on the environment in the form of trampling vegetation, out-competing natives species and eliminating future generations by destruction of nest and interrupting the food chain
  - Invasives are responsible:
    - For $20 billion per year in economic damage
    - 42% of all species on the endangered species list
    - Covering 2.6 million acres of NPS lands
    - The NPS ranks invasive species in front of air pollution, off-road vehicle usage, and visitation pressures as the main threat to the ecosystems of many of its parklands.
    - 1,000 species of invasive plants and 500 non native animals.
- Cumberland Island has 66 documented invasive plants such as tung oil tree, privet, and bamboo.
- Cumberland Island has an invasive beetle that carries a fungus that infects red bay trees on the island.
• The horses and pigs were introduced to the island in the 1600s. However the current populations are descended from livestock released on the island in the early 1900s.
  • Pigs have been known to eat sea turtle and sea bird eggs on the beach.
  • Horses eat the sea oats which are vital for dune stabilization; over forage in the salt marshes reducing critical habitat.

• So what can be done to control invasive species?
  • Invasive plant species may be controlled through such methods as the use of herbicide and pulling.
  • Invasive animal species may be controlled through contraceptive measures, adoption programs, and managed hunts, among other methods.

• So what can you do to help prevent the spread of invasive species?
  • Find out about plants native to your region.
  • Check that the plants you are buying for your yard or garden are not invasive.
  • When boating, clean your boat thoroughly before transporting it to a different body of water.
  • Clean your boots before you hike in a new area to get rid of “hitchhiking” weed seeds and pathogens.
  • Don’t release aquarium fish and plants, live bait, or other exotic animals into the wild.
  • If you plan to own an exotic pet, do your research and plan ahead to make sure you can commit to looking after it.
  • Volunteer at your local park, refuge, or wildlife area to help remove invasive species.
  • Help educate others about the threat.
IN SHORT
Towards a Cultural Analysis: The Need for Ethnography in Interpretation Research

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Abstract
The author examines a decade of interpretation research and focuses on the limited amount of qualitative research available, especially ethnographic. This highlights a trend in which there is a substantial absence of work derived from qualitative perspectives and even when studies are considered qualitative they are overwhelmingly geared towards individual visitor outcomes and large-scale studies and surveys. Drawing upon anthropological insights ethnography as both method and substance is explored. An argument is presented that ethnography, in its attention to context, making connections, shared social interactions, and holism is keenly suited to the study of interpretation and perhaps the best way of exploring meaning making, a prominent component of the field. Interpretation research is missing an important cultural analysis of the practice of interpretation, and ethnography offers a unique and invaluable lens by which to study interpretation as a cultural and social act.

Keywords
ethnography, cultural analysis, interpretation, qualitative research, meaning making, socio-cultural interactions, context

Introduction
Contemporary research on interpretive programs in park settings has focused on individual visitor outcomes, particularly visitor memories and behaviors, such as following park signage for not feeding animals, leaving trash, or picking plants. Much of the research I examined for this paper is survey based, or conducted on a macro-level of large sample sizes. This kind of research surely tells us important information; such as
whether visitors notice park signs and whether they follow explicit rules or guidelines. Yet, what is missing from this body of research is a protracted, in-depth, and intimate account of the practice of interpretation. Studies along these lines might explore shared social experiences, cultural meaning, and how people evoke meaning from a place while at the same time inscribing meaning upon the land. While there have been many studies that have explored individual cognitive and behavioral outcomes for visitors, a cultural analysis of the social process of interpretation has been absent.

I begin this work with an explanation of ethnography as method as a way of foreshadowing what it may offer interpretation research. I provide an explanation of what ethnography is and how it is not only well suited to the study of interpretation, but shares many important correlatives; such as holism, context, making connections, and emplaced meanings. The next section is concerned with the limited amount of qualitative studies and in particular ethnographic studies within the larger body of work in interpretation research. My review of the trends and methods in interpretation research emphasizes the current focus upon individual affected outcomes, and the important role of communication from an individual orientation. Subsequently, I make the argument that communication is inherently a cultural and social process and requires research capable of socio-cultural analysis. From my examination of current research trends I make the case for ethnographies of interpretation as a way of exploring culturally imbued concepts such as meaning making, symbolic awareness of place, and relationships bound to place.

This paper then, provides a short analysis of a decade of research, an exploration of ethnography, and an argument for ethnographic inquiry. By situating ethnography as an important and unique lens by which to understand the cultural dimension of meaning making inherent in interpretation, I argue that there are gaps in our knowledge of interpretive practice. As the American anthropologist Harry Wolcott suggests, ethnography allows a researcher to tell the story of someone else through participant observation and cultural analysis. It is seldom that the culturally imbued story of the interpreters and their field is heard. Within the framework of ethnography we have the capacity to tell the story of the construction and evocation of the inherent meanings of a place. To this end of exploring the cultural elements of interpretation, let me begin with ethnography as method to set the stage.

A Place for Ethnography in Interpretation Research

Ethnography: Method and Substance
Arising out of the interpretivist tradition of anthropology, ethnography, and thus, ethnographers position participant observation and cultural analysis as integral to gaining an intimate and subjective awareness of individuals and groups. The interpretivist/constructivist paradigm begins epistemologically by assuming that all knowledge is constructed or co-constructed by individuals and groups. This framework then moves ontologically to questions of what is real based on human perceptions and meaning construction. In contrast, the positivist/objectivist paradigm begins ontologically with what is assumed to be real and then explores the epistemological nature of what is known under the assumption that there exists an objective reality outside of human consciousness. This is important in positioning qualitative work, specifically ethnography, as uniquely suited to the exploration and analysis of interpretation and the construction of meaning.
In arguing for ethnographic study in interpretation, I am following Harry Wolcott’s perspective on ethnographic research. As Wolcott (1999) explains, ethnography is a field-oriented activity in which cultural interpretation is embedded as its core. Using Wolcott’s explanation as a guide in interpretation, ethnography would potentially focus on explicating the construction of meaning intrinsic to the field and provide a cultural explanation by way of ethnographic field-work and cultural analysis. Wolcott offers his “trilogy” of ethnographic techniques or activities which form the basis for data collection in a study. These include: experiencing (participant-observation), enquiring (interviewing), and examining (archival research). By way of these three in situ components, committed over a prolonged period of time the implicit meaning and awareness of participants can be gleaned in a way that surveys cannot.

