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A Note from the Editor

This issue of the *Journal* continues to represent the wide diversity of what interpretation means, is, and does. From an article on an experimental model mixing entertainment into heritage programming to cognitive map theory applications for interpretation and place attachment, this issue of the *Journal* is sure to generate discussion. There is also an article returning to basic conceptions of interpretation in principle and in practice. The “In Short” section of the *Journal* also provides a glimpse of the state of research in interpretation using Australia as the benchmark.

As always, there is much to be learned from each submission in helping promote and grow the discipline of interpretation.

The field of interpretation today, whether from the perspective of a student at a university or a superintendent at a state or national park, is feeling the impacts of the current economic crisis. Historically, when budgets were tight, interpretation and other visitor information services were frequently the first to be reduced. This often translated into a reduction in staff or resources.

It has never been easy to justify what cannot be easily seen. Like it or not, if the grass is not cut, it is a result that has immediate visible impacts to the resource. When interpretation is missing, the results are often unseen and subtle. This has made the historic pattern of cuts and reductions predictable and for many difficult to argue against. This is the atmosphere in which interpreters are now facing major cuts and reductions and not just of staff but of programs. I have recently learned about entire summer seasons of programming being cut and of university majors being eradicated—all in the name of cost savings. It is a short-term solution to cut the grass at the expense of the long-term investment of fertilizing the soil.

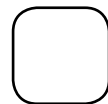
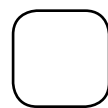
As I have said before, it is important that we continue to ask questions, to challenge, to try new perspectives and obtain a better way, a more resilient answer, or a more robust approach. It is up to us in the field of research to provide and promote the rigorous examination of what works, when, and for whom so that we can connect people more meaningfully to the resource. This is the heart of “research” and of providing “defensible interpretation.”

If we can’t defend and justify the investment in interpretation, then who can? And if we don’t do it, if we don’t demonstrate how to connect people to the resource in a

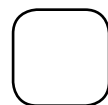
meaningful way, sooner than later there will be no resource to protect—no grass to cut, no position to defend.

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

—C



RESEARCH



From Principle to Practice

Four Conceptions of Interpretation

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Abstract

This multiple case study examined cultural interpretive programs for four different sets of goals or conceptions in a trickle-down effect from theory to practice. A proposed model, *Four Conceptions of Interpretation*, is based on foundational texts and empirical studies.

The four conceptions are (a) connecting visitors to resources, (b) conveying agency mission and influencing behavior, (c) encouraging environmental literacy, and (d) promoting tourism outcomes. The data were examined for the presence of several different goals for interpretive practice. The study found that conception one was represented in all programs. Limited evidence of conceptions two, three, and four were found in participant recall. Although articulated in texts and training materials, evidence of the other conceptions' goals were lacking from visitors' short-term recall. This finding suggests that the practice of interpretation at the examined sites focused on conveying the seminal goal of connecting visitors to heritage resources.

Keywords

interpretation, management goals, cultural resources, National Park Service, influencing behavior, environmental literacy, tourism

Introduction

Heritage interpretation takes place when someone with knowledge of nature, culture, or history shares it with another. Both a communication process and a field of its own, interpretation has broadened considerably since its inception around 1920 with Enos Mills' book *Adventures of a Nature Guide*. The naturalists and guides who began the practice of interpretation produced a record of their principles.

As more visitors sought out his special guiding-interpretation services, Mills analyzed what he was doing on these trips. He began to formulate standards for professional nature guides and taught other guides who had a strong interest in Nature how to get others excited about it. (Mills, 1920, p. ii-iii).

As the initial base of knowledge grew, the principles of interpretation were used to train the next generation of naturalists and guides (Brochu & Merriman, 2002).

Interpretation's growth process has been influenced by other fields and disciplines including recreation, federal and state resource management, formal and non-formal education, and the tourist sector. Scholars admit that interpretation is still undergoing change and development (Beck & Cable, 2002; Knapp & Benton, 2005; Larsen, 2002; Ward & Wilkinson, 2006). Among the trends affecting the interpretive field are the downsizing of government agencies and interpretive staffs, privatizing of services, increased use of volunteers, increased global tourism, and pressure toward revenue development and self-sufficiency (Merriman & Brochu, 2005). On both sides of the Atlantic, researchers have identified multiple uses for interpretation (Archer & Wearing, 2003; Knapp, 2007; Ward & Wilkinson, 2006; Uzzell, 1989). The field has reached a stage in its development where several varying goals exist. Interpretive staff seeks to connect visitors to resources, they may want to positively influence behavior toward fragile areas, they may convey environmental messages, and they may use tourism ideas to appeal to visitors' travel interests. How effective is the contemporary practice of interpretation at conveying such a wide variety of goals? The purpose of this study was to examine visitors' recollection of interpretive programs in *practice* for evidence of multiple goals from *principles* trickling down from the founders, contemporary managers, and interpreters alike.

Four Conceptions of Interpretation

The model used in this study defines a conception of interpretation as one or more outcomes associated with one of four major goals for interpretive programming. The assumption is made that a particular program may convey one or more conceptions. Foundational interpretive texts and empirical studies were grouped into four categories to illustrate the presence of different sets of goals for the field. If a text addressed more than one set of goals, it was placed into the conception category it most strongly described or the most progressive of the categories on a continuum from one to four. For example; Knudson, Cable, and Beck's *Interpretation of Cultural and Natural Resources* (2003) mentions goals in common with all four conceptions. Since the book contains an entire chapter about interpretation as a resource management tool to influence visitor behavior, the model placed the text under conception two—conveying mission and influencing behavior (see Table 1).

The model reflects the historical progression of four strands of goals within the field. Conception one began in the early 1900s, conception two in the 1950s, conception three in the late 1960s, and conception four in the 1980s. Conception one, connecting visitors to resources, is based on the seminal goal of interpretation developed from the practice of nature guiding. The primary goal is for interpreters to use their special knowledge of nature, culture, and history and their communication and artistic skill to reveal what is not readily apparent to peoples' emotion, intellect, and spirit.

Table 1

Foundational texts and empirical studies for the Four Conceptions of Interpretation model.

Conception	Foundational Texts	Empirical Studies
One: Connecting Visitors to Resources	Beck & Cable (2002) <i>Interpretation for the 21st Century</i> Mills, E. (1920). <i>Adventures of a nature guide</i> Tilden, F. (1957). <i>Interpreting our heritage</i>	Anderson, D. (2003) Falk, J. H. & Dierking, L. D. (1997) Knapp, D. & Benton, G. M. (2004) Knapp, D. & Yang, L. (2002) Povey, K. D. & Rios, J. (2003) Wells, M. (2000)
Two: Encouraging Environmental Literacy	Brown, W. E. (1971). <i>Islands of hope</i> Ham, S. (1992). <i>Environmental interpretation</i> Larsen, D. (Ed.). (2003). <i>Meaningful interpretation</i> Mackintosh, B. (1986). <i>Interpretation in the National Park Service</i> Sharpe, G. W. (1982). <i>Interpreting the Environment</i>	Ernst, J. (2005) Hwang, Y., Kim, S., & Jeng, J. (2000) Knapp, D. (1996) Knapp, D. (2000) Knapp, D. & Benton, G. M. (2005) Knapp, D. & Volk, T. (1997) Leeming, F. C., Dwyer, W. O. Porter, B. E. & Cobern, M. K. (1993) McKoeown-Ice, R. & Dendinger, R. (2000) O'Brien, J. P. & Pease, J. L. (2004)
Three: Influencing Visitor Behavior	Knudson, D. M., Cable, T. T., & Beck, L. (1999). <i>Interpretation of cultural and natural resources</i> Machlis, G. E. & Field, D. R. (1992). <i>On interpretation: Sociology for interpreters</i> Manfredo, M. J. (Ed.). (1992). <i>Influencing human behavior: Theory and application in recreation, tourism, and natural resources management</i> Manning, R. E. (1999). <i>Studies in outdoor Recreation</i> (2nd ed.). Ward, C. W. & Wilkinson, A. E. (2006). <i>Conducting meaningful interpretation</i>	Ballantyne, R., Packer, J., & Beckmann, E. (1997) Dawson, D. (2003) Lackey, B. K. & Ham, S. H. (2003) Morgan, M., Absher, J., & Whipple, R. (2003) Porter, A. L., & Howard, J. L. (2002). Wallace, G. N. & Gaudry, C. J. (2002). Ward, C. W. & Roggenbuck, J (2003) Wiles, R. & Hall, T. E. (2005).
Four: Promoting Tourism Outcomes	Brochu, L. & Merriman, T. (2002). <i>Personal interpretation</i> Brochu, L. & Merriman, T. (2006). <i>Certified interpretive guide training</i> Merriman, T. & Brochu, L. (2005). <i>Management of interpretive sites</i> Uzzell, D. L. (Ed.). (1989). <i>Heritage interpretation</i> [vol.1]	Archer, D. & Wearing, S. (2003) Carr, A. (2004). Deutschlander, S. & Miller, L. J. (2003) Strange, C. & Kempa, M. (2003) Tubb, K. N. (2003) Zeppel, H. (2002)

Conception two, conveying mission and influencing behavior, is based on sociological and psychological contributions to recreation resource management. The goals are for interpretation to carry a positive image of the agency to the public and to influence visitors' resource behavior. Conception three, encouraging environmental literacy, seeks to introduce people to ecological relationships and move them through levels of awareness, appreciation, understanding, ownership, and motivation to take responsible action to reduce human impacts on the environment (Knapp & Volk, 1997). The merits of separating environmental education and interpretation are numerous as are reasons for associating the two. The presence of the root word environment in the title of two foundational interpretive works (Ham, 1992; Sharpe, 1982) as well as several articles in the *Journal of Interpretation Research* (Archer & Wearing, 2003; Cable & Cadden, 2006; Ernst, 2007; Knapp, 2005; Turek, 2006) suggests that interpretive goals specifically associated with the environment belong in the model. Conception four, promoting tourism outcomes, is based upon the surge in interest in tourism from both public and private sectors and the necessity of including economic evaluation of interpretation (Carver, Basman, & Lee, 2003). The main goals under conception four are to use travel ideas to appeal to visitors' leisure interests and to promote spending as a means of improving the economic benefits of natural and cultural tourism. The model does not speak to the relative appropriateness of the four conceptions. It is a framework that categorizes and describes different goals for interpretation.

Four Conceptions of Interpretation:

1. Connecting visitors to resources.
2. Conveying agency mission and influencing behavior.
3. Encouraging environmental literacy.
4. Promoting tourism outcomes.

Literature Review

Conception One

The first conception of interpretation is drawn from the historical beginnings of the profession in the foundational works by Mills (1920) and Tilden (1957). Beck and Cable (2002) modernized Tilden's original six principles and added nine more. The authors defined interpretation as "an educational activity that aims to reveal meanings about our cultural and natural resources" (p. xi). The authors of subsequent foundational texts in interpretation often cite Tilden's principles (Beck & Cable, 2002; Ham, 1992; Knudson, Cable & Beck, 2003; Machlis & Field, 1992; Sharpe, 1976; Uzzell, 1989) and Tilden's definition of interpretation (Ham, 1992; Sharpe, 1976). According to the four conception model, conception one is grounded in program content and techniques aimed at connecting visitors with heritage resources. Empirical studies were also grouped into each of the four conceptions to illustrate the presence of four different goal sets.

Three areas of research placed into conception one are knowledge and short-term attention factors, successful techniques for interpretation, and long-term memory of programs. These variables were chosen as indicators of interpretation conveying the goal of connecting visitors to resources. The potential for interpretation to hold visitors' attention has been studied (Povey & Rios, 2002; Wells, 2000). Research examined attention variables contributing to working memory (Knapp & Yang, 2002)

and children's gain in knowledge (Tarlton & Ward, 2006). Successful techniques for interpretation have been explored (Davidson & Black, 2007; Knapp & Benton, 2004). A number of studies used long-term memory to assess visitors' interpretive experiences (Anderson, 2003; Falk & Dierking, 1997; Knapp, 2006; Knapp & Benton, 2005). The variables of knowledge, short-term attention factors, long-term memory, and techniques for interpretation have been identified with the first conception of interpretation, connecting visitors with resources.

Conception Two

Two goals are identified with the second conception of interpretation. First, agencies and organizations want to convey a positive image and mission to the public. Second, agencies want to influence visitor resource behavior in order to protect cultural and natural resources. Foundational sources of interpretation include Machlis (1992) and Knudson, Cable, and Beck (2003).

The introduction of resource management objectives into heritage interpretation was the result of applied recreation practice influencing leisure studies (Dawson, 2003). This influence began to happen when sociological research was institutionalized into the National Park Service (NPS) as part of their social science program. A sociological perspective views interpretation "primarily as the successful transmission of information to clientele groups" (Machlis & Field, 1992, p. 13). According to Manfredo (1992), "persuasive interventions such as interpretive programs and educational workshops are often effective in increasing knowledge, favorable attitudes, and positive behavioral intentions about rules, resource ecology, and resource protection in park settings" (p. 181). The use of sociology and social-psychology in the 1960s illustrates the boundary between conceptions one and two in the model.

In Knudson, Cable, and Beck (2003), interpretation was cited as a means to influence the visitor to cooperate with resource management. One of the stated objectives for interpretation was to affect the attitudes and behavior of the public in regard to resources. "It is cheaper to guide people than to arrest or deter them" (2003, p. 9). Conveying a positive understanding of the agency or organization's mission and influencing visitors' resource behavior characterizes the second conception of interpretation.

Empirical research into the effectiveness of interpretation to influence visitor behavior falls into the following three categories: cognitive change, affective change, and behavioral change. Knowledge retention and positive increases in knowledge have been found (Ballantyne, Packer, & Beckmann, 1997; Lackey & Ham, 2003; Wiles & Hall, 2005). Changes in affect resulting from resource-oriented interpretive programs have been examined (Hockett & Hall, 2007; Morgan, Absher, & Whipple, 2003; Porter & Howard, 2002; Wiles & Hall, 2005). Behavior change resulting from the use of interpretation to influence visitors has been investigated (Wallace & Gaudry, 2002; Ward & Roggenbuck, 2003). The variables examined in these research studies were associated with conception two, namely, conveying agency mission and influencing behavior.