In essence, ethnography both describes and interprets shared and learned patterns of behaviors, values, beliefs, knowledge, and language of a social group. This work is participant-centered and, as Wolcott suggests, tells the story of a people or helps them tell their own story. Bronislaw Malinowski, considered the father of modern anthropological fieldwork, stressed intimate contact, through participant observation, “to grasp the native’s point of view, his relation to life, to realize his vision of his world” (1922:25). Awareness of the native’s view is central to ethnography but has not been a priority within interpretation research to this day.

In his explanation of ethnography as a way of seeing things in the field, Wolcott enjoin that ethnography is more than simply method. He maintains that the ethnographic endeavor is guided by a concern with cultural interpretation. “As important as field work is to accomplishing ethnography,” he writes, “it is the mindwork (and the accompanying deskwork) that goes with it that is most critical” (Wolcott, 1999:66). Wolcott frames ethnography first according to principles in which culture is understood in general by examining culture specifically (1999). Therefore, ethnographic study moves beyond the purely descriptive by analyzing behavior and meaning to understand particularities of cultural practices in particular places.

In explicating the underlying purpose of ethnography, Wolcott couples the description of what people are doing in a particular place with an examination of the meaning that these people ascribe to what they do, thereby drawing attention to cultural processes more generally. Ethnography, in this way, is both method; the ways of studying culture, and the “interpretive framework” (75) that ethnographers apply to their study. This further highlights the power of the ethnographic endeavor in regards to the practice of interpretation. Both ethnography and interpretation are committed to the locally derived and inscribed meanings of a place, of learning the specific insider view as a way to broaden our awareness of a larger world.

Researchers who are committed to ethnographic inquiry are simultaneously committed to the specific place and people of the study and an integration of the two. Wolcott stipulates that ethnographic research is both holistic and contextual. Ethnographers “examine things in their entirety rather than only in parts” and are adept at “making connections [his emphasis] between things” (1999:79). “Holism,” Wolcott writes, “is not an invitation to fill up a study; it is a call for tracing interrelated elements and fitting parts together” (79). In regard to context, Wolcott asserts that this is “something one can expect (and insist on) from ethnography that is most apt to be stripped away in any more narrowly focused approach” (79). This should also remind us that there are significant differences even among qualitative studies (case studies and
phenomenological work as examples) each with different goals, methods, theoretical foundations, and levels of interaction. Ethnography offers a particular and unique perspective on a study even among other forms of qualitative research.

Clifford Geertz’s (1973) conceptualized explanation of culture as “webs of significance” (5) speaks to this interconnection between historically shared patterns of meaning, much as a strand of a spider’s web is connected to every other. “I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning” (1973:5). There is no hypothesis testing within this search for meaning, rather a highly contextualized exploration of the native view (both individual and collective) of socially construed emanations of meaning.

From the description above it should be clear that ethnography offers a unique lens by which to explore cultural phenomena, and when examined side by side with various descriptions of interpretation shares important tenants and orientations. These are holism, context, making connections, telling the story of a group, attention to details and local meanings, and longevity in the field. In the end, both interpretation and ethnography are interested in relationships and the construction of meaning among people. While explorations of social interaction, relationships, and cultural analysis are missing elements from contemporary interpretation research, ethnography can fill this gap.

The Reach and Limitations of Interpretation Research

Trends in Interpretation Research: Methods and Methodology
I reviewed the Journal of Interpretation Research from 2001 to 2011 to look for patterns of research within the journal. I read abstracts of each article, in each volume, including empirical research, “In My Opinion,” and “In Short: Reports and Reviews.” I read the full article for all those that mention the word research or that implied research; either in method, methodology, empirical data, or historically. Subsequently, I coded the articles for topic, method, and methodology. My focus in this opinion piece is to what I found when looking across the two codes of method and methodology. What I found is that there are important patterns that highlight what methods are priorities and what are contemporary trends in research and writing. I would argue that what gets published in journals is a reflection of what is predominant and privileged in the field. In which case these patterns are not only suggestive of dominant trends but further what is left out and/or marginalized. While there were a handful of articles that were generally concerned with qualitative inquiry, there was not one that engaged in ethnographic fieldwork or cultural analysis. Within the work I examined there was a consistent emphasis upon cognitive and social psychology as a framework for examining methods and efficacy of interpretative practice (Ham, 1992, 2004; Morgan, 2009; Tarlton & Ward, 2006). Yet, studies on the cultural significance of meaning making through interpretive work and methods are absent. This makes sense in many ways when you consider that the majority of the studies I examined were concerned with individual affected outcomes.

Individual Affected Outcomes Within a Cultural World
What is salient here is that these outcomes are examined as individual in orientation, regardless that the visitor perspective arises out of a shared cultural experience. A focus on individual outcomes limits our understanding to a one-dimensional view of the process and does not attend to communication and meaning making emanating out of
a cultural setting. Because of this, there is a lack of research on the communicative style of instruction itself, on the stories and storytellers, and on the role narratives play in interpretation. What is needed is more research that attends to the multiplicity of ways that places are sensed and learned by examining the shared cultural process embedded in interpretation.

And yet the research has focused almost exclusively on visitor outcomes—large-scale studies involving questionnaires and surveys. The field would benefit from prolonged qualitative inquiry of in-depth interviews and participant observation. As an example, Morgan’s (2009) work provides insights into individual perceptions of place attachment (a kind of sense of place, in his estimation). His study, using cognitive map theory, provides an individual orientation in its use of a questionnaire for 200 visitors to a cave tour, highlighting program success. Morgan’s work on place attachment, with a sample size of 200, attempts to ascertain or measure how individuals identify with natural settings, each interview taking approximately 10 minutes to complete. Morgan’s work sticks to the individualized cognitive sphere. Although I argue it would benefit from ethnographic accounts of social interactions, something he is interested in exploring in his work with Walker at Mammoth Cave (2011). In this way the importance of shared, collective social interactions within a place would be privileged alongside the individual cognitive outcomes.