Conception Three

Encouraging environmental literacy using heritage interpretive programs is illustrated by conception three. During the late 1960s, environmental interpretation sought to facilitate connections between visitor and resources with more emphasis on fostering

environmental literacy (Ham, 1992; Knapp & Volk, 1997). In the model, *literacy* was chosen to be a more inclusive term encompassing the concepts and themes from environmental education with the techniques and non-formal learning sites characteristic of environmental interpretation. The goal of encouraging environmental literacy seeks to move visitors through the stages of awareness, appreciation, knowledge, skill, and motivation resulting in environmentally responsible behavior (NAI, 2007, Retrieved from <http://www.definitionsproject.com/definitions/index.cfm> 04/25/07).

Several foundational works were identified with the third conception. Mackintosh (1986) provides an account of the origins and struggles surrounding the adoption of environmental interpretation into the National Park Service. Grant Sharpe (1976) and Sam Ham (1992) published foundational texts that included principles of how to interpret human impacts on the environment. An important feature of environmental interpretation is communicating technical knowledge to non-technical audiences (Ham, 1992; Sharpe, 1976). David Larsen's training manual for the NPS Interpretive Development Program (2003) features a collection of interpretive tools for practice and evaluation that include environmental stewardship as a desired outcome.

Empirical research into environmental goals for interpretation includes the following three areas: concepts and goals for environmental interpretation, cognitive and affective impacts, and short-term and long-term memory of programs. McKeown-Ice and Dendinger (2000) identified concepts from the social sciences that were prerequisites for understanding environmental issues. Knapp and Volk (1997) established a hierarchical framework of goals leading to environmental education for use in the planning and execution of environmental interpretive programs. Hwang, Kim, and Jeng (2002) studied attitude as an antecedent of responsible environmental behavior. In a review of three research studies examining the impact of interpretive programs, Knapp (1996) found increased awareness of science and ecology and immediate positive changes in knowledge, attitudes, and behavioral intent. Researchers examined cognitive and affective impacts from environmental interpretive programs (O'Brien & Pease, 2004; Ernst, 2005). Short-term and long-term memory associated with interpretive programs has been examined (Knapp, 2000; Knapp & Benton, 2005 & 2006). The variables examined in these research studies were associated with conception three, namely, encouraging environmental literacy.

Conception Four

Promoting tourism outcomes is identified as the fourth conception of interpretation. The addition of tourism as one of the goals for interpretation began to surface in the 1980s with the rise of global interest in travel and tourism for economic development. As with the goals of influencing visitor behavior and encouraging environmental literacy, the author asserts that tourism goals have filtered into the field of interpretation. Foundational sources for conception four were drawn from books published by NAI's InterPress, international conference proceedings on interpretation, and cultural tourism. The author conceived of conception four as more economically oriented than eco-tourism oriented based on the present state of interpretive research related to tourism.

Personal Interpretation (Brochu & Merriman, 2002) published by the NAI was based on three years of development of their certification program and imparts best practices from the history of the profession. The previous foundational authors Mills,

Table 2*Four conception model in narrative form.*

	One - Connecting visitors to resources	Two - Influencing visitor behavior	Three - Encouraging environmental lit.	Four - promoting tourism outcomes
<i>Terms/</i>	Understand	Conserve	Appreciate	Visit
<i>Concepts</i>	Appreciate	Protect	Aware/Know	Destination
	Knowledge	Preserve	Deplete	Travel
	Information	Keep	Drought	Gifts
	Imagination	Change/Stop	Famine	Time
	Visualize	Do/Do not	Natural Resource	Spend
	Picture	Public	Relationships	Buy
<i>Conceptual</i>	Experience culture	Attitude/Behavior	Culture & Nature	Economic
<i>Emphasis</i>	Intellectual	Local resource	Human impact	Market
	Emotional	Visitor activity	Scarcity/Ecology	Hospitality
	Physical	Agency mission	Social processes	Future plans
	Spiritual	Generations	Preservation	Local business
	Inspiration	Respect	Adaptation	Memories
<i>Additional</i>	Beauty/Wonder	Beliefs/Motives	Stewardship	Highway near
<i>terms and</i>	Awe/Meanings	Rules/Vandalism	Attitudes/Issues	Souvenir
<i>ideas</i>	Relate to/Empathy	Common sense	Problems/Science	Replica/Books
	Pay attention	Respect/Persuasion	Behavior back home	Camping

Tilden, Lewis, and Ham are cited by Brochu and Merriman. What has been added are the *beliefs* that interpretation must add value to achieving the mission of the organization and that interpretation is the most cost-efficient way to manage resources (p. ix). NAI has embraced a business model to attain a mixture of hospitality and interpretive storytelling (Brochu & Merriman, 2006). The NAI workbook used to train Certified Interpretive Guides uses the visitor experience model from *The Experience Economy* (Pine & Gilmore, 1999, p. 77). Merriman and Brochu's management text (2005) also refers to Pine and Gilmore's use of social marketing principles to demonstrate how interpretive connections can lead the visitor towards stewardship action (p. 35). Uzzell (1989) puts forth a typology of four primary uses for interpretation with the fourth being, "a value-added product of the tourism industry" (p. 2).

McKercher and du Cros (2002) view interpretation as a tool for sustainable cultural tourism. "If managers can control the message or presentation, they can also control the tourist and, in doing so, control the use of the asset" (p. 215). This stated goal appears to be similar to the goal of conception two, influencing visitor behavior. The difference between conception four and two is that tourism goals seek to influence visitors' economic behavior as opposed to their resource behavior. McKercher and du Cros include Ham's six principles for thematic interpretation (1992) in their text about cultural heritage management and tourism. This provides further evidence that the scholarly field of tourism views interpretation as a tool for attaining economic goals.

The majority of empirical research in tourism-related uses for heritage interpretation has been conducted outside of the United States. Three areas of scholarship include natural and cultural values, visitors' preconceptions and desires for native culture, and tourist satisfaction, knowledge, and attitude change. Carr (2004) examined interpretation at a New Zealand national park for evidence of visitors associating natural features with the cultural perspective of the predominant local Māori tribe. Strange and Kempa (2003) studied the phenomenon of dark tourism, the increasing popularity of visitation to former sites of punishment and incarceration. A similar study by Deutschlander and Miller (2003) examined the extent to which modes of interpretation at several indigenous sites across Canada strengthen stereotypes of the "noble savage" or gave voice to politically oppressed indigenous peoples at cultural sites (p. 27). Ham and Weiler examined quality of cruise-based interpretive guides in Alaska and the Galapagos Islands (2002) and dimensions of satisfaction for interpretive tourism experiences in the Panama Canal Watershed (2007). Two studies examined visitor satisfaction related to sustainable tourism (Tubb, 2003; Zeppel, 2002). Using interpretation to promote tourist outcomes characterizes the fourth conception of interpretation. Viewing resources as an economic asset is one aspect of this fourth conceptual category for heritage interpretation.

Method

The purpose of the study was to examine the practice of interpretation for evidence of principles trickling down from foundational texts and training materials. This type of study has not been attempted before in the field of interpretation. Three data sources were gathered: (a) programs, (b) on-site staff interviews, and (c) 30-day post-program visitor interviews. Qualitative research is designed to focus on the interpretive aspect of human experience (Chawla, 1998) and multiple case studies are considered more compelling and robust than a single case design (Yin, 2003). Therefore, three NPS units

were chosen for the study. The rationale for choosing cultural resource programs instead of natural resource programs was twofold. First, the author perceived natural resources as having more in common with the physical sciences and environmental topics than cultural resources. Looking for conservation and environmental goals in natural resource programs seemed to be begging the question. In order to test the universality of the four conception model, cultural resources at historic sites were chosen. Second, the author wanted to investigate whether indigenous cultural programs were using notions like *the ecological native* to convey environmental topics. Interpreters holding a broad view of environmental literacy would find cultural programs to be an appropriate vehicle for conveying topics associated with human interaction with the land. To test this premise, cultural sites were chosen.

This study utilized a research protocol whereby the interpretive program itself was initially recorded followed by an interview with the staff interpreter. This process was repeated with at least three different interpreters at each site. One month later, visitors on the programs were contacted and asked what they recalled in a general way and then were asked specifically about the four conceptions. In searching for evidence of different goals in interpretive programs, the program transcriptions themselves reveal the extent to which the agency has conveyed messages representing any of the conceptions. In an effort to gather data from both the agency and visitor sides of the interpretive experience, staff interview data and visitor interview data were collected in addition to program data. Triangulation of data sources is a means of reducing single researcher bias (Yin, 2003). Furthermore, three data sets allowed the comparison of staff and visitor responses to direct questions about the four conceptions.

The selected NPS units are from the Intermountain, Midwest, and Southeast NPS regions of the United States. All three sites interpret Native American culture and were visited during fall 2006. The sites are Bandelier National Monument in New Mexico, Fort Smith National Historic site in Arkansas, and Ocmulgee National Monument in Georgia.

Regularly scheduled programs for the general public were observed, audio taped, and transcribed. Subjects consisted of interpretive staff that consented to be observed and interviewed. A total of 14 staff participated in interviews. Staff interviews were conducted on-site and audio taped *after* each program with the respective interpreter to reduce learning effect. Subjects also included park visitors over the age of 18 years old attending the programs. Visitor interviews were conducted by telephone approximately one month after the program and were audio taped. A total of 50 visitors participated in post-program interviews.

The use of memory as an indicator of non-formal learning experiences has been examined (Anderson, 2003; Benton, 2008; Falk & Dierking, 1997; Knapp, 2006, 2000, & 1996; Knapp & Benton, 2006 & 2004; Knapp & Yang, 2002; Rennie, Feher, Dierking, & Falk, 2003). Visitor memories of interpretive programs are a key mechanism in the meaning they create from the experience. "Visitors 'make meaning' through a constant process of remembering and connecting" (Silverman, 1995, p. 162). In the study it was assumed that visitor short-term memory provides an accurate indication of the interpretive messages conveyed during the program. If visitors recalled program content identified with the goals associated with a particular conception, then it was concluded that the program conveyed messages representing that conception (see Table 2).

The interview instrument for both sets of participants used a semi-structured and

open-ended format. All participants were encouraged to elaborate on any part of the program they desired. Staff was asked for cultural topics conveyed to audiences followed by more specific probes into the four conception areas. The staff interview followed the following framework:

- What aspects of Native American culture do you try to impart to your audiences?
- Describe one or more prominent beliefs/norms practiced by this culture.
- What do you perceive visitors are getting from the experience?
- Do you try to influence visitor behavior and if so, how? [conception two]
- Did you consider there to be any environmental aspects to your program? [conception three]
- Do you try to promote visitor spending on items related to the program? [conception four]

It is important to anticipate a difference in knowledge between staff and visitors. A trained interpreter may conceive of the word *environmental* in more specific terms than a visitor on vacation. Visitors were asked what they recalled from the program in general followed by more specific probes into each of the four conception areas using broad terms such as “environmental” for conception three. Visitor interview questions followed the following framework:

- What aspects of Native American culture do you recall?
- How would you describe their culture/society?
- Do you recall any beliefs, customs, or rituals they held/practiced?
- Do you recall anything regarding visitor behavior during the program? [conception two]
- Was the word environment or anything environmental featured in the program? [conception three]
- Were you encouraged to purchase anything during the program? [conception four]

Since this was the first time a trickle-down effect had been described in the field of interpretation, asking visitors for recall of impressions and knowledge appeared to be a favorable method for gathering data. The unobtrusive narratives garnered from visitors were analyzed according to the framework presented by the four conception model.

All programs and interviews were transcribed verbatim and subjected to open and axial coding using NVivo qualitative coding software (QSR, 2002). Open coding breaks the data into discrete parts to allow close examination for similarities and differences. Axial coding is a process of bringing the established categories of concepts back together and linking them to subcategories (Strauss & Corbin, 1998). Member checks with staff were used as a means for confirming the findings (Miles & Huberman, 1994). Once the data were organized into the four conceptions, several interesting patterns were revealed.

Table 3*Visitor responses for each of the four conceptions.*

Conception	Bandelier NM	Fort Smith NHS	Ocmulgee NM	Total	Percent
One-Connect to resources	(n=21)	(n=18)	(n=11)	50	100
• Content	18	18	9	45	90%
• Technique	18	9	8	35	70%
Two-Influence behavior/mission					
• Verbal	6	12	8	26	52%
Three-Encourage env. literacy					
• Landscape	11	13	11	35	70%
• Human Impact	13	9	2	24	48%
• Social	17	15	6	38	76%
Four-Promote tourism outcomes					
• Destinations	12	16	7	35	70%
• Spending- Yes	4/12	3/16	1/5	8/33	24%
• Spending- No	8/12	13/16	4/5	25/33	76%

Results

Program and interview transcripts were analyzed for terms and concepts identified with each of the four conceptions. The presence of visitor recall data for all four conceptions would support the premise that interpretive programs were effective in conveying four different goal sets. However, the study found that only conception one, connecting visitors to resources, was strongly represented by visitor recall data at all three sites.

Conception One: Connecting Visitors to Resources

Conception one, connecting visitors to natural and cultural resources, was posited as the seminal goal of interpretation from the field's inception. "Connecting visitors to the resources has been a goal of interpretive efforts since Enos Mills began leading groups up Longs Peak" (Ward & Wilkinson, 2006, p. 16). Analysis indicates that interpretive programs at all three NPS sites represented data identified as belonging to conception one. Two subcategories of data in conception one were identified, namely, content and technique (see Table 3). Visitors recalled being brought closer to the resource through the subject matter or content of the program. Visitors also recalled actual communication techniques used by the interpreters such as stories, anecdotes, and imagery. Thirty-three of the 50 visitors interviewed used words to describe intellectual and emotional connections to the resources. Some examples are provided below.

I was kind of *imagining* what it would have been like in the harsh conditions and the elements and you are dependent upon whether or not there was enough rain for food.

To go with the guide as opposed to just looking at it. To get more of a *connection* because that is the *fascinating* part is the connection to the group of people that came before us.