Role of Communication

One consistent theme of interpretation is the intrinsic role communication plays within interpretive work and research. This stems from Tilden’s (1977) own explanation and definition of interpretation as a communicative act. As Ham remarked in Environmental Interpretation (1992), “being an interpreter first means knowing about communication, and being able to recognize and explain the qualities that make it work best…. It is an understanding of how communication works, and practical knowledge of how to apply it, that are at the root of most effective interpretive programs” (xviii–xix). He continued this line of reasoning by suggesting that interpretation is the application of nearly two centuries of research on communication.

Ham (2004) has stressed that interpretation research should employ “concepts from behavioral sciences in order to understand the pathways through which communication influences how humans think, feel, and behave” (65). Further, that “practitioners, managers, and especially teachers of interpretation need to be familiar with this body of knowledge since it is the one disciplinary focus that binds us all together, regardless of where we work and what we interpret” (65). Interpretation, as practice and inquiry, is thus firmly oriented towards an exploration of communication from the individual perspective. Consistently slanting towards what individuals cognitively take from the experience privileges the behavioral sciences.

Yet what is missing from this is some sense of how culture and social interactions influence the social act of communication and subsequently interpretation. I argue that cultural studies are a second body of knowledge that interpreters share, in that all forms of communication, including language arise out of cultural systems. There is a rich legacy of research within the social sciences devoted to the exploration of culturally embedded language and place (Basso, 1996; Feld, 1996; Stewart, 1996). The forms of communication employed in interpretive work are nested within a particular cultural value orientation, and are informed by underlying symbolic systems of knowledge and awareness.
What this means is that when an interpreter is engaged in the sharing of information and stories (the communicative act), she/he is tapping into a shared, experiential, and symbolic awareness of place. Culturally interconnected knowledge and experiences of the visitor become related to the place through interpretive practice. The importance of the collective nature of knowledge and experiential acquisition is reified through the exchange of stories and experiences. Through the process of creating personal and social meaning within a particular place there is important and symbolic information which is communicated and shared. At the heart of interpretive practice is the cultural exchange and sharing of knowledge and meaning among people.

The Scope of Socio-Cultural Analysis
While surveys offer a glimpse into the ideas and awareness of participants these measurements may not be able to account for the multiplicity of ways that individuals might identify with place. The continued use of cognitive map theory, following in the wake of years of other studies (Ham’s being a good example), makes sense given the preoccupation in interpretation research with how human memory is influenced by experiences and how this might have affected outcomes. These studies using cognitive map theory are invaluable in ascertaining individual reactions and perceptions, however, it would seem that there might be other maps—cultural maps, social maps—which need be explored to fully account for how it is that meaning and experiences are created, shared, and remembered.

There appears to be an interesting paradox in interpretation research. For a profession that relies so heavily on the narrative form of knowledge transmission, there are limited examples of research devoted to the field that work within a qualitative framework. Similarly, for a profession which is dependent upon place-bound knowledge, there is little in the way of research which examines the role of place in the construction of meaning. It is interesting again that a field so tuned to the sharing of experiences and the building of relationships exhibits little research which examines this form of shared interaction through experience and stories, but rather relies heavily on cognitive outcomes for the individual. Extensive qualitative inquiry, and certainly ethnography can attend to these missing elements of the research.

However, in interpretation research, social science-based inquiry is generally undervalued and underrepresented (Vander Stoep, 2004; Zarki, 2004). Vander Stoep (2004) suggests that the present scenario in interpretation research is illustrative of a reduction in priority for social science research for the National Park Service (NPS). She stresses that NPS has a single social science unit for research, which is directed on a part-time basis. Further, lists of U.S. Forest Service research publications highlight “substantially fewer social science articles than of biologic and physical science research” (58). In light of understanding that human behavior is integral to ecosystem management, Vander Stoep (2004) questions why so little research is being conducted on social science issues. Zarki (2004) suggests that “interpretation research at the park level is generally less robust and less well institutionalized than its counterparts in the hard sciences” (73). These examples from the field are suggestive that there is privilege accorded the hard sciences in general which creates a marginalization of qualitative inquiry specifically.

Subsequently, this may garner institutional support for a more quantitative orientation within the social science research focused upon interpretation. The
devaluation of the qualitative component of social science research has been detriment to our understanding of meaning and culture within the context of interpretation. Thus, institutional support, funding, and even a cultural marginalization of qualitative work act as limiting factors for socio-cultural analysis. Ethnography, in its attention to context, does not offer a universal set of guidelines and no absolute fixes for our social dilemmas. In this age of standardization the substance and uniqueness of ethnography may set a bias against it.

Vander Stoep (2004) asserts that interpreters and interpretation researchers “draw on theory and practice from many other fields: learning theory, education, communication, psychology, marketing, persuasion, and others” (60). It is curious that culture studies, anthropology, narrative studies, and folklore are not part of the pantheon of theory and practice from which interpretation draws. This has implications for the types of research being conducted and the questions asked. Interpretation is, in essence, cultural work and interpreters act as cultural agents charged with the exploration of emplaced meaning. Naturalists tell stories of cultural significance nested within cultural landscapes and culturally constructed parks and preserves. This is practiced in the hopes of changing perceptions and attitudes and both creating and passing on meaning. Ethnographic work is necessary, even vital in evoking what occurs through interpretation and to more fully account for cultural elements of this process.