The fact that the interpreter was a descendant of some of the people involved in the program. It gave it sort of an immediate *connection to that history* in that regard. That was pretty darn *neat*.

And she just kind of made it where you could *picture in your mind* as she kind of went over the Trail of Tears, you could just kind of *see it in your mind*. She made it very interesting.

I thought it was the best tour I have ever been on in a park. He was talking about mound builders and the three different cultural groups that was there. And the way he tied things in to now and *integrated it into life* and compared it to what people do now. It made it *extremely real*.

You actually will go into that mound, you walk away actually feeling this *marvelous connection* to the people there. It was a revelation to be perfectly frank.

Visitor interview data for conception one contained intellectual and emotional words describing connection to resources. At Bandelier, visitors recalled how the interpreters

helped them “understand,” “visualize,” and “imagine” what life was like for the previous inhabitants in the canyon. At Fort Smith, visitors used the words “sympathize,” “interaction,” and “relate” to describe their connection to the site. The presence of Native American interpreters at both sites helped visitors identify even more closely with the cultures being depicted. Visitors at Ocmulgee National Monument used words like “relevancy,” “integrate,” and “enjoyment” to describe their connection to the mounds and society of ancient people depicted. The examples of visitor data above contain references to principles consistent with conception one in the model.

Conception Two: Conveying Agency Mission and Influencing Behavior

Conception two has two goals: to convey the agency’s mission and to influence visitor behavior toward park resources. Interpretation and education programs are used by recreation providers for the indirect management of conflict and impacts to resources (Manning, 1999; Moore & Driver, 2005). Evidence of conception two was less strongly detected in the data than conception one. The NPS mission includes the conservation of resources and enjoyment for present and future generations. Twenty-seven of 50 visitors used the terms preservation or conservation during post-program interviews. Below are examples of visitor data associated with the conception two goal of portraying the mission of the NPS.

Conveying agency mission

Well, yeah, because *they are trying to preserve* the ruins close to how they have been. And one of the ways they are, the *restoration* part of it; *people* get in there and vandalize and I think that is terrible. They go up and they re-soot the roofs you go and see and that would be kind of a restoration.

The national park is supposed to conserve and preserve the environment of any park. *It also allows public access and the two don’t always meet.* So public access doesn’t always help preserve.

It is easier to get the national monument establishment, easier rather than getting it signed by Congress and it has to go through the House and the Senate to be approved for a national park and by the President. And so that is why it is a national monument because they wanted to *preserve the area* so that *heritage* continues and it’s not destroyed by whatever.

Of course the entire site there was preservation oriented. *Preservation of history in terms of not only physical history but cultural history.* The *stories* of the place were being preserved not just the physical remains of things.

I think it was *fostering an appreciation* of a portion of *Native American culture* that I certainly was not aware of in that part of the country. And that there is an effort to preserve it so that current generations, *future generations,* will gain information about it.

The second main goal of conception two is to influence visitor resource behavior. Visitor recollection for the *verbal data* category included rules, warnings, stories of

problems, and examples of what to do and what not to do (see Table 3). At Banderier, visitor data contained some evidence that common park rules were conveyed during the main loop program. Visitor responses included knowing that pieces of pottery were to remain covered and undamaged (off-trail), seeing other visitors being asked not to sit on dwelling walls, hearing requests not to deface anything or pick anything up, and reminders to stay on the path/trail. One visitor recalled the management objective that artifacts were to be left on the ground for future archeological research.

Influencing visitor behavior

Other than, you know, *I remember them saying, "don't leave your trash behind."* Sort of thing and don't, *"stay on the path; you don't walk over to where you might disturb some of the things that haven't been excavated to this point."* They can tell where there's other, that they haven't excavated yet and *they don't want people picking things up* and moving 'em around or destroying them by walking on 'em.

Another visitor spoke about the interactive nature of the cultural resources at Banderier.

But as for our human environment, that is why they probably make us *stay on the path*. I thought it was great that they let us do as much climbing around and we did do because *so many places are roped off* and that is another reason why I think Banderier is so delightful is that *you can really climb in all those little holes* and the experience. Just kind of spend a second or two *feeling like this is how, somebody lived here*. So often you are just looking in at a roped off area.

Visitor data obtained at Fort Smith and Ocmulgee did not present strong evidence of the use of persuasive messages in interpretive programs. Although 11 visitors at Fort Smith and 12 visitors at Ocmulgee made references to visitor behavior, they did not identify the interpretive program as the primary source of the message. Suggested rules and regulations are presented in brochures, on signs, and by volunteers and roving rangers throughout the sites examined.

The set of goals identified with conception two are conveying agency mission and influencing visitor behavior. It was expected that sites would incorporate persuasive messages into program content to help attain agency goals. Program transcriptions and staff interviews yielded moderate to low amounts of verbal messages conveying basic rules and expectations for visitor behavior. The visitor data analyzed provided little evidence of park use of influential techniques for managing visitor behavior in interpretive programs.

Conception Three: Encouraging Environmental Literacy

According to the four conception model, the goal of environmental literacy is to move visitors through a progression of levels from appreciating and understanding ecological relationships to perceiving human involvement and impacts to moving towards attitudes and behavior that are environmentally responsible (Brown, 1971; Ham, 1992; Knapp & Volk, 1997; McKeown-Ice & Dendinger, 2000). Conception three data was divided into three sub-categories: landscape, human impact, and social (see Table 3). Landscape data

represents visitor recall where the word “environment” was associated with features of the natural environment. Description of the landscape was determined to be less associated with the goal of environmental literacy than the data placed in the other two categories. Human impact data includes human interactions with the environment and problems such as subsistence, resource depletion, and adaptation by a single group of people. Social data includes different groups and their interaction with the environment that often included natural resource conflict and social processes such as society, religion, jurisprudence, migration, and war.

Human impacts

At Bandelier, visitor interview data contained terms and concepts that described adverse human impacts on the environment as a result of human occupation and historic activity. The need for food, shelter, and warmth by the cultures portrayed during the main loop program eventually led to resource loss and migration away from the immediate area.

I found it amazing that, you know *we're concerned about using our resources. And we think that is just a modern problem.* But back then, that is one reason why they think *they left was because they had stayed there and used up much of the firewood and hunted the animals* and so they didn't have enough resources left and they had to move on.

The traditional view about the weather conditions and the *drought forcing the people away from that area.*

The determination that they have made is that over the years *they had over-farmed.* And this eventually *forced them out.* And I believe too water, the *search for water.*

At Fort Smith, visitors did not recall human impact topics from the programs. Six visitors expressed viewpoints that incorporated an environmental perspective but these were not associated with program recall. The data analyzed for Ocmulgee National Monument produced a similar result. At Ocmulgee, there was no visitor recollection of human impact topics made during the programs. Overall, there was limited data indicating human impact environmental messages conveyed during interpretive programs.

Social

During coding and analysis, the researcher discovered statements that described human interaction with the environment and natural resources in terms of social groups and processes. This stood in contrast to the more narrow description of specific problems of human survival experienced by individuals or a single group. Below are examples of visitor data from the social environment subcategory.

They were *community like.* They tended to be organized to some degree to *build the dwellings and to do the agriculture, corn.*

Where they lived, *everybody was close to one another*. It's not like so much like today where people kind of go about and do their own thing. *They needed each other to survive*. I mean everybody was *dependent on one another*.

That they were very *integrated with the land*. And I think that *helped the future of their lifestyle*. They worked for the land and maintaining the land and using the land. I think that is a very important aspect of their lives. It was *more than a place to live*.

They tried to keep peace from outlaws and stuff barging in on hunting lands.

Growing up you sort of assume the country was empty and was discovered and you know, there is sort of a *God-given right for the white man to have this territory* and yet that is really not the true history. It was perfectly *well settled and intact cultures* and just because they were different cultures. Well I guess *whoever has the bigger guns wins, huh?*

I really believe that the *people then respected the land a lot more*. I think everybody respected and *lived with the land more comfortably than they do now*. And tied it into their being. I mean they made it part of their *religion* and their life.

Well it does reflect the *society* as to how the group worked together and functioned together through them having a *central meeting place*.

Visitor data presented above contained topics identified with environmental literacy that involved social processes. At Bandelier, these included the concepts of community, interdependence, and cultural adaptations such as ceremony. At Fort Smith, visitors recalled several groups involved in the historic competition for lands in the Indian Territory, including the five tribes involved in the Trail of Tears in addition to outlaws, homesteaders, and lawmen. Ocmulgee visitors recalled the ceremonial mounds and communal organization of ancient Native peoples. The data presented suggests that interpretive programs conveyed some messages associated with conception three.

Conception Four: Promoting Tourism Outcomes

The goal of conception four is to promote factors related to tourism. Data placed into conception four included terms associated with tourism including travel, destinations, and spending money. Visitors were asked if they recalled travel topics from the programs. Upon analysis, conception four data was organized into two sub-categories, namely, destinations and spending money. A further breakdown of visitor responses to the direct question about interpreters promoting spending is illustrated in Table 3.

Destinations

Interpreters frequently asked visitors where they were visiting from and occasionally used travel terms during the program itself. One visitor recalled: "I know that he did ask where people were from. I believe it was him that had asked where we were traveling from" (10/06/06). Three other visitors indicated that contact with other people in

various commercial locations led them to visit the site. The locations were a bar, a hotel front desk, and a bed and breakfast. However, these data were not related to the use of interpretive programs to convey tourism outcomes. In effect, tourism led to attendance at an interpretive program, and not vice versa. At Fort Smith, visitors recalled where other visitors were from. "One of the others was from Kansas, he had an interest in Civil War history" (10/26/06). Another visitor spoke about spreading site information by word-of-mouth. "The way I look at it, the visitors are the ones who publicize a lot of the Indian stuff. They kind of get more people interested in coming to the museum later on" (10/20/06). At Ocmulgee, similar results were found. Three visitors recalled the name of the state where other visitors were from. Analysis indicates that programs contain a small amount of travel and destination ideas originating primarily from introductions made at the beginning of the program.

Spending Money

Spending money and economic benefits to the park were identified with tourism outcomes in the literature review and the four conception model. At all three sites, the visitor center lobby contained a bookstore/gift shop in close proximity to the information desk staffed by interpreters and other staff. At Bandelier, visitors gave responses regarding the spending of money. One visitor said the merchandise in the bookstore was not "junk type souvenirs or information. It was pretty classy and to me academic" (11/19/06). Another visitor said, "If they know of something of some good, particularly material about either the history or the region or whatever, I don't consider it inappropriate at all" (11/20/06). Two visitors recalled that the interpreter mentioned the bookstore and another visitor recalled the mention of a local author. "Somebody had a book that they wrote and they had it there at, they talked about somebody who had written a book about the area" (11/16/06). During the four programs observed at Bandelier, visitors recalled the promotion of spending money only in terms of books related to the program being made available for purchase. At Fort Smith, only one visitor recalled the ranger mentioning a book during the program and the visitor was not sure whether it was a book for sale or just a book in general. During Ocmulgee's Stone Age to Space Age programs, visitor interview data indicated that *programs* featured no promotion of spending. Visitors to Fort Smith and Ocmulgee did not recall the promotion of spending during the interpretive programs.

Three sources of data were collected in this study and were used to improve the validity of the study. Although the emphasis has been on visitor recall, the staff interview data regarding the promotion of spending in conception four deserves mention. Towards the end of the interview, each interpreter was asked whether they promoted spending on items related to the program and whether they thought it was appropriate for interpreters to encourage the purchase of items in the bookstore. Below are nine of 14 staff responses to the specific question associated with conception four, promoting tourism outcomes through spending.

I'm a terrible promoter. I just don't want to create the impression that part of my job is to get them to leave money here. I want them to concentrate on Indian life here in the old days.

No, I've never promoted people buying stuff in terms of, if they haven't thought of it already. If they have thought of it, I'll tell them all kinds of good places that they can go to find what they want.

I guess I got the idea that somehow going over the whole program and making connections and stuff with them, and then *going into almost a sales pitch just seems to cheapen the event*. So I try not to go into it. I don't want to cheapen; I want to leave it up to them.

If they ask, a good book, I will definitely recommend.

It doesn't seem to be part of my job.

As far as I can tell *we do not say that in the interpretive programs*. We don't highlight that anyway.

And so *I don't promote it*. I don't think anybody here promotes the gift store.

No, only when they ask. I don't think it is our role to be commercial.

Selling items. *Here, I don't push the museum shop that much. I just don't see myself as a salesman out here*. I'm more roving interpreting. I am glad to help people if they go in there and ask for help. Enjoy selling books. We've got some new books. But at Hay House, where we are more dependent on the income, we do try to wrap people.

Conception four is the promotion of tourism outcomes that would bring economic benefits to the park. Two sub-categories of conception four data have been analyzed: destinations and spending money. The data indicate that travel and destination ideas were conveyed during interpretive programs, usually during introductions. Data analysis also indicates a small amount of spending promoted during programs regarding the titles of books related to topics presented during the programs. Visitors did not recall much promotion of spending. Staff data indicates a strong reluctance towards the promotion of spending during programs. The majority of interpreters indicated that they would assist visitors with questions about purchases when the visitor initiated the discussion.

Discussion

The study examined interpretive programs for evidence of four different goal sets represented by a theoretical framework titled: four conceptions of interpretation. The four conceptions are: (a) connecting visitors to resources, (b) conveying agency mission and influencing visitor behavior, (c) encouraging environmental literacy, and (d) promoting tourism outcomes. The author posits that conception one, connecting visitors to resources, has been the seminal goal of interpretation since the field's inception. Conceptions two, three, and four are more recent additions to the purpose and use of interpretation.

Through the use of a literature review, the four conception model, and the data

gathered and analyzed here, it has been argued that the field of interpretation has evolved as it attempted to integrate the additional goals represented by conceptions two, three, and four into its seminal goal of connecting visitors to resources. The data presented suggests that interpretive programs at all three NPS sites conveyed messages identified as belonging to conception one.

Conception Two: Conveying Agency Mission and Influencing Behavior

“The second major purpose and value of interpretation is meeting management goals and objectives” (Ward & Wilkinson, 2006, p. 23). The study found moderate amounts of explicit mention of the NPS mission of preservation and conservation of cultural and natural resources. A second goal of conception two to influence visitor behavior was not as strongly detected in visitor recall. Why was there a marked absence of data associated with conception two, influencing visitor behavior, found by the study? Staff interview responses offer several reasons: (a) rules were the only type of influence on behavior, (b) resources were protected by cases, barriers, and other structures and did not require additional messages, (c) rules were presented in print and in other locations, (d) rules were used more often for school groups, and (e) staff waited until an infraction was observed before mentioning rules. Regardless of the setting, staff at all three sites confirmed the finding that interpretive programs were not often used as a vehicle for influencing visitor behavior beyond simple reinforcement of rules and reminders of expectations for compliance. The data presented suggests that printed material, signs, and non-formal contacts are used with more frequency than interpretive programs to inform and reinforce appropriate visitor behavior messages.

Conception Three: Encouraging Environmental Literacy

The study expected to find evidence of the goal of environmental literacy because environmental interpretation has been a goal in the National Park Service since the 1970s (Mackintosh, 1986). The results indicated that only Bandelier visitors recalled human impact messages. One explanation is that Bandelier had the most extensive natural resources associated with its cultural resources. A *narrow* view of environmental literacy emphasizes science and ecology (Stables & Bishop, 2001). A monument such as Bandelier that portrays culture in the context of abundant and pristine natural resources would likely convey environmental topics such as human impact messages. Fort Smith and Ocmulgee were situated within an urban setting with portions of many programs held indoors. A second explanation is that Bandelier management placed greater emphasis on the goal of conception three compared with the other two sites. However, there was not a uniform consensus among Bandelier staff as to the prominence of an environmental literacy goal in public programs. A third explanation is that the depiction of indigenous culture at Bandelier included human-land interrelationships that to a modern audience contained terms associated with environmental literacy. Adherence to a narrow view of environmental literacy in the context of the sites examined provides some plausible reasons for the findings in the study.

However, embracing a broad or strong view of environmental literacy adds important considerations into the interpretation of the findings. Data identified as environmental-social was found at all three sites. Social data represents a broad view of environmental literacy that included power struggles, group conflict, and social processes. McKeown-Ice & Dendinger (2000) identified 63 concepts from the social

sciences that are prerequisites for understanding environmental issues. The concepts included: the importance of societies' relationships with natural resources, different groups' attitudes towards using resources, and variations in cultural views of human beings as "part of" or being "separate" from the environment (p. 12-17). Stables and Bishop (2001) distinguished weak and strong notions of environmental literacy. A weak or narrow conception of environmental literacy relies upon a scientific perspective. A strong or broad conception of environmental literacy incorporates the humanities and acknowledges that environment is a social and a cultural construct.

While environmental education sometimes strives for multidisciplinary, a strong conception of environmental literacy will acknowledge and encourage multiple views of the environment, and may prove the best vehicle for developing understanding of the complex historical relatedness of many environmental issues. (p. 95)

This study found that staff interpreted the environment for visitors using story, beliefs, and artwork. The use of a strong or broad conception of environmental literacy at all three sites may partially explain the lack of human impact messages overall.

Conception Four: Promoting Tourism Outcomes

Travel and destination ideas were used during programs as an introductory technique. However, interpreters did not consider promoting economic outcomes as a goal associated with interpretation. Conception four represents the newest goal set to the field of interpretation. The foundational sources of goals associated with conception four were found in the NAI use of marketing ideas with empirical sources taken the field of cultural heritage tourism. Obviously, economically oriented tourism ideas as conceived in the model have not been utilized by interpreters at the NPS cultural sites examined.

Conclusion

When the four conception model was applied to interpretive practice at three cultural sites, the programs did not contain equal representation of all four conceptions. Conception one, connection to resources, was represented strongly in participant recall. Conceptions two, three, and four were not as strongly represented. The principles articulated in foundational texts and training materials for influencing behavior and conveying agency mission, encouraging environmental literacy, and promoting tourism outcomes became diluted or were absent. This finding suggests that the *practice* of interpretation at the sites examined does not manifest its various *principles* with as much vigor as scholarship would suggest. The detection of concepts trickling down from academia, certification training, and resource management into interpretive practice at selected NPS cultural sites are a difficult phenomenon to detect. Perhaps the real value of the four conception model is not as a predictor of visitor recall but rather for its potential to help the field understand interpretation's continuing evolution as it integrates new management goals from within and without.

This research study has explored two areas of change within the field of interpretation. Both areas hold opportunities for growth. First, interpretation is being stretched in terms of the number and type of goals it is being expected to convey and attain. This appears to be a definitional issue. If the overarching goal of interpretation

is connecting visitors to resources, then the additional goals of conveying mission and influencing behavior, encouraging environmental literacy, and attaining economic outcomes could be more clearly organized and articulated. Further research into identifying and assessing different mixtures of goal sets would help interpreters, resource managers, and trainers prioritize their relative importance at each site. Second, the evolving body of interpretive principles professed on paper is more difficult to detect in practice. This appears to be an integration issue. The particular context of resources at each site appears to be a determining factor in the use of regulatory messages in interpretive programs as a supplement to signage, barriers, and other management techniques. Interpretive trainers and managers may find it more practical to selectively integrate narrow/weak and broad/strong views of environmental literacy as needed based on resources and management goals. A narrow, science-based view could shape objectives for natural resources programs when deemed most appropriate for the target audience. Likewise, a strong or broad view of environmental literacy that uses literature, film, and art to present multiple social and cultural perspectives may be implemented when deemed more appropriate. Finally, the institutional journey of interpretive goals from principle to practice and back suggests that research continue to examine the visitor's perspective of the interpretive experience. Scholars, managers, and staff interpreters may possess extensive understanding of the various goals for interpretation. However, it is the visitor who we hope will change their behavior by supporting the park and its mission, will practice conservation and economic behavior at the site, and engage in environmentally literate behavior back at home and in the community. Continued research into the visitor experience may provide additional evidence that well-intended organizational goals are being received by the audience for whom the sites were set aside in the first place.

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Living Heritage

An Experimental Model Mixing Heritage and Entertainment

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The threshold between academic values and entertainment poses a dilemma for museum and historical-heritage site managers. When traditionalists hold sway, clutching to the high standards of decorum and dignity, this is a non-issue; entertainment has no place in the world of serious museum exhibition and historical interpretation. However, when the public enters the equation, the thing itself on display in a room full of other objects is often not enough to keep the public engaged (and visiting). The real issue is not so much the tension between traditionalists maintaining standards and the dignity of the institution facing off with other museum operators looking to reinvent and invigorate the discipline. The issue edges toward the bottom line: keeping the institution financially viable and healthy.

From the best-endowed institutions to the least, operators cannot avoid visitor demands (and expectations) for entertainment. In a crass sense, it is not so much giving the public what they want as it is seeing how much and how far the institution can deliver on what the public wants.

Edson and Dean (1996) have reported six commonsense notions as to what motivates the public to engage in leisure activities such as visiting museums, and trying to recaptured what they forgot in eighth grade is not on the list. In a sweeping generalization, the public expects some tolerable stuffiness, but the great mass of visitors do not want to receive a lecture; they want to experience the museum or historical-heritage site on their own terms, on their own time, with an experience rooted in authenticity (Timothy and Boyd, 2003, p. 240-243; see also, Cameron & Gatewood, 2000).

In answer to the increasing demands to attract visitors, three of the best-known (and visited) historical sites in the nation have learned the value of mixing entertainment values into their sites:

- Colonial Williamsburg (the granddaddy of American heritage sites) has inserted the outdoor drama “Revolutionary City” into its offerings. In its latest corporate report, attendance and revenues jumped a significant five percent since the historically context/costumed live-action drama was introduced (Colonial Williamsburg, 2007).
- At Mount Vernon, the Ladies Association bit the bullet and agreed to allow several acres of sacred Washingtonian land to accommodate a high-tech visitor center (www.mountvernon.org/pressroom). The new space leans heavily on providing entertainment, particularly the artificial snow falling in the theatre presenting Washington’s classic victory at Trenton. According to an informal estimate, attendance has jumped five-fold since the opening of the new visitor center (Saxe, 2007).
- Henry Ford’s fabulous museum also features buggy and Model-T rides, old-fashion baseball games, and Imax theatre experiences (see, Upward, 1979; Hardin, Pretzer, & Steele, 1999), all designed to provide entertainment values in the effort to maximize the visitor’s experience as well as keeping maintaining visitor interest and attendance (Saxe, 2004).

Bowing to the need to diversify and popularize a museum’s collection throughout the nation, museums regularly feature visually stunning multimedia exhibits, engaging lighting, real-life sound effects, and costumed historical character interpreters. Within these more popular approaches, “living history” (Robertshaw, 2006) models center on first-person applications of costumed characters presenting or recreating events and activities from the past. Adding to the commercial look of today’s heritage venues, even the smallest venues feature the ubiquitous niche gift-shop and most others offer themed eating areas/restaurants, piped-in historical music, and more. Such transitions from old-school heritage venues signal that museums have moved decidedly into the tourist-entertainment field where professional planners work to design venues and programs to compete for visitor’s attention and discretionary income. In sum, museums and history-heritage sites must address market or commercial concerns with as much attention, if not more, than is expended on traditional collection operations.

While nothing has changed the curator’s mission to interpret, preserve, and protect collections, high-tech multimedia exhibits are now standard in the industry. And the degree to which commercial factors are applied, the only limits on expansion are budget resources, not intellectual resistance to change. Still, beyond modernized exhibits and the marvelous work being done to bring museums and historical-heritage sites to the public via websites (that capitalized on the seemingly limitless presentations of digital-virtual applications), museums and historical-heritage sites have yet to formally embrace what might be one of their most popular and highly effective addition to on-going programs: the living heritage presentation.

Loosely defined as a scripted play with or without music, the living heritage model features scripted dialogue presented by costumed historical interpreters. Prentice (2006) included theatrical presentations in his typology of heritage attractions as a legitimate subject for emergent research. The staged living heritage presentation is theatrically based (applying techniques and values of theatre/acting) and is centered on historical characters or themes associated with the museum/historical-heritage site.

The living heritage presentation differs from typical historical interpretation offered by costumed/non-costumed characters in either first or third person, such as the miller at Old Sturbridge Village explaining how grain was milled, or the blacksmith at Colonial Williamsburg hammering iron pieces into horseshoes or the park ranger at Gettysburg detailing Picket's Charge.

While similar to Colonial Williamsburg's "Revolutionary City" concept (a "street drama" presented onsite within and amid visitors weaving scripted action and words with improvisation), the living heritage model is presented with the audience as the "fourth wall," that is, the scripted words and action are not necessarily interactive or dependent upon visitor reaction/interaction, but presented as a "moment in time" like a standard theatrical presentation with a beginning, segmented or continuous scenes, and conclusion. In contrast to typical theatrical presentations, the living heritage model is presented by trained (and theatrically talented) historical interpreters acting/playing roles in costume and in historical context. Again, unlike the Revolutionary City model that unfolds on the streets of Colonial Williamsburg, the living heritage presentation may or may not be staged onsite at the historical-heritage site.

Building upon the early experiences of Smithsonian Institution researchers who reconstructed Duke Ellington's "lost musical" *Beggar's Holiday* (Bowers, 1997), the model presented here expands the Smithsonian's generic concept of "living history," renames it "living heritage" and constructed it as model for heritage venues to produce as supplement to educational outreach programs.

Capitalizing on public interest in heritage outside of schools (see Rosenzweig & Thelen, 1998) and the need to find ways to make museums and history-heritage sites relevant to visitors (Woods, 1990), this article presents the living heritage model as a viable addition to ongoing museums and history-heritage venue programs on two levels: first, to enhance collections, venue mission, build public relations, and increase venue visibility; and second, to inspire, instill, and educate the public on things past.

A working "living heritage" model consists of ten basic protocols and three considerations. Basic Elements:

- Establish a creative team (producer/director/staff)
- Find or create a scripted play/presentation connected to venue theme/mission/place/persona/event/object(s)
- Apply staging that allows visitors to be in close proximity to action (preferably three-quarters thrust/surround)
- Set staging (direction) for theatrical effect
- Costume characters in period or representative clothing
- Provide minimal set and staging (as required)
- Use authentic or representative props (historical objects)
- Recruit trained and talented actors-interpreters (paid or unpaid)
- Prepare program booklet/handout with historical notes
- Allow for assessment measures

Additional Considerations:

- Teachers, schools, students, and educational standards
- Controversial ideas, programs, objects, individuals, and messages
- Complimentary collateral programs

In presenting this model for reader consideration, I will describe and provide a rationale for each element, descriptions of our three treatments/examples (outlining how these projects were accomplished), and suggestions on how museums and history-heritage venues might apply this model for domestic use.

Establish the Creative Team

The “play” may be “the thing,” but the creative team is the first essential ingredient for a living heritage event. Venue operators may select the play, establish script parameters, and determine budget and other elements, but it is the creative team who must execute the plan. The size and scope of the project or the production values sought (or achieved) do not need to replicate a Broadway show; visitors can and will accept and appreciate programs relative to the institutional context and community standards.

Whatever the scale and quality of the project as set by human resources, script, set, costumes, and budget, visitors are generally willing to accept less polish if the living heritage is presented with conviction, determination, and spirit. In gauging its resources, creative teams need to cultivate projects that can deliver modest objectives on limited means as well as grand ideas with large budgets.

In this early phase of production, venue mission will set production goals (overarching-long term outcomes) and objectives (short-term, immediate outcomes). In collateral terms, goals and objectives are like climate (conditions over the long-term) and weather (day to day conditions). While educational outreach is a primary mission for museums and history-heritage sites, the living heritage offering need not be tied directly to public education concerns (educational standards). However, education staff should be cognizant of prevailing curricular standards for social studies and history and account for and apply those that may be matched to the production. More on this important issue is presented in the school section below.

Scripted Play

The scripted play is central to the living heritage model. While standard interpretation is designed to engage visitors in a dialogue where acting and improvisation are mixed, the living heritage presentation pulls visitors into the past with the age-old theatrical device of inviting visitors to suspend thoughts of the reality of the here and now to cross into the land of imagination that allows visitors to conjure up a past place and time. Once whisked into the past, the theatrical experience is most effective when the production relates to visitors, invoking mental and emotional connections (see Howell, 1999; Tilden, 1977).