Towards a Cultural Analysis of Interpretation

**Meaning Making**

Interpretation literature is replete with exemplars, explanations, and theoretical musings on fostering a sense of care for a place or habitat and emotionally grounding experiences to give audiences a deeper connection to what they are experiencing (Beck & Cable, 2002; Brochu & Merriman, 2002; Chen, 2003; Dec, 2004; Goldman, Chen, & Larsen, 2001; Knapp & Benton, 2004; Larsen, 2003; Mills, 1920; Tilden, 1977; Sobel, 2004; Turek, 2006; Zarki, 2004). In highlighting the centrality of this, Turek (2006) states that “interpreters seek to connect their audiences directly with the resource—natural, cultural, historic. Each resource has its own story, its own voice; interpretation offers the venue for the visitor to hear that site-specific story and share in the work of making meaning” (48). Meaning making denotes a deeper relationship between people and place which needs expression and analysis in research.

Indeed, meaning making is a predominate theme in interpretation literature. Tilden (1977) describes interpretation as “an educational activity which aims to reveal meanings and relationships” (8). He contends that thousands of specialists “are engaged in the work of revealing” to visitors “something of the beauty and wonder, the inspiration and spiritual meaning that lie behind what the visitor can with his senses perceive” (3–4). Tilden’s words should not be underestimated, for his seminal work, *Interpreting Our Heritage*, is omnipresent in interpretive writing. As an example of this, Beck and Cable (2002) reiterate the centrality of meaning making by suggesting that interpretation must move beyond merely giving information to explore deeper and inherent meanings. This deeper purpose of interpretation to go beyond mere information is evocative of the social interplay between visitor and interpreter as they share the experience and the meaning of a place.

Meaning making and emotional grounding find resonance in anthropologist Keith Basso’s conceptualization of a particular form of research, which he calls “topographies
of lived experiences” (1996:111). These topographies express a relational concept of place (Streibel, 1998) in that deeper and symbolic meaning is explored. In articulating his own version of ethnographic work, Basso says he “would like to witness the development of a cultural ecology that is cultural in the fullest sense, a broader and more flexible approach to the study of man-land relationships in which the symbolic properties of environmental phenomena receive the same kind of attention that has traditionally been given to their material counterparts” (1996:67-68). This is important in providing a more holistic understanding of how people dwell in place, for “the possibility arises that as speakers communicate about the landscape and the kinds of dealings they have with it, they may also communicate about themselves as social actors and the kinds of dealings they are having with one another” (74). In this regard the land is both a setting for social interaction and a vehicle for self and group expression and meaning making. Basso’s explanations offer a counter narrative for examining human/place relationships that are integral within interpretation.

How is this meaning making conceptualized among interpretation researchers? Upon closer scrutiny, this form of meaning making exhorts interpreters to provide or create a space whereby visitors can create their own meanings dependent upon their own lived realities, memories, and experiences. A successful interpretive program, Chen et al. (2003) write,

> creates an opportunity for the audience to form its own intellectual and emotional connections with meanings/significance inherent in the resource, and should be appropriate for the audience and provide a clear focus for its connection with the resource(s) by demonstrating the cohesive development of a relevant idea or ideas, rather than relying primarily on a recital of a chronological narrative or a series of related facts. (2)

Explained in this fashion, interpretation is conceived as a process of meaning making rather than a particular goal of environmental protection.

Dec (2004) similarly expresses how this process of meaning making is to be accomplished. The job of an interpreter, he writes, is to allow visitors “to experience and find their own definitions of significance. Assisting the visitor through the process of discovery that results in personal meaning is the heart of our purpose” (74). By exploring the word interpretation, Dec expresses that the field seeks to “uncover or reveal the mystery. We do this to impart meaning to present generations and to honor past generations. We do this to preserve the stories and the systems” (2004:74). Dec is expressing that the process is not solely one of enriching the lives of the participants, but of preserving cultural and natural heritage and the associated histories and stories of a place. This requires the inculcation of care and emotional connection, but this comes about through social interactions and the development of emplaced relationships.

**Relationships**

From the ethnographer’s vantage point, “situated talk of geographical landscapes is more than a valuable resource for exploring local conceptions of the surrounding material universe. It may, in addition, be useful for interpreting forms of social action that regularly occur within that universe” (Basso, 1996:75). These places are alive in the memories, stories, and experiences of people and in this regard they form lived
topographies which have deep symbolic as well as material relational import. In this regard, “landscapes and the places that fill them become tools for the imagination, expressive means for accomplishing verbal deeds, and also, of course, eminently portable possessions to which individuals can maintain deep and abiding attachments, regardless of where they travel” (75). It sounds as if Basso is describing the practice and outcomes of interpretation even though his own research is with the Western Apache in the southwest. Basso’s work is suggestive of the power of emplaced relationships, between people and place and among people within a place. This is the type of research within interpretation that ethnography can produce.

As relationships to place are represented and enacted through social interactions, Basso writes, “places and their meanings are continually woven into the fabric of social life, anchoring it to features of the landscape and blanketing it with layers of significance that few can fail to appreciate” (110). Basso continues by explaining that people constantly reproduce and express their own individual sense of place and thereby their own awareness of themselves. The ethnographer’s task, as conceived by Basso, is in determining what these various acts of expression involve and subsequently relating these expressions to broader conceptions about the world and its inhabitants (1996). To do so necessitates a level of researcher involvement beyond just human inhabitants. It requires direct experiences with the phenomena itself (Hunter, 2009). Moving towards ethnographies of interpretation can offer a different view of the field, indeed, one which seems eminently suited to the task in both theory and method. This path towards ethnographic understanding would potentially locate implicit meaning construction, relational concepts, and symbolic understandings as focal points in the craft of interpretation.

Conclusion
What I have attempted to do here is argue for the need of a culturally embedded form of research in interpretation. The trajectory of interpretation research I examined not only suggests the need for more qualitative research in general, but more specifically the emergence of work that attends to cultural analysis. To understand the field from a new perspective requires social science research which is truly social in orientation. The field of interpretation as defined by the National Association for Interpretation is “a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource” (2009). While research has focused on the communication component, specifically through individual outcomes and behaviors, the process of forging connections through shared social interactions has been neglected. This forging of connections implies an interactive construction which is socially grounded, culturally tuned, and experientially shared. My guess is that this element is not only missing from research but from the practical application and training of interpreters themselves.