There are, of course, many excellent first-person interpretations, such as Bill Barker at Colonial Williamsburg who assumes the persona of Thomas Jefferson with a marvelous authenticity that delights and astonishes visitors. Barker's Jefferson, however, requires training, talents, memory, and a commitment to the craft that few are able to attain and sustain. It is not that costs and resources limit such first-person interpretations; it is that the individuals who possess the look, knowledge, memory, voice, sense of timing,

improvisation skills, charm, and discipline required to achieve the level of such work are so rare, that it is not practical for most venue operators to cultivate this approach.

The scripted live-action play is preferred in this model as it resolves many issues. First, the actual words delivered are or can be determined in advance. The venue knows or decides exactly what should be said and how. The vetting of a script in advance of presentation allows venue producers to target and tailor presentations for visitors, to depict certain individuals and scenes, to invoke particular dispositions, to present particular content, and to provide other elements in a controlled and precise manner. The scripted play is not much different from standard exhibition displays that are, in effect, “scripted” by curators to form.

Second, while a certain amount of improvisation and audience reaction can be factored into the presentation, this model relies on actor-interpreters remaining faithful to the script. This convention promotes and ensures a known (and approved) standard of quality. That is, while every live performance is unique and each audience reaction may vary, with a scripted play, the same “moment in time” can be repeated with a measured consistency as often as desired.

Third, while the content of the presentation may still create problems that venue operators must resolve, staying faithful to an approved script reduces or eliminates complaints that improvised comments may engender.

Fourth, the scripted play can be presented with or without music (as a musical with characters singing or as a play with music underscoring the action).

Fifth, depending upon ambition and resources, venue operators may opt to present three variations of the scripted play: (1) select a commercially available play obtained by paying royalties or fee for use; (2) draft an original in-house script; or (3) commission a work. Each option has its advantages and disadvantages.

The royalty play is a complete package and perhaps, given the expense of fees, the most expensive to stage. Venue operators review and select plays according to their needs, pay the royalty of fee, then cast, stage, and mount the production. Plays can be selected to meet the general needs of the venue eliminating the creative process. Royalty plays may also come with a track record that suggests to venue operators what visitors may expect.

As a negative, unless the content or subject of the royalty play is about or directly connected to the venue, its collections, place, or its mission, visitors may not receive the project as expected. In addition, given the costs of paying royalties, venue operators may need to charge higher admissions to cover expenses, if the event is not fully funded.

Another variation of the scripted play is for venue operators to create their own play from scratch or adapt another idea or play or project that exists in the public domain. The first advantage is cost. Unlike the royalty play, which charges fees dependent upon size and nature of theatre (or venue), use of non-paid, paid or professional union actors, and admission charge, the in-house script incurs no royalties. Another advantage is that the in-house script can be specifically targeted to feature the venue, its collections, selected events, individuals, and objects, among other desired local or regional elements.

The negative on in-house scripts is that unless crafted with a theatrical flair in line with standard theatrical works, the script and performed program can be feeble, inane, and ineffective. That said, visitors may be willing to accept sophomoric and otherwise substandard scripts that specifically target venue objects, events, and persons if, as suggested above, the program contains other key ingredients: that it features authentic

costumes, props, representative sets, and talented actor-interpreters, and is presented with spirit (and humor).

The third variation on the scripted play is to commission a play (an original or adaptation). Two immediate advantages are (1) to assure a targeted-localized message (like in-house plays) and (2) to own the product to reuse as needed or lease to others (like royalty plays). Certainly, writing a targeted play can be a daunting task for venues without theatrical human resources or required operational funds, donors, or grants; however, for those willing to absorb author costs, the commission play provides an excellent alternative to royalty plays.

Sixth (and finally), to best represent the institution and to reflect honor on its reputation and dignity, the scripted play must be centered on true events, persons, and things that are presented and portrayed with as much authenticity and accuracy as is possible (see Lubar & Kendrick, 2001).

However, for theatrical effect, in order to fill in gaps, move the action, focus on certain themes, create drama and humor, and/or construct a story-line, it may be necessary to invent characters, dialogue, and situations that are not in the historical record. If such inventions are necessary, rather than generating complete fabrications, it is preferred to make composite characters from historical persons and/or to use applications of reasonable generalizations. Whenever such conventions are used, using the program booklet and/or the website, it will be necessary to explain the situation by separating what can be verified from that which is suggested, inferred, imagined, and even reasoned from facts.

Proximity to Action

The operation theory that prevails is that the closer the visitor is to the action, the deeper and richer the experience. As much as hearing the action, visitors need to see the facial expressions, the emotion, to feel moment with the actors as it unfolds. The technique applied is known as the “fourth wall”: the audience is in the space but the actors are not aware of their presence. The actors pretend that the visitors are not there and the visitors act as if they are invisible to the actors.

Breaking the “fourth wall” occurs when the actor steps out of his role in recognition of the visitor (looks at, speaks, or otherwise connects with the visitor). Certainly, within the script of the play, visitors will accept that an actor addresses them with a monologue or comment; however, to preserve the piece all interaction should be within the context of the script and the moment presented.

In live theatre, anything can happen; an actor may sneeze, a visitor may sneeze, a cell-phone might ring, a baby may cry, or a costume may malfunction. Whatever the instance, the fourth wall may be breached. In one famous episode, in the musical “My Fair Lady,” Rex Harrison’s wig was lifted off his head by a rising fly. Ever the actor, Mr. Harrison pressed on. For the audience, whose initial reaction was to gasp at the unfamiliar sight of a bald Rex Harrison, a tittering of laughter soon grew into a five-minute explosion of laughing out loud, to which Mr. Harrison heartily joined in chorus. The scene continued only after Mr. Harrison’s wig was lower back to the stage, recovered, and replaced with all the dignity this great actor could muster.

Not discounting for the inevitable awkward situations that live theatre invites, the maintenance of the fourth wall is probably the most important factor in the success of living heritage. The point is to bring visitors to the past and keep them there. While an

audience may excuse the air conditioner blowing, the view overlooking the parking lot, and the child in the carriage, they will not excuse actor-interpreters who cannot stay in character. Since proximity to the action is optimal for living heritage, the more exposed the actor is, the more he or she must work to maintain the fourth wall.

Caveats to proximity staging are large-scale spectacles or plays presented on a large stage or setting. In this case, the enormity of the presentation is the desired effect. In such cases, outdoor/indoor spectacle-plays that involve large casts, elaborate sets (like whole houses), and special features such as wagons pulled by horses, fire, gun play, and stage combat do not rely on proximity to achieve objectives. Such exciting programs are not included in this research.

Theatrical Staging

I hesitate to use the term “professional” because I do not wish to alienate venue operators or unnecessarily discourage creative teams from contemplating living heritage projects and programs. High-quality living heritage program can be achieved on a modest budget and certainly production values will vary depending upon the availability, application, and talents of actors, directors, designers, costumers, and other program staff. Naturally, museum and history-heritage operators can hire consultants and agencies who are skilled at packaging professional living heritage events. In such cases, venue operators do not need to consult the research presented here. Rather, this research is directed at those museum and history-heritage operators to consider living heritage as a viable and doable addition to ongoing outreach and education programs as in-house projects. In fact, visitors may just as readily accept homegrown-targeted programs with high production values as they would glitzy staged versions.

What is important in the staging is that theatrical values be applied to enhance the visitor experience. For example, actors need to move in context with the character portrayed, speak clearly, use conventional voice and body mannerisms, remain in character, and apply standard acting rules (such as not wandering in the space, not standing in front of another actor who is speaking, not turning your backside to the audience as you speak, and, of course, playing the part as practiced, etc). To accomplish their roles, actors must have the careful eye of a director who has the vision of the piece in mind and who works to keep that vision on track and consistent.

It is the director’s job to set the scene and tone of the piece, to move the action along, to create moments in the piece that foster particular effects, to invoke certain feelings, to teach certain lessons, and to pose certain questions. While everyone enjoys an entertaining play, effective theatre is not so much telling visitors what to think as it is to provide visitors with something to think about. Directors envision the piece as a whole, from actors to sets to costumes to sound and lighting to staging to whatever else is required, to move the message of the piece. Experienced directors know how to do these things; however, willing amateurs with creative minds can learn to do these things. For homegrown living heritage projects, the important thing is to imagine the project; the next step is to make it happen.

Costumed Characters

As the list of important musts grows, perhaps the single most effective element in living heritage is to costume characters in authentic period clothing. Failing outfitting actors in appropriate/authentic period dress, the next best thing is to put actors in clothing representative of the time and place (see Roth, 1998).

Looking the part is more than half the challenge for first-person interpretation. As much as costumes separate the actor from the present, giving him or her a sense of being in the past, costumed actors invite visitors into the past, raising anticipations, adding excitement and accomplishing an important first objective: helping visitors suspend their imaginations. That done, visitors can concentrate on the play/action.

The problem with costumes, particularly period costumes, centers on expense and availability. Not only is it a challenge to find (borrow, rent, or build) costumes, you need to get the period “right,” and the costumes need to fit the actors, wear well, and be maintained and stored. For homegrown/low-budget programs, renting or borrowing is an attractive option. Actors who own their own costumes, however, may cover this expense.

As with all entertainment projects, compromises on authenticities are often essential. For the purists, if necessary, there must be willingness to move forward with costumes that are less than perfect or at best merely representative. At end, the play in its dialogue and action is more “the thing” than the theatrical elements that are applied to enhance the experience. The best of all worlds is that costumes, props, sets, lighting, sound, and other theatrical elements match the play. There is no real fixed rule on what production elements should be compromised, but getting the costumes as authentic as possible is a high priority.

Minimal Set and Staging

In our living heritage model, elaborate sets are not necessary and, in fact, may consume too many resources (time, energy, and costs) and thus inhibit the successful project. Museums and history-heritage sites often have areas suitable for theatre (and many have theatres); however, a traditional stage is not necessary.

At the outset of planning, identifying a usable space (in close proximity to visitors) to accommodate the action, actors, technical needs, and security is a must, but to provide the greatest flexibility and least disruption for other operations and programs of the venue, the bare stage is all that is necessary. Because visitors can easily be brought into the program by talented and energetic costumed characters, rather than expensive sets, it is best to put energy and resources into other production elements.

As with sets, simple staging is also an optimal choice. If the living heritage program ranges from 15 to 30 minutes (for a short program) to one and a half to two hours (for a more complete program), simplicity helps focus the piece on the actors, action, and message. Complex sets, staging, and scripts are best reserved for commercial theatre.

Authentic / Representative Props

Adopting the less-is-more theory, the most cost-effective production element is the use of authentic and/or authentic-looking props. Once visitors witness characters appearing in costume, they will expect and accept simple props that add tremendous production values.

If actual items or authentic reproductions cannot be secured or drawn from venue stocks or collections, inexpensive and suitable representative objects may be purchased or constructed. One important rule of thumb is that it is better to have a functional prop (that represents the period) than to use props that might detract from the play. Remember, whatever is brought on the stage or space remains on the stage until it is removed and must be accounted for in the production. For example, your Daniel Boone might look great with that six-foot Brown Bess, but once the action starts you have to account for the gun's presence.

Props range from personal items that actors carry or pick up on stage (a bag, hat, or book) to sit-upons (chairs, tables, stools, and the ubiquitous box). As with staging, simplicity should be sought.

Trained and Talented Actor-Interpreters

The living heritage program depends on competent and talented actors. More than authentic costumes, useful props, and even a quality script and clever set (which all add production values), unless the actors can “sell” the show, the experience may not be worth the effort. The most vexing problem for producers is perhaps deciding just who will perform the program, how to cast the show, and whether or not to pay actors. Experienced, trained, professional actors bring terrific acting values to the project, but such actors also carry salaries and require that other demands be met. Professional actors work on a tight time frame (which is a positive). That is, as an efficiency issue, they require less practice and the show may go to production much quicker. However, you cannot expect that they will bring historical knowledge/background to the work and with a short rehearsal period, time may not permit much investment in filling in the blanks in their historical knowledge.

On the other hand, staff interpreters may have strong history backgrounds and perhaps be wonderful third-person interpreters and even be great first-person costumed characters working one on one with small groups, but putting them on stage as actors is another thing. One answer is that unless hiring professional actors, producers need to cultivate a small clutch of talented local actors who possess a strong interest in history (or at least the willingness to become historically invested in the piece). Being mindful that actors are just as much a target of the treatment as visitors, producers can “teach” the history to the actors through their participation in the production. That is, the piece should be conceived as a learn-by-doing activity. As such, producers should consider “teaching” the history behind the piece through indirect means—a concept that is consistent with institutional policies that center the exhibition less on didactic pedagogy and more on indirect instruction that permits visitors to discover the learning.

Program Booklet / Handout with Historical Notes

On one hand, whatever production values have been sacrificed to produce the play, they may be recovered with explanations, caveats, and production and historical notes carefully selected for publication. On the other hand, the program booklet should be considered as an essential part of the play itself, as a continuation of the program, as the part of the program that nails (and reinforces) the play’s message or intent.

There are two levels of living heritage treatment: (1) the production as viewed by visitors; and (2) the production as a reflection of the viewed production. The first yields an immediate level of understanding that may be deep, rich, and satisfying (and entertaining). However, since the play and actors—not the visitors—determine the choices made in this treatment, the visitor may not feel much of a participant, and the play’s moment(s) will fade considerably after treatment and ultimately may not be placed in long-term memory. In the second treatment (the reading), the visitor determines the choices made. The first choice is to keep the booklet; the second choice is to read it.

If the production inspires, raises questions, and places interest on the subject, setting, characters, objects, and other production elements, the program booklet will be an important first resource for visitors. If true, the production team needs to anticipate not

only visitor's immediate reactions, but also visitors' long-term reactions. Biographies of characters are useful and often welcome, interesting notes on props used and the historical setting in general should be included. Also contexts, settings, and questions might be raised and also various perspectives might be presented.

While such things add value to the project, for the general audience, the one thing the booklet should avoid is looking or reading like a textbook. Explanations, biographies, statements, and other bits of information should be contained in a paragraph or two, not pages. Editors need to conceive the booklet just as producers plan the program (treatment), as a unified whole with specific roles. The production provides the entertainment and "hook" for the history-heritage experience, the reading provides the necessary follow-up that should answer as many questions as it raises; that should inspires visitors to learn more.

Assessment Measures

Living heritage treatments have several layers of assessment. First, the overall assessment of the program as a whole, essentially answering two questions: (1) Was the project worth the effort? and (2) Should the project (or programs like it) be continued? Other layers of formal assessments include (but are not limited to):

- Production team
- Play/production
- Script
- Actors' individual performances
- Production elements (space, set, props, lighting, sound, etc.)
- Production staff
- Auditions/actor acquisition
- Rehearsal and production preparations
- Program booklet
- Targeted audience
- Attendance to education standards (as applicable)
- Costs-benefits
- Play/piece as embedded within the venue's overall programming and operation

As suggested by Soren (2002), while data on these elements can be obtained through qualitative (case studies and subjective perspectives etc.) and quantitative methods (surveys and visitor statistics etc.), such formal assessments are more useful for boardroom decision makers than the actor-interpreter team. In addition, formal assessment should be conducted by those independent of the living heritage project. For the actor-interpreters, the best, first, and perhaps most useful barometer of program success is the tandem of attendance and visitor reaction (informal feedback during and immediately after the performance and informal/formal [written] feedback after).

Informal reaction as received and gathered by the living heritage team, however, is transitory, scattered, and idiosyncratic and must be collected, organized, documented, and reported (to decision makers).

Additional Considerations

Teachers, Schools, Students, Curricular Issues, and Education Standards

It is, of course, important that museums and history-heritage sites have an established educational outreach program and the living heritage project should be considered part of that ongoing outreach. Embedded with educational outreach is the need to address teachers, students, and schools. In the United States, the connection between schools, museums, and history-heritage sites are not formally established, as is found in Great Britain.

In Britain, where a national curriculum governs all schooling, museums and history-heritage site managers work in close collaboration with educators. Unfortunately, in the United States, educational policy makers are not expected to consult with or consider the needs and programs of institutions outside schools. While formal established relationships are not routine, many museums and history-heritage sites do act cooperatively with individual schools and teachers. To improve relations and promote contacts, museums, and history-heritage site operators can help schools (and themselves) by investing some time exploring local, state, and national educational standards. In addition, they should learn what the standards are and understand how administrators, teachers, parents, and students use standards in schools.

Nearly all states conduct some testing programs, however, these testing programs focus on math, reading, and in some cases science has been added. In most states, history (and the social studies writ large) while taught, is not assessed. Unfortunately, the lack of testing manifests a disconnect between what is taught and what is tested. That is, because math and reading are tested (and promoted by the Federal “No Child Left Behind” law (Whitson, 2004), understandably, with accountability measures in place, teachers spend more time and effort teaching and having students practice the skills and knowledge necessary to score well on standardize tests. For other subjects like history, other social studies (geography, economics, and civics), fine arts, computer science, family and consumer science (home economics), foreign languages, and other school offerings, the picture is not as rosy.

The paradox is apparent; history is not treated as a premier subject in schools (see Wineburg, 2001). This phenomenon has an adverse effect on museums and history-heritage sites (particularly where teachers and schools are concerned). The result is that schools are less willing to promote routine and annual field trips and subsequently, attendance suffers. To address this issue, history-heritage operators should find ways to make their sites relevant to teachers, children, and families. The living heritage project is an ideal method to foster interest in history-heritage, to promote the institution, as well as to spread goodwill and boost attendance.

While the living heritage model can be produced independently of schools, paying attention to educational standards and reaching out to schools and teachers is a simple addition to operational plans. Venue operators can do much to promote living heritage programs by targeting schools in program advertisements, by creating curricular

supplements in hardcopy and online, and by providing web-based programs and other inducements that build a synergy that can prove extremely effective for schools and the program host.

Controversy

From the Smithsonian *Enola Gay* exhibition to slave auctions at Colonial Williamsburg, for museum and history-heritage operators there is no shortage of cutting-edge projects that quickly turn to controversy, retreat, embarrassment, and scandal (see Boswell & Evans, 2005; Dubin, 1999; Henderson & Kaeppler, 1997; Linenthal & Engelhardt, 1996; Wallace, 1996;). Living heritage projects offer no special insulation from trouble. However, like all venue programs the observation of good taste and sensibility may permit certain boundaries to be approached, but not crossed (see Edson & Dean, 1996; Lord & Lord, 2002; Lowenthal, 1995; Timothy & Boyd, 2003; Trouillot, 1995).

However applied, regardless if planners intend a bold or benign program, planners should vet the project, presentation, and script for potential issues, problems, and controversies and suitably stand prepared to answer tough questions as well as to address the concerns of unconvinced and perhaps hostile visitors (as individuals and members of ad hoc or established groups). At its heart, living heritage programs should be designed to feature some interesting heritage topic, era, idea, place, individual, group, or other element of the museum or history-heritage site.

As an operational definition it is important to note that heritage is an active phenomenon with two stages: (1) the recovery of something left to us from the past, and (2) our decision to do something about it (options include: to ignore, reject, or destroy it and/or to embrace, restore, and preserve it for others). As such, controversy is not something we necessarily and deliberately seek, but it is something that can and does evolve from even the most benign topics and may be objected to from unknown quarters.

Collateral Complimentary Programs

As suggested above, the living history model should be connected to the venue's mission and perhaps be part of a series of integrated on-going programs that are either special or static exhibitions. At the least, the venue's website should support the effort with materials and tools that complement the production. With creativity as guide, minimally, the website should feature interactive elements that engage visitors of all ages with engaging visuals, virtual exercises, and user-friendly digital resources that can serve as either introductory or supplementary information for the event. To save resources, the website may substitute for the program booklet.

Summary

The living heritage model is portable and may be replicated by venues of all sizes and budgets. The model may also be scaled to match venue space requirements as well as be adjusted to available human, tangible, and financial resources.

Led by Colonial Williamsburg, Mount Vernon, Old Sturbridge Village, and other history-heritage sites, the museum, history-heritage industry is poised to fully embrace the opportunities and potentials that scripted entertainment projects hold for their institutions. The living heritage model is one example of what might be done to instill and invigorate historical interest among the general public.

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Interpretation and Place Attachment

Implications for Cognitive Map Theory

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Abstract

Place attachment is a common expression used by individuals to identify with natural settings. Although resource meanings are hard for some people to describe, intangible values can play an important role in site visitation. The purpose of this study was to measure the effect of interpretation on place attachment; a relationship that has been speculated, but not tested. A questionnaire was administered to nearly 200 visitors who attended a wild cave tour at a state park in mid-Missouri. Results indicated that the naturalist-led program was successful, but the place attachment scores were similar before and after the tour. However, visitors who attended cave tours frequently scored higher on place attachment than first-timers. Results of this study are discussed in relation to cognitive map theory.

Keywords

interpretation, place attachment, cognitive map theory, cave tours, state parks, evaluation

Introduction

According to Knudson, Cable, and Beck (2003), one purpose of interpretation is to help visitors develop a sense of place. These authors believe that emotional attachments to natural and cultural resources are meaningful for participants to understand the character or essence (*Genius loci*) of a given site. Since many individuals cannot translate “the technical and often complex language of the environment” without some assistance (Risk, 1982, p. 195), resource agencies usually offer interpretive programs and services to enrich visitor experiences (Knudson et al., 2003).

Cognitive map theory is one way to explain how people obtain information, divide the stimuli into simplified units, and organize it in relation to past experiences (Kaplan, 1973). Site familiarity allows cognitive structures become inter-connected via intricate

pathways, hence the “map” connotation (Kaplan, 1976). Perhaps Tilden (1977) had sense of place in mind when he said that developing the “big” picture was more important for presentations than those which included a lot of factual information. Later, Hammitt (1981) suggested a linkage between interpretation and cognitive map theory.

Although the demand for interpretation is strong (Knapp & Yang, 2002), the expectations and outcomes of informal education are poorly understood. For example, education can be an activity, motivation, or benefit—depending on how it is phrased. Learning is a priority for many Americans (Roggenbuck, Loomis & Dagastino, 1990), but education is only one of several reasons for attending interpretive programs (Absher & Graefe, 1997). In some cases, audiences value recreation more than education and think that learning is important for others, but not themselves (Morgan & Hodgkinson, 1999). According to Pine and Gilmore (1999), today’s marketplace is moving toward an experience-based economy, including, but not limited to, education. Since visitors tend to seek outlets for pleasure during leisure, Knudson et al. (2003) said that interpretation is part of recreational experiences. Instead of a conflict, education can be combined with fun. One way to achieve this goal is through outdoor recreation programming.

Several studies have indicated that naturalist-led activities can promote short-term changes in visitors (Wiles & Hall, 2005; Morgan, Absher, & Whipple, 2003; Sieg, Roggenbuck, & Bobinski, 1988). However, the underlying purpose of many interpretive programs is to solve management problems, rather than addressing themes such as environmental awareness, sensitivity, and resource stewardship (Roggenbuck et al., 1990). One important issue in modern society is the lack of connectedness between people and outdoor settings (Louv, 2005).

Although Wilson (1986) believes that humans have a genetic predisposition toward nature, Louv (2005) suggests that many people, especially children, have either lost their emotional attachment or it has not been developed properly. Since Louv believes that place bonding is unlikely to occur at home or in traditional classrooms, naturalists are uniquely qualified to address a contemporary issue. Do visitors develop an emotional attachment to resources after exposure to interpretive programs, or is this a case of wishful thinking? What is the effect of naturalist-led programs? How are these concepts measured? What are some managerial implications of place attachment? This study seeks to address these questions.

Literature Review

If the features or attributes of a location are outstanding, then the site might acquire protected status (parks, forests, refuges, etc.). This decision is based on inclusion criteria developed by government agencies or private organizations, often influenced by public input. Therefore, resource designations are socially constructed. In other words, spaces become places when individuals consider them to be special (Tuan, 1977). Sites having state or national significance often reflect broad-based themes such as nature, culture, or history. Although marketing strategies can stimulate public awareness, many of these settings are able to attract visitors based on their titles alone, since official recognition conveys a sense of importance. Site names can strengthen the connection between people and places (Williams & Stewart, 1998). In fact, Morgan (2006) suggested that park names containing descriptive information about on-site resources might influence visitation, especially for newcomers.

According to Larsen (2002), place meanings can be grouped into two categories:

ascribed and inherent. Ascribed meanings are culturally determined values that are based on subjective reasoning. Inherent meanings, in contrast, are possessed by the resources and reveal truth, spanning both time and culture. Other authors believe that all values are socially constructed (Greider & Garkovich, 1994). Although the origins of place meanings may differ, any area can be special—not just sites under government control. Local and privately owned areas may not be meaningful for the masses, but these recreational assets can be important for those living nearby (Schroeder, 2002). It may consist of nothing more than a fond memory (e.g., a childhood fishing hole). Intangible values comprise the intellectual, psychological, emotional, spiritual, cultural, and/or creative aspects of human existence and well-being (Putney, 2003). This description of place is in contrast with other ideas, such as commodity values favored by most resource professionals (Williams, Patterson, Roggenbuck, & Watson, 1992).

Some managers have been slow to recognize the non-material (intangible) benefits of natural resources (Williams & Vaske, 2003). Recreationally speaking, the value of outdoor settings has been viewed merely as inputs to explain visitor behavior (Peterson, Stynes, Rosenthal, & Dwyer, 1985). Jacob and Schreyer (1980) were among the first authors to examine resource meanings in a leisure context. The recent emphasis on social values within ecosystem management has been largely responsible for this paradigm shift (Williams & Stewart, 1998; Smaldone, Harris, Sanyal, & Lind, 2005). Re-thinking the utilitarian value system has provided researchers in various disciplines with an opportunity to study place-based meanings and concepts (Goldman, Chen, & Larsen, 2001; Williams et al., 1992; Kyle, Graefe, Manning, & Bacon, 2004). Since a variety of approaches are used to measure place attachment, the definitions and explanations for this construct are somewhat inconsistent (Giuliani & Feldman, 1993; Brown & Perkins, 1992). Despite this variation, most researchers tend to agree that places can have personal and socially constructed meanings (Low & Altman, 1992; Relph, 1976). Aside from other meanings and values, places may also provide identity for individuals (Korpela, 1989), groups (Lee, 1972), or society (Wellman & Probst, 2004).

Sense of place is a holistic term that describes human connections to outdoor settings (Tuan, 1974). As such, it represents a collection of intangible values, such as those relating to the physical environment, human behaviors, and social / psychological processes (Farnum, Hall, & Kruger, 2005). Place attachment is another expression often used by individuals to convey an, “emotional, cognitive, symbolic, or spiritual response to a particular physical surrounding or environment” (Smaldone et al., 2005, p. 91). Some resource meanings may increase due to familiarity (Eisenhauer, Krannich, & Blahna, 2000; Moore & Graefe, 1994; Williams et al., 1992), but other authors contend that attachments can be formed immediately (Schroeder, 2002; McCool & Martin, 1994). Although site visitation is desirable, it may not be necessary because some individuals are able to bond with nature using technological advances, such as virtual reality (Levi & Kocher, 1999).

Several authors contend that place attachment has two components, identity and dependence (Williams et al., 1992; Williams & Vaske, 2003; Jorgensen & Stedman, 2001). Place identity is thought to be an emotional and symbolic attachment to natural resources (Williams & Patterson, 1999), which may be linked with factors such as: self-identity (Proshansky, Fabian, & Kaminoff, 1983); self-esteem (Korpela, 1989); and belongingness (Relph, 1976). Place dependence represents a functional attachment to an area. In other words, environmental features and attributes are important

for individuals because they facilitate activity-dependent experiences (Stokols & Shumaker, 1981). Dependence on outdoor settings suggests that individuals can become psychologically vested in an area over time, especially if this relationship is influenced by structured activities (Vaske & Kobrin, 2001). Place identity and dependence have been shown to be valid and generalizable instruments across different settings (Williams & Vaske, 2003).