While a great deal is learned from the examination of interpretation as a communicative process, I think a great opportunity is missed in regards to how it is simultaneously a cultural process. The dynamic nature of shared social experience and meaning making required to be an effective interpreter has not been addressed within research. And we have not taken into account the power of place as not only the location of human social interaction but as a symbolic and tangible reminder of our relationship to the larger world.
Arjun Appadurai (1996) suggests that the study of locality and the production of natives is the teleos of anthropology and by proxy ethnography. This is a good starting point for a continued and invigorated exploration of the modern form of interpretation we experience in parks and preserves and the active construction of meaning, both individual and collective. If our modern realities have indeed led to a dislocation from the place in which we dwell, what is needed are more ethnographies of interpretation meant to understand the seemingly concerted effort to foster both meaning making and, to borrow Basso’s term, “topographies of lived experience” (1996:111). This can aid not only researchers and writers but those in the active practice of interpretation. This type of research can foster awareness of the cultural work in which interpreters are engaged and a deeper appreciation for the interactive social element of meaning construction.

The potential for examining emplaced social interactions and the construction of meaning by way of cultural analysis would assume that ethnography is not only appropriately suitable, but uniquely necessary. The importance of context, holistic awareness, and drawing connections between events, behavior, and phenomena are values implicit in ethnographic undertakings. This orientation offers an examination of people and place that wanders beyond a purely materialist way of comprehending this relationship. In many ways this is inherent in the practice of interpretation as well. And what this implies is that interpretation is inherently a social and cultural act requiring research capable, in methods and methodology, to evoke what is going on in the field.

References


Reflections on Educational Leadership & Innovation

An Agenda for New Research

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“Innovation distinguishes a leader from a follower.” —Steve Jobs

Park Service and museum professionals live by a multitude of calendar demands that seem to define their days; from grant submissions to shipping dates, from project reports to newsletter deadlines, it isn’t easy to build in time for reflection and analysis, let alone the development of strategies that help visitors have meaningful connections and experiences with our resources. In addition, organizational cultures can sometimes feel chaotic, or they can move at a snail’s pace, so when professionals are identified as real innovators, they’re “Googled,” “friended,” or “followed,” and they’re invited to present and publish. There is no doubt in my mind that innovators have resolve and push the limits. They tackle challenges, question assumptions, create richer visitor experiences, get results, and raise the bar for the field.

So how do we achieve dramatic outcomes as a result of, or in spite of, organizational cultures?

Start with a Purposeful Premise

If we build a purposeful and creative life by what we choose to do, then regardless of our position on an organizational chart, that old cliché rings true: leaders are not born, they’re made. I’ve always thought that being an educational leader is a lot like being a plate spinner in a multi-ring circus. A plate spinner needs to know how to get a plate spinning and keep it in the air while moving to attend to the next one. Organizations always have several plates in different states of spinning, starting, waning, and needing attention, and the challenge can be both overwhelming and exhilarating.

Innovative leaders provide the conditions that make it possible for staff and volunteers to do their jobs. It is one thing to be accomplished in spite of an organizational culture, but it’s something quite wonderful to do so because the organization supports staff work and makes it exciting to be part of something much bigger than ourselves.
Communication is one of the most important qualities of any strong leader. Regular exchanges with and among staff keep everyone on the same page. The well-run meeting, an art form unto itself, is critical, but it’s just as important to also walk around and visit with staff and volunteers on a routine basis. The frontline staff and volunteers have the most direct contact with the public, so their opinions should be especially valued. Count on them to make decisions that affect visitor experience. This bears repeating. Our guests are served better when those closest to them are empowered to make and enact decisions affecting their visits. Leaders subject themselves to dissenting opinion. By refining good ideas, we weed out the bad ones, and acquire new concepts (Myatt, 2008). A true test of sound leadership is learning to listen and delegate, and feeling good about letting go of the desire to be in control. No one individual ever has all the answers.

When staff members are coached or mentored, encouraged, empowered, and supported at all levels (depending upon what is needed), organizations can make so much progress toward meeting their missions and achieving goals that impact the many communities they serve. It takes a lot of hard work and resolve to build solid relationships with staff. A sense of purpose and accomplishment unites a staff. The shared commitment to providing and examining experiences that make a real impact on visitors, knowing the characteristics of audiences, and working to meet their needs is the difference between programming for some “pretend” audience and really enriching lives.

It feels important to position the discussion of leadership and visitor experience within the larger context of strategic thinking. Many organizations claim to do so, and the result is often a written plan. In truth, some colleagues dread it, and therefore, don’t engage in a strategic view at all. Strategic plans are not simply documents needed to help get a grant, realize a general management plan, achieve accreditation, recruit a board member, or (worst-case scenario) sit on a shelf or get buried in a file cabinet. A good plan is a well-grounded and clearly articulated account of organizational means and ends. Yet, some understandably dislike the time it takes to get from point A to B, and the jargon with which the whole exercise is often unnecessarily clothed. They also dislike the overt declaration of ambition explicit in the task of planning, and the participative process that is required to reach a factually grounded, defensible consensus about those means and ends (Ellis, 2010). Strategic foresight allows us to think beyond daily operations and use creativity and imagination to plan for the future. I’ve learned enough to know that a strategic plan is unlikely to progress unless there is a common understanding and endorsement among those involved in making it a reality.

As Stephen Weil (1999) ardently reminded us so many times, the best-case scenario effectively involves our audiences to help us think strategically, and pairs this knowledge of identifying and knowing the characteristics of our existing and potential audiences, with effectively evaluating our activities in terms of their audience impact. I have absolutely no doubt that innovative leaders not only know this, but succeed because they do this. They think about and value the visitor experience.

What does it mean to create and assess the impact of the visitor experience, and more importantly, why don’t we do it routinely? Evaluation expert Randi Korn (2008) argues that we often mistake outputs for outcomes or impact. Outputs describe how many, how much, and how big, with references often to how many tours we’ve led, or contact hours we’ve documented. Leaders who truly care about human experience, relationships, and service to communities, focus on creating more and more outputs missing the mark in describing the true value of our work.
Good leaders reflect on their efforts in terms of values. Maxwell Anderson’s (2004) landmark paper, commissioned by the Getty Leadership Institute, asserted that the hardest measurement of our success is in some ways the most important: the quality of the visitor’s experience. While acknowledging how hard it is to gather evidence and documentation of one’s sense of “resonance and wonder,” this can prove most significant in assessing how well we actually serve our public.

John Wetenhall (2008) took this premise even further. He challenged us to “define our dividends,” encompassing not only the quality of what we exhibit, but also the fulfilling nature of how we interpret, whether it is through waysides, visual labels, talks, tours, interactives, publications, or activities using new technologies. I resolve to explore the richness of our cultural programming, the depth of the learning experiences we offer, and the transformative experience of a meaningful engagement. I admit that when I first read Wetenhall’s list, I wanted to proclaim that I have been and I am that kind of leader, but he projects a vision that we might find ourselves trying to attain for the rest of our careers, and that’s okay by me.

No one disagrees that, overall, the world is changing rapidly, and this reshaping of the world has transformed the ways in which history is created, constructed, communicated, understood, taught, and learned. For me, the bottom line is not to forget that our sites can encourage fresh ways of seeing, thinking, and engaging with the world.

Be the Change Agent
Six weeks into my tenure with the National Park Service, I participated in the Service’s Leading for Excellence Conference (2010). I poured over the materials presented, and during the event, I caught myself writing a few assumptions over and over:

Assumption #1. Leaders care about what visitors do and how they learn.
Assumption #2. Innovators shape and deliver experience.
Assumption #3. Through rich experiences, visitors construct knowledge of themselves and of their lives as part of larger contexts, and when their experiences are meaningful, relevant, and fun, we create reasons for them to become more deeply engaged and make even richer connections.

These assumptions became my mantra and I posted them by my computer when I returned to the office. I pondered them for many months. Although the list contained only a couple of items, it completely resonated with me because I believe that visitors are drawn to our sites because they want to have or share an experience. They want to see or learn something new from something real. We can commit ourselves to advocate for visitors by helping them shaping their experience in particular ways so that we can evaluate our efforts to see whether, or how, we meet their expectations. This starts with the development of a conceptual framework.

Define the Pleasure Principle as the Conceptual Foundation for Discovery
Our sites can be places of wonder, exploration, learning, and fun. Some have become adept at designing developmentally appropriate programs to make visits more comfortable and accommodating.
When seeing the authentic site, visitors can make the connection between what they already know and what they’ve learned every day at home and in school. The Pew Charitable Trusts (2009) recently proclaimed that a new and imaginative 21st-century cultural environment is taking shape in our profession. We’re becoming places where all people, not simply those who are knowledgeable about a particular subject, gather to learn, socialize, be entertained, discuss and debate, and share experiences. We have to ask ourselves how we change the ways we work to ensure that visitors get the most from their visits. No longer content to simply present information or things, we have to engage audiences with the collections, resources, programs, and the places themselves. Understanding how to transform our sites into centers of community engagement requires some soul-searching, strategic thinking and lots of trial by error until we get it right. Again, leaders who take risks, reap the rewards.

My point of reference has been profoundly shaped by Patterson Williams and Melora McDermott-Lewis’s ground-breaking work (1990) that resulted in approaches to making the Denver Art Museum (and by extension, many other museums) imaginative and playful for family audiences. Instead of offering ephemeral live programs, or relegating one space as a “children’s gallery,” the Denver team created activities on every floor to make the museum a good option for families whenever they visited. Today, there are more than 25 places at the Denver Art Museum where families can find more than 50 activities. These offerings range from quick riddle games to more in-depth backpack activities. While some activities are led by staff or volunteers, the vast majority are do-it-yourself. The key ingredient is freedom of choice. After more than a decade of research by leaders in the field (Falk, 2009; Falk & Dierking, 2002, 2000, 1992) we are catching onto the fact that “free-choice learning” turns ivory towers and dusty curiosity cabinets into thriving destinations. I wondered how visitor contact stations, or tents, or carts, or activity-filled backpacks could provide similar experiences in my work at an historical park.

My own experiences at the Autry National Center confirmed the power of free-choice learning. A visitor study at the Autry National Center, conducted by the Los Angeles marketing firm, John Morey and Associates (2005), revealed that 52% of those surveyed were visiting for the first time. The Autry staff hypothesized that every day the museum welcomed visitors who first had to find the museum, locate its entrance, and then confronted, or were confounded by, a dazzling array of objects, exhibitions, and programs. One third of the participants in the study were adults who visited with their children, begging those elusive and qualitative questions, what motivates families to visit? When should exposure begin? What form should it take? What would the audience need to feel comfortable and accepted at our site and make visits personally meaningful? How can we become meaningful to our audiences and how can we ensure that they see themselves reflected at our sites?

We still have some serious work to do if we want to be regarded as truly valued places within our communities. Since families (the vast majority of our summer visitors) tended to perceive some of our sites as either unfriendly or inappropriate for young children, we needed to break down the barriers associated with family visits. After trying a few family activities during their visits, adults were willing to gradually venture out to explore on their own, though sometimes with the help of activity packs, game boxes, audio tours, and printed family guides.

Arguably, the groundwork laid by educational leaders is partly responsible for the paradigm shift happening across the country. If we say that our sites are places for and
about interactive experiences and meaning-making, then we need to stress this. Those values should be mirrored in our organizational identities and actions. The Second Century Commission of the National Park Service (2010) and its more recent Call to Action (2011) challenge us because “learning through active participation is vastly more effective than simply living vicariously.” Interactivity is key. It provides that wonderful tension between fun and contemplation, between touching and no-touching, and between conversation and silence. Leaders know that interactivity should be, or will be, a core element of our institutions.