Although emotional attachments to resources are difficult for some people to articulate, this information can be valuable for managers to formulate outdoor recreation policy (Schroeder, 2002). Williams and Stewart (1998) suggested that place attachment can assist with ecosystem management, but an open-ended dialogue with the public is needed to achieve this goal. Intangible values, such as place attachment, may underlie pro-environmental behaviors and promote a steadfast commitment to conservation (Stewart & Kirby, 1998). Some research has shown that people who have strong place attachment values are more likely to engage in stewardship activities (Mitchell, Force, Carroll, & McLaughlin, 1993) and practice environmentally responsible behavior (Vaske & Kobrin, 2001) than individuals not possessing these attributes. In other words, visitors should care about the resources so they can care for the resources (Larsen, 2003). Voluntary stewardship can take various forms, such as donating time or money to support conservation efforts. Most resource agencies encourage this type of behavior because they realize that public involvement is necessary to accomplish some management goals.

Studies on place attachment are fairly common in recreation journals (Farnum et al., 2005), but almost nonexistent in the interpretation literature (Goldman et al., 2001). According to Stewart and Kirby (1998, p. 43), sense of place provides a “compelling direction for the evaluation of interpretation.” Despite much interest in this topic, interpreters seem to focus on place meanings (Kohl & Eubanks, 2008; Larsen, 2002; Silverman & Masberg, 2001). Some of this terminology has been adopted by public agencies and non-governmental organizations. For example, the National Association for Interpretation (NAI) uses the following definition for the profession: “a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource” (NAI, 2008).

Purpose of Study

This study was designed to measure the effect of interpretation on sense of place. Specifically, it examined the place attachment scores of visitors who participated in a wild cave tour at Rock Bridge Memorial State Park (Missouri, USA) using a quasi-experimental design. It was hypothesized that no significant differences would occur between pre- and post-assessments on any of the dependent variables used in this study.

Methods

Setting

Rock Bridge Memorial State Park (RBMSPP) is a 2,273-acre day-use area that lies between two physiographic regions in mid-Missouri; the Dissected Glaciated Till (to the north) and the Ozark Plateau (to the south). Due to this juxtaposition, RBMSPP contains a rich diversity of plant and animal life, including both endemic and endangered species. This site is one of the finest examples of karst topography in the state. The landscape supports

a spring, sinkholes, a “rock bridge” (the namesake), and an extensive cave system with more than seven miles of known passageways. It is managed by State Parks & Historic Sites, a division of the Missouri Department of Natural Resources.

Program

Most of the 200,000 annual visitors at RBMSP participate in traditional forms of outdoor recreation (hiking, biking, picnicking, etc.), but about 400 guests attend a fee-based cave tour through Devil’s Icebox (DI). Trips are open to the public and available on a first-come, first-served basis during the spring and fall seasons. This management strategy is designed to avoid conflicts with roosting populations of gray and Indiana bats that use the cave during the summer and winter months, respectively. This solution allows for coexistence of bats and tourists (Pennisi, Holland, & Stein, 2004). The wild cave tour combines elements of education with recreation into one activity that lasts for more than eight hours. Various aspects of cave ecology are covered in the interpretive program, including information on geology, hydrology, biology, and human-induced impacts. One highlight of the trip is canoeing in an underground stream through portions of the cave.

The DI wild cave tour is physically challenging. Participants are required to portage their canoe, crawl through muddy passageways, and wade through cold water (cave temperature is 56° Fahrenheit year-round). Park guides or trained volunteers must accompany all participants; typical group size is about 10 people. Guided tours are available only on Saturdays and Sundays (two trips per day). Advance reservations are necessary and registration must accompany payment (\$25 to \$40, depending on which tour is selected). In addition, visitors are required to get some specialized gear if they do not have it before entering the cave. The wild cave tours are divided into four levels of difficulty: A (easiest) through D (hardest). The most popular tour was level B, mainly because it required no previous caving experience. Since level B tours comprise the majority of DI wild cave tours conducted each year, it was selected for evaluation.

Sample Selection and Experimental Design

The sample consisted of visitors who participated in a DI wild cave tour during the fall or spring seasons of 2006–2007. A purposive sampling approach was used because it targeted a group of individuals for a specific reason (Babbie, 2000). This study used a quasi-experimental research design known as a static group comparison (Campbell & Stanley, 1963). Its main purpose is to compare the responses of people who received a treatment versus those who did not. In this case, the interpretive program (wild cave tour) was the treatment. The primary drawback of using static groups is lack of randomization, but this feature is rarely available in field-based studies. Generally speaking, the benefits of using a “real-world” setting outweigh the increased threats to internal validity. Another criticism of this design is the use of independent rather than dependent samples. One way to address this issue is to locate an equivalent group for comparison purposes.

Each of the tour guides received some training in survey research methodology. Prior to administering the questionnaires, a complete list of wild cave tours was obtained from the staff at RBMSP and pre-assigned into “control” or “treatment” groups. Ultimately both groups received the treatment, but the timing of measurement differed. Every adult visitor was asked to complete a questionnaire, either before

(control) or after (treatment) their cave tour—but not both times. Visitor burden, time constraints, and the likelihood of a pre-test sensitization effect precluded the use of a traditional pre- and post-test design (Gall, Gall, & Borg, 2006). All testing was conducted anonymously inside the park office. It took visitors less than 10 minutes to complete the three-page instrument.

Questionnaire

The first section of the questionnaire included items on: previous DI trip experience, frequency of visits, travel party composition, gender, age, and zip code. Most of these responses were captured in an open-ended format.

It was important to distinguish between people who had not entered the cave versus those who had completed the trip. The two versions of the questionnaire were identical, except for coloration and verb tense. A two-color scheme was used to ensure that tour guides administered the correct questionnaire. Although the same items appeared on both versions of the questionnaire, the wording was changed slightly between the control group (future tense) and the treatment condition (past tense) on some items. This was done to measure the expectations and satisfaction with the interpretive program, respectively. For example, pre-tour participants were asked if the presentation should be educational, whereas those in the post-tour were asked if it was educational. Other items measuring the program included: clear message, well organized, relevant, addressed safety issues, challenging, anxiety reduction, achievement, attention, fun, social interaction, and a pleasant memory. Each item was measured on a four-point scale, coded as: not important (1); somewhat important (2); very important (3); and extremely important (4) for the control group and poor (1); fair (2); good (3); and excellent (4) for the treatment condition.

A place attachment scale developed by Williams and Vaske (2003) was used in this study. It was modified slightly to ask visitors about DI, not RBMSP. This measure included 12 items, divided into two sub-scales: place identity (six items); and place dependence (six items). Each of the items were measured on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha was used to measure internal consistency. This score was 0.89, indicating the scale was a reliable instrument.

Results

Response rate and sample characteristics

A total of 198 visitors completed a questionnaire, either before ($n=90$) or after ($n=108$) their cave tour. The non-respondent bias effect was thought to be negligible since only four people refused to take the survey. Although the sample consisted primarily of first time visitors (86.9%), many of the participants knew each other prior to arrival. Most visitors were accompanied by their friends (44.9%); family members (17.2%); or family and friends (17.7%). Less than 6.0% of the participants came alone. Generally speaking, tour groups consisted mostly of young adults ($M = 30.65$, $SD = 10.35$), and were predominately males (70.1%). Most visitors came from the local area (41.0%), but the sample included a total of 83 zip codes.

The pre- and post-test groups were nearly identical, as seen on several measures. Chi-square tests between the observed and expected number of visitors in the two conditions were non-significant ($X^2 = 1.6$; $df = 1$; $p = 0.201$), along with their previous

Table 1. Program evaluation scores measured before (control) and after (treatment) the wild cave tour at RBMSP.

Item	Diff. means	t-value	df*	p-value
It should present (it presented) a clear message	1.14	10.75	170.7	<0.001
It should reduce (it reduced) my anxiety level	1.13	10.07	189.7	<0.001
It should be (it was) educational	0.93	9.97	155.7	<0.001
It should be (it was) physically challenging	0.82	7.32	179.6	<0.001
It should give me (it gave me) a sense of achievement	0.82	8.72	168.7	<0.001
It should encourage (it encouraged) social interaction	0.74	6.67	173.2	<0.001
It should provide (it provided) relevant information	0.73	8.71	170.6	<0.001
It should get/hold (it got/held) my attention	0.68	7.64	154.0	<0.001
It should create (it created) a pleasant memory	0.56	6.96	144.3	<0.001
It should address (it addressed) safety issues	0.39	4.23	159.2	<0.001
It should be (it was) fun	0.30	4.03	140.6	<0.001
It should be (it was) well-organized	0.22	2.54	172.9	0.012
Total	0.70	11.98	181.5	<0.001

* equal variances not assumed

Table 2. Place attachment scores measured before (control) and after (treatment) the wild cave tour at RBMSP.

Item	Diff. means	t-value	df*	p-value
<i>Place identity</i> ($\alpha = 0.89$)	0.09	0.98	187.5	0.329
• I feel that DI is a part of me	0.22	1.75	190.1	0.081
• DI is very special to me	0.22	2.01	187.5	0.045
• I identify strongly with DI	-0.04	0.39	176.2	0.694
• I am very attached to DI	-0.01	0.08	190.4	0.938
• Visiting DI says a lot about who I am	-0.05	0.37	176.9	0.709
• DI means a lot to me	0.18	1.50	188.9	0.135
<i>Place dependence</i> ($\alpha = 0.74$)	-0.18	2.52	181.2	0.013
• DI is the best place for what I like to do	-0.06	0.56	179.6	0.577
• No other place can compare to DI	-0.10	0.78	188.9	0.439
• I get more satisfaction out of visiting DI than any other place	-0.30	2.95	181.8	0.004
• Doing what I do at DI is more important than doing it any other place	-0.18	1.65	186.8	0.102
• I wouldn't substitute any other area for doing the things I do at DI	-0.18	1.64	185.6	0.103
• The things I do at DI I would enjoy doing just as much at another site †	-0.27	2.44	190.9	0.016
<i>Place attachment</i> ($\alpha = 0.89$)	-0.05	0.62	184.5	0.534

* equal variances not assumed

† item was reverse-coded

number of cave visits ($X^2 = 1.4$; $df = 1$; $p = 0.234$) and travel party composition ($X^2 = 7.2$; $df = 5$; $p = 0.207$). An independent samples t-test showed that the ages of visitors were similar ($t = 1.1$; $df = 194.6$; $p = 0.256$). The only significant difference between the control and treatment groups in the sample was the gender ratio ($X^2 = 6.8$; $df = 1$; $p = 0.01$). The control group had a lower percentage of males (60.1%) than the treatment condition (77.7%).

Interpretive program

The scale used for measuring the interpretive program was tested for possible effects. After comparing the expectation with satisfaction scores of cave tour participants, their overall score was found to be significantly different ($t = 11.9$; $df = 181.4$; $p < 0.001$). The average score for the control group ($M = 2.85$) was much lower than the treatment condition ($M = 3.55$). Each of the 12 items was significantly different, increasing from lower to higher scores, respective to the control and treatment groups. See Table 1.

Place attachment

The overall place attachment scores of participants were similar after comparing the control with treatment groups ($t = 0.62$; $df = 184.5$; $p = 0.534$). The mean scores for the two conditions were $M = 3.02$ for the control and $M = 2.98$ for the treatment. Two additional independent samples t-tests were conducted on the subscales, before and after the cave tour. Place identity scores yielded a non-significant result ($t = 0.98$; $df = 187.6$; $p = 0.329$), but the place dependence scores were significantly different ($t = 2.52$; $df = 181.2$; $p = 0.013$). The place identity mean scores were $M = 3.09$ and $M = 3.18$, respectively, and $M = 2.95$ and $M = 2.77$, respectively for place dependence. See Table 2.

Additional tests were conducted on place attachment scores using previous DI experience as an independent variable. Novices ($n = 26$) were compared with repeat visitors ($n = 168$) using overall place attachment scores, as well as their identity and dependence subscales. The composite place attachment scores were significantly different ($t = 2.22$; $df = 32.9$; $p < 0.033$), increasing from $M = 2.96$ to $M = 3.22$, respectively. Although place identity differed significantly ($t = 2.75$; $df = 33.9$; $p < 0.009$), place dependence did not ($t = 1.29$; $df = 31.9$; $p = 0.204$). The mean scores of novices and repeat visitors increased for both of the subscales: identity ($M = 3.09$ vs. $M = 3.46$, respectively) and dependence ($M = 2.83$ versus $M = 2.98$, respectively).

Discussion & Conclusions

Results from this study suggested that the wild cave tours at RBMSP were beneficial for visitors and park staff. Individuals in the treatment condition (after the tour) scored higher on every programmatic variable as compared with those in the control group (before the tour). It is likely that visitors believe the program was worth the fee paid. The park staff should be pleased with these findings since it requires a lot of time and effort to manage the tours twice a year. In addition to providing a unique service to park visitors, the cave tours generate about \$15,000 per year.

Conducting social science research in naturalistic settings has some inherent problems, so generalizations from this study should be made with caution. Some measures were employed to reduce the number of rival hypotheses, but eliminating every threat to internal validity was impossible. For example, one limitation of this study was using park staff and trained volunteers to collect the data. Since it was impractical

for one person to administer all the questionnaires, some variation in the protocol may have occurred, despite being told otherwise.

This study employed a quasi-experiment known as a static group comparison. Although a true experiment is a more powerful design, it was not permissible to select or assign cave visitors randomly to treatment and control groups. One purpose of this study was to examine intact groups—something that randomization is designed to eliminate. On any given tour, pre-existing friendships were more common than groups consisting of strangers. Tour length and physical exertion increased opportunities for interpersonal communication and social bonding to occur. In all likelihood, these conditions resulted in more ascribed meanings about the resource.

Due to time constraints and the likelihood of a pre-test sensitization effect, the same participants were not measured before and after their cave tours. Since independent samples were used, actual changes in the dependent variables are implied, but not measured. Differences in mean scores cannot be attributed to the program unless it can be shown that another group of individuals were similar before the treatment occurred. The best possible control group consisted of visitors who had enrolled on the tour, but not yet taken the trip. Four separate tests were used to confirm group equality before the program started, thus lessening this potential criticism.