Resolve to Maintain a Visitor-Centered Focus

To engage audiences successfully and effectively, we have to do more than set goals and develop programs. We must communicate clearly that we are accessible, reliable, responsive, and relevant. By the same token, visitors must feel as welcome, in the same way we would welcome guests into our homes.

All across America, practitioners have identified specific target audiences—whether they are families, students and educators, teens or seniors—and have conducted extensive research to learn about audiences’ perceptions and experiences. To reach across generations, they learned to think about the kinds of experiences that visitors create and ways people learn.

To make ideas and places meaningful to the public, the key is to create the right approaches to interpretation that lead to engagement. To illustrate the approach, leaders could determine that certain principles guide the inquiry to craft experienced-based learning formats; for example, at some historical sites:

**Convergence**
The world comes together in (fill in the blank here—our galleries, our park, our historic site). This place reveals the interaction of people and cultures and the creation of new social and cultural formations through that interaction.

**Relevance**
One’s place in the world matters. How visitors interpret these experiences matters. It’s our task to help visitors understand how the future is shaped through the actions and creative dialogue of past and connections with the present.

**Respect**
Everyone has a voice and a story. Historic places, artifacts, and works of art, individually, and certainly when grouped, present opportunities for stories with respect for all visitors.

The Autry’s visitor surveys (Morey, 2005; Wolins, Ferraro, & Trainer, 2006) confirmed that audiences: (1) crave engagement, (2) desire a human connection, (3) are vocal about their learning preferences, and (4) want an active participatory experience. To be relevant and to thrive, I know that we must become accessible learning laboratories, places where individuals, families, and communities can connect to each other and to relevant issues of contemporary life.

When we think of our sites as learning laboratories, we are free to try different visitor-centered approaches, techniques, and strategies. We can systematically explore how visitors respond to them. With the help of renowned evaluator Johanna Jones (Korn & Associates, 2006), the Autry team found that nearly all museum visitors to a special
exhibition stepped inside an immersion environment, and most responded favorably to the experience, describing it as “memorable, social, and appealing.” Visitors told us that touching specially created artifact reproductions, using activity cards, and listening to the background audio as interpretive elements added to the realism and immersive feel of the space. Visitors who entered the space when it was staffed by docents and museum teachers added that this kind of mediation significantly enhanced their experience and helped them describe the exhibition’s content. Even when families were in the space on their own, they freely negotiated its rules, and spontaneously role-played, and even mimicked some of the audio track they were hearing. Along with lots of laughing, the data collectors heard exclamations of “sweet,” “cool,” and “touch this!” In fact, adults without children were just as likely to engage in the activities as were multigenerational groups.

Korn and Associates (2006) also discovered that while visitors mentioned that the exhibition reinforced their prior knowledge of the time period, most said they learned something new. They could describe what they were learning, and more importantly, these same visitors made personal connections with the stories found in the exhibition. I’m now reminded of this every day: supervisors and ranger have to work to create personal connections with the story. At the Autry, we learned that our visitors spoke of similarities between the era they encountered in the gallery and their contemporary lives, and with those who had ancestral connections to the time period. This was very telling because our visitors “got it.” They demonstrated that an immersion experience could lead them to connect the past with the present. They showed us how the museum’s objects and exhibition theme mattered to them. I now find myself shifting gears to think of historic parks and sites as giant immersion environments and challenge myself to re-invent approaches to interpretation re-focusing on learners and their experiences based on prior visitor studies.

I have come to believe that to create special destinations—places to go, or the place to go—we need to apply the pleasure principle. Theme parks have long recognized the importance of creating attractions with a range of activities beyond the viewing of things. Can we educate based on sound scholarship, while making our own substantive contributions to our fields, and be entertaining at the same time? Of course we can. Learning and fun are not mutually exclusive. Several well-documented studies (Borun, M., 2008; Dierking, L.D., Luke, J.L., Foat, K.A., & Adelman, L., 2001; Wolins, 1989, 1981) have described family visitors having fun, routinely showing off, acting up, pointing out, and taking turns, while performing as guides or teachers.

Lead On
Great sites assist in the construction of personal knowledge. As David Carr (2003) put it, “They invite the learner in and lead the learner on.” So it stands to reason that the hallmark of a great site is not what it represents, but how it interprets and educates what it represents, and helping visitors see why it matters. Our mandate is to carve the time and create the ways to achieve and evaluate meaning and relevance within the daily demands and constraints of our jobs. It is far too easy to lose sight of the core work that impacts visitors given the formidable operational and administrative tasks we perform. While challenging, it is not impossible. (In my first year, I reminded myself of this very often. I still question how we spend our time and work to peel away or change what distracts us in order to get back to, or adjust workloads that give us time to do the real work of interpretation and education.)
Much of today’s focus on education is on formal resources, like schools and classrooms, yet informal learning settings offer untapped potential for communicating social, cultural, and scientific information, correcting misconceptions and improving attitudes and cognitive skills (Gardner, 1991). Learning is voluntary and self-directed. It is driven by curiosity, discovery, free exploration, and the sharing of experiences with companions. Free-choice learning in its broadest sense is a by-product of the free interaction of leisure-oriented visitors and their surroundings. Where schools are linear and sequential, our sites offer constant choices where we can teach through apprenticeships, exchange meanings, tell stories, reflect, and experiment, all with powerful and original resources. Our sites immerse and envelope visitors with evidence of their culture, and of many cultures. We invite them to grasp pieces of their heritage, and to remember, imagine, and then re-imagine, re-order, re-tell and reflect.

Whereas in school, we were taught to sit still for hours each day, not to talk without permission, to listen to lectures, or read from a text and then fill in worksheets and demonstrate mastery through a battery of tests. By contrast, at our sites, visitors are confronted with experiences and opportunities to engage, move at their own pace and in their own way. If and when we raise questions that visitors can’t answer, we’re extending knowledge and giving new meaning to human experience, which is the truest definition of education (Gowin, 1987). The exception to this scenario is the all-too-common facilitated tour or talk, where the lecture mode still prevails. In the past 30 to 40 years, not much has changed in this arena, despite national attention through interpretive development programs, education committees, courses, webinars, conferences, and publications touting the application of learning theories and free-choice learning. The paradigm shift has to move from talking at visitors to teaching, sharing, and conversing with visitors. It’s our essential work to create opportunities for visitors to find meaning on their own and to evaluate whether, how, and under what conditions we’re doing this.

Our real challenge is to help visitors construct knowledge of themselves and of their lives as part of larger contexts. They enter our doors, step into our sites, log onto our websites, and download our apps. Through our programs, we can converse with them on many levels. And although there is little doubt that we’re the teachers and the leaders, we’re just as often the learners. We have so much learning yet to do, so let’s strive to become destinations for personal discovery and vow to assess it. Let’s study visitors to evaluate their experiences. Finally, let’s carve time for reflective practice, and reward innovation whenever and wherever we find it. We can make a difference.

Leadership comes from digging deep inside, believing in the power of our places to enrich and impact lives, and thinking strategically about meeting visitor needs. In the spirit of collegiality and trailblazing, I leave you with one more thought (a favorite quote, actually), courtesy of Peter Drucker, “The only way to predict the future is to create it” (Edersheim & Drucker, 2007).

Notes


APPENDIX
Manuscript Submission

Instructions to Authors

Purpose
The purposes of the Journal of Interpretation Research are to communicate original empirical research dealing with heritage interpretation and to provide a forum for scholarly discourse about issues facing the profession of interpretation. The Journal strives to link research with practice. The Journal of Interpretation Research is published by the National Association for Interpretation, the preeminent professional association representing the heritage interpretation profession.

General Information
The primary function of the Journal is to disseminate original empirical research regarding interpretation. However, the Journal of Interpretation Research takes a broad view of the field of interpretation and publishes manuscripts from a wide-range of academic disciplines. The primary criteria for deeming a manuscript appropriate for the Journal are whether it adds to the current state-of-knowledge for practitioners, researchers, academics, or administrators who work in the field of interpretation.

In recognition of how diverse the relevant literature is, the Journal will also publish reviews of recent books, government publications, original literature reviews, and bibliographies dealing with interpretation. Abstracts from dissertations, private consultant materials, and reports from public agencies will be published in the Journal in a section called “In Short: Reports and Reviews.” This section will also provide an outlet for summaries of research studies with limited scope. Interpretation research often consists of small “in-house” program evaluations and basic visitor studies. The purpose of this section is to communicate current research activities, allow readers to identify colleagues with similar interests, and provide practitioners and administrators with useful information and direction for conducting their own mini-research projects. Submissions for the “In Short: Reports and Reviews” section should be limited to 800 to 1,000 words and will be reviewed by the editor and two associate editors.

Additionally, the Journal will publish thought pieces that exhibit excellence and offer original or relevant philosophical discourse on the state of heritage interpretation. The “In My Opinion” section of the Journal encourages the development of the profession and the practice of interpretation by fostering
discussion and debate. Submissions for the “In My Opinion” section should be limited to 1,000 to 1,200 words and will be reviewed by the editor and two associate editors.

Research Manuscript Submission Guidelines
All research manuscripts will be reviewed anonymously by an associate editor and by at least two other reviewers. Based on the nature of the manuscript, special efforts will be made to identify well-qualified associate editors and reviewers to evaluate the manuscripts. From the recommendations of the associate editor, the editor will make the final decision of the manuscript’s disposition and communicate this information to the author.

Manuscripts
Manuscripts will be accepted with the understanding that their content is unpublished and not being submitted elsewhere for publication.

- All parts of the manuscript, including title page, abstract, tables, and legends, should be typed in 12-point font, and double-spaced on one side of 8.5” x 11” or A4 white paper.
- Margins should be 1” on all sides.
- Manuscript pages should be numbered consecutively in the top right corner.
- All papers must be submitted in English. Translations of papers previously published in other languages will be considered for publication, but the author must supply this information when the manuscript is submitted.
- Maximum length of manuscripts shall be 30 double-spaced pages (including all text, figures, tables, and citations). The editor will consider longer manuscripts on an individual basis.

Titles
Must be as brief as possible (six to 12 words). Authors should also supply a shortened version of the title, suitable for the running head, not exceeding 50 character spaces.

Affiliation
On the title page include full names of authors, academic, and/or other professional affiliations, and the complete mailing address of the author to whom proofs and correspondence should be sent. An e-mail address and phone and fax numbers should also be included. As all manuscripts will be reviewed anonymously; the name(s) of the author(s) should only appear on the title page.

Abstract
Each paper should be summarized in an abstract of no more than 150 words. The abstract will preface the paper and should be a comprehensive summary of the paper’s content, including the purpose or problem, methods, findings, and implications or applications. It should enable the reader to determine exactly what the paper is about and make an informed decision about whether to read the entire paper. Abbreviations and references to the text should be avoided. All abstracts shall be listed on the Journal of Interpretation Research Web site (www.interpnet.com/JIR).
Keywords
Authors must supply five to 10 key words or phrases that identify the most important subjects covered by the paper.

References and Citations
Include only references to books, articles, and bulletins actually cited in the text. All references must follow the Publication Manual of the American Psychological Association (APA), version 6.2. References in the text should cite the author’s last name, year of publication, and page (if appropriate). All references used in the text should appear at the end of the typed script in alphabetical order using APA version 6.2 style.

Examples of references:


Figures
All figures must be discussed in the text and numbered in order of mention. Each figure must be submitted as a print-ready digital file. Label each figure with article title, author’s name, and figure number by attaching a separate sheet of white paper to the back of each figure. Each figure should be provided with a brief, descriptive legend. All legends should be typed on a separate page at the end of the manuscript.

Tables
All tables must be discussed in the text and numbered in order of mention. Each table should have a brief descriptive title. Do not include explanatory material in the title: use footnotes keyed to the table with superscript lowercase letters. Place all footnotes to a table at the end of the table. Define all data in the column heads. Every table should be fully understandable without reference to the text. Type all tables on separate sheets; do not include them within the text.

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