The place attachment scores of participants were not significantly different as measured before and after the cave tours. Considering the uniqueness, length, and expense of the trip, this finding was unexpected. A further surprise was that neither subscale (identity or dependence) increased after the program. In fact, place dependence decreased significantly. Place attachment scores were moderately high before cave entry.

Helping visitors to develop resource-based emotional attachments (Knudson et al., 2003) implies that positive changes will occur. Although it might be a purpose of interpretation, sense of place, as measured in this study, did not improve. This result might be difficult for some tour guides to accept since place attachment was considered by many to be a foregone conclusion. In order to become a group leader, trainees had to spend many hours in the cave gaining familiarity with the routes. One would assume that the leaders had a high degree of place attachment because most were volunteers. Many cave guides consider emotion to be a core outcome of visitor experiences, more important than providing factual information. Moreover, affect is thought to be a tool for creating a heightened sense of awareness and knowledge of place (Davidson & Black, 2007).

One promising result of this study was that frequent visitors to DI scored higher on place attachment than first-timers. Although frequency of cave tour visitation and place attachment scores are related, this might not be a cause-and-effect relationship. It is possible that visitors sought this experience because of a previously-formed attachment to caves. In other words, the treatment effect for this group might be negligible. However, this scenario seems unlikely since there was ample room for improvement in the place attachment scores of frequent visitors (after the tour). Frequency of participation and place attachment may have some profound implications for interpretation. Despite the fact that interpreters want their programs to have an immediate and lasting impact, it may take participants more than one exposure to develop a sense of place. Marketing strategies should encourage first-timers to become repeat visitors, perhaps through information on the website or use of direct mailings.

If repeated exposure is a good explanation for developing place attachment

(changes over time), then this finding is consistent with other studies (Eisenhauer, et al., 2000; Moore & Graefe, 1994; Williams et al., 1992). Familiarity with the outdoors is likely to rearrange one's "mental model" as new stimuli are added to the system, thus allowing people to absorb more information (Neisser, 1976). Knopf (1981) examined this relationship and concluded that programs ought to build upon one another to produce high-quality interpretive experiences. Effective interpretation, according to Beck and Cable (2002), aims to stimulate existing cognitive maps, thus making information relevant to visitors. Although specific facts from interpretive programs may not be recalled, generalized memories can be retained for long periods of time (Knapp & Yang, 2002). Undoubtedly, these memories include a unique mixture of cognitive, affective, and behavioral components that probably represents what Tilden (1977, p. 38) described long ago, "Through interpretation, understanding; through understanding, appreciation; through appreciation, protection." More studies measuring the relationship between interpretation and place attachment will be helpful to understand this phenomenon.

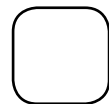
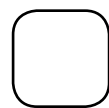
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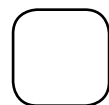
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IN SHORT



Australian Postgraduate Theses in Interpretation, Tour Guiding, and Environmental Education

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Abstract

This research note presents a summary of a project that reviewed Australian postgraduate theses/dissertations completed to date on interpretation, tour guiding, and environmental education in Australia as one indicator of the state of research in these fields and as a basis for comparison with other countries. An inventory of 120 doctoral and masters-level theses completed in these three general topic areas found that nearly three-quarters were in environmental education, with two Australian states and two universities responsible for a disproportionate number of these. Projects relating to high school environmental education and studies of specific countries were prominent, while specific parks and nature-based settings dominated interpretation research. Australian social, political, and environmental factors help to explain the decline in masters and growth in doctoral research, and the shifts in topical focus over the 30-year period. Implications for both research and professional practice in interpretation are presented.

Keywords

interpretation, environmental education, tour guiding, postgraduate, thesis, dissertation, Australia

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Introduction

The year 2008 marks 30 years since the completion of the first postgraduate thesis in interpretation, tour guiding, and environmental education in an Australian university. Research activity, including research undertaken by university staff, postgraduate students, and others, is an essential step in the development of the art and science of environmental education and interpretation. Heritage and nature interpreters, tour guides, and many environmental educators share a common profession of communicating with audiences in non-formal settings. The differences between them, largely related to their place of employment and their target audiences, are outweighed by the similarities, founded on principles of effective communication that seek to promote enjoyment, learning, engagement, and appreciation, and sometimes to foster attitude and behavior change. In this research note, these fields are collectively referred to as interpretation practice. The production of research that can inform and advance this practice requires the training of researchers who know how to access, undertake, interpret, and apply research. These are the fundamental goals of postgraduate research programs, and provided the rationale for the focus and aim of this project: to examine the nature and extent of Australian postgraduate research, its patterns and trends, and the implications of these for interpretation, tour guiding, and environmental education research and practice. While postgraduate students are not the only ones undertaking and applying research, their work provides one useful indicator of the extent of research and where it is and is not being focused. Following an overview of previous studies that have examined trends and patterns in postgraduate research theses and dissertations¹ and a synopsis of the project's methods, highlights of the findings are presented with respect to geographical, topical, and temporal distributions in thesis completions. These are explained in part by the political and educational contexts that have been influencing and shaping postgraduate study in Australia during the past three decades. The emphases and gaps in the research are used to suggest avenues for further research.

Review of previous studies examining trends in postgraduate research

Studies examining the output, patterns, and trends in postgraduate research have been undertaken in a number of other disciplines (Spear, 2007). In the tourism field, Jafari and Ascher (1988), followed by Meyer-Arendt and Justice (2005), analyzed a dataset of North American doctoral dissertations over the period 1951–1987 and 1987–2000

¹For the purposes of this research note, the terms “dissertation” and “thesis” are used interchangeably.

respectively. Jafari and Ascher's (1988) analysis of aggregate trends and patterns in the data revealed that growth over the period "was neither continuous nor at a certain rate" but that the overall trend was positive, and Meyer-Arendt and Justice (2005) reported a dramatic growth in postgraduate research output in their 14-year study period, more than double the output of the previous study's nearly 36-year study period. In Australia, Hall and Pedrazzini's (1989) small-scale study of postgraduate research in tourism, recreation and related subjects prompted a follow-up study by Laing and Weiler (2008), which added 20 years of data to assess the postgraduate tourism output to date and to identify trends and gaps. In their 40-year period of analysis, Laing and Weiler observed that growth in Australian postgraduate research in tourism had been exponential, due mainly to growth in doctoral research. Conversely, there has been a sharp decline in masters-level research since the mid 1990s.

Of particular relevance to the current study is Wu and Chen's (2005) examination of postgraduate research in interpretation and tour guiding in Taiwan, which covered a 20-year period from the first thesis completion in 1984. They found 56 masters and no doctoral theses on interpretation and/or tour guiding during this period. Wu and Chen (2005) reported that half of all postgraduate research in interpretation and guiding in Taiwan focused on national parks and forest recreation areas. More than half of the theses researched some aspect of the visitor's perspective on interpretation / tour guiding effectiveness and nearly half looked at the factors that make for a successful interpreter / tour guide. Theoretical and disciplinary contexts were wide-ranging with the most common being environmental education, forestry, tourism management, and horticulture. This is the only published study to date on trends and patterns in postgraduate research in interpretation and provided a benchmark for the Australia-based project summarized in this research note.

Methods

Two databases, Libraries Australia's *Australian National Bibliographic Database* (ANBD) and the *Australasian Digital Theses* (ADT) program database, were searched using the keywords environmental education, interpretation, museum education, tour guiding, nature-based tourism, ecotourism, and heritage tourism, and the results used to assemble an Endnote database of 292 entries including author, title, key words, subject/discipline, university and year of completion. Unlike Wu and Chen's (2005) study of Taiwanese graduate interpretive research, it was not possible to obtain and read each thesis. Other details and limitations of the methods are outlined in the full report on this project. Three independent researchers checked the reliability of the data and categorized each thesis as interpretation, tour guiding, and/or environmental education-focused, or as irrelevant and to be removed from the analysis. This resulted in a refined list of 120 theses with a genuine focus on interpretation, tour guiding, and environmental education.

Results

Highlights from the analysis of the 120 dissertations are presented: first in aggregate, describing and explaining patterns in the level of study, geographical location of the research, focus and topics of study, and disciplinary context; and second, examining changes over time.

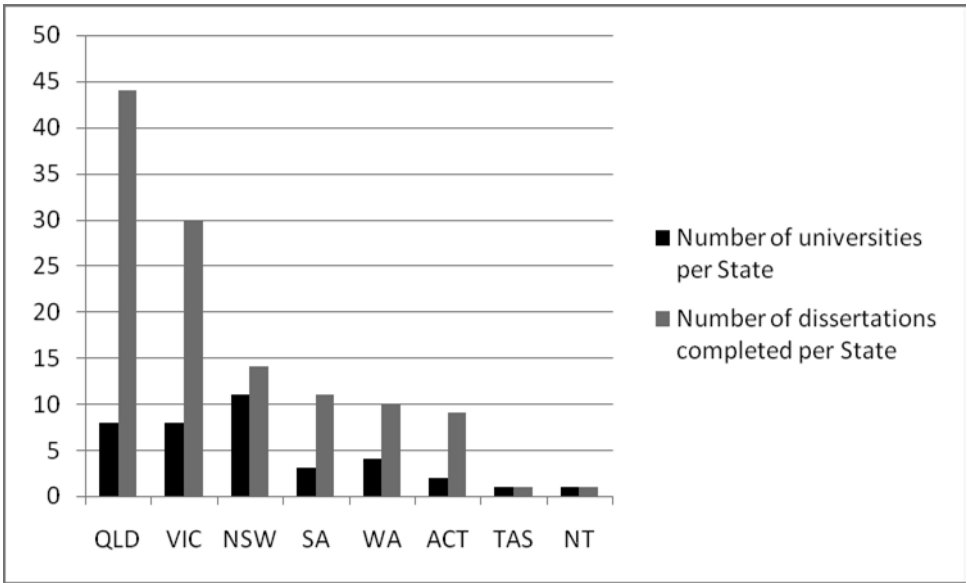


Figure 1. *Number of Australian Universities and Postgraduate Dissertations in Interpretation, Tour Guiding and Environmental Education by State, 1977–2006.*

Describing and Explaining Patterns in the Theses

The majority (70%) of the Australian theses are at the masters level, which mirrors tourism research in Australia (Laing & Weiler, 2008). However, it is notable that 29 (30% of all theses) were at the doctoral level, in comparison to no doctoral-level research emanating from Taiwan (Wu & Chen, 2005). The majority of dissertations focus on environmental education (74%) with fewer on interpretation (17%) or tour guiding (9%). In contrast, Wu and Chen state that only eight (14%) of the theses in their database were conducted by students within the discipline of environmental education. The predominance of environmental education theses in Australia may reflect the wide range of discipline areas such as education, environmental science, geography, park management, and museum studies, and the place of environmental education in the public domain and national agenda since the 1970s. It is also interesting to note that despite a call for research that focuses on the interface between formal environmental education and informal environmental education (interpretation) in the late 1990s (Ballantyne & Uzzell, 1999), only one thesis was identified as falling into both categories.

A state-based analysis reveals that universities in Queensland (37%), Victoria (25%), and New South Wales (12%) produced the greatest number of dissertations, a pattern consistent with the distribution of population and universities in Australia, although Queensland produced more than three times the number of dissertations than did New South Wales, despite its population being only half the size of the state of New South Wales. Comparing these percentages to the number of universities in each state, it became apparent that Queensland is outperforming the other states not only in absolute terms but also in relative terms, and that fewer theses are coming out of New

South Wales universities than might be expected, given the size of the New South Wales population (one-third of Australians) and the number of universities (nearly one-third of Australia's universities) (see Figure 1).

The dominance of theses emanating from Queensland and Victoria may reflect the dominance of these states in the development of environmental education masters programs, with many of Australia's best known environmental educationalists located in these universities playing central leadership roles in research both nationally and internationally. The extent to which this dominance by Queensland and Victoria, which together accounted for nearly two-thirds (62%) of all completed postgraduate theses, has resulted in a geographical bias in the research focus requires further investigation.

As foreshadowed by these state patterns, universities in Queensland and Victoria have been prominent in producing postgraduate research theses. The most prolific institutions in terms of dissertations produced during the period 1977–2006 were Griffith University (32 theses or 27%) in the state of Queensland and Monash University (11 theses or 9%) in the state of Victoria, together producing over one-third of the country's postgraduate research degree theses. However, another nine universities contributed quite substantially to postgraduate research degree completions, totaling 47 theses or an average of five per institution, and an additional 16 universities produced between one and three theses, indicating a spread across institutions.

Although several universities offered masters qualifications in environmental education during this time, opportunities to undertake a masters in interpretation were limited to a small number of universities with limited capacity for supervision. No university offered a masters in tour guiding, although about 20 Australian universities currently offer tourism-related masters qualifications. In contrast to environmental education, no single university produced more than three dissertations in either interpretation or tour guiding.

The disciplinary context of the theses was wide-ranging. For example, many of the environmental education theses were completed in university departments having a focus on geography, environmental studies, education, and leisure studies. An even wider range of disciplines informed postgraduate research in interpretation, including psychology, history, tourism, outdoor education, and health science. This is consistent with Ballantyne and Uzzell's (1999, p. 61) observation that "current interpretive practice is informed by a broad, multidisciplinary base with input from research in education, psychology, sociology, cultural studies, and tourism." The range of disciplines and thus theoretical perspectives informing environmental education theses appears to be narrower than for interpretation. The wide diversity of discipline areas for interpretation is similar to Wu and Chen's (2005) findings that Taiwanese postgraduate research in interpretation was undertaken in eight types of academic programs, notably environmental education, forestry, tourism management, and horticulture.

An analysis of the environmental education theses' titles found that many focused on specific country case studies, predominantly in Asia (6 out of 13), on high school education (10), and on community education (8). Among the 32 interpretation and tour guiding theses, there was also a diversity of topic areas. Thirteen of the 21 interpretation theses were studies based in the natural environment with the remaining focusing on European and Aboriginal culture and the arts. Many of the theses focusing on the natural environment used specific locations, especially parks and nature-based resorts. Six of the 11 tour guiding theses focused on guides in the natural environment, probably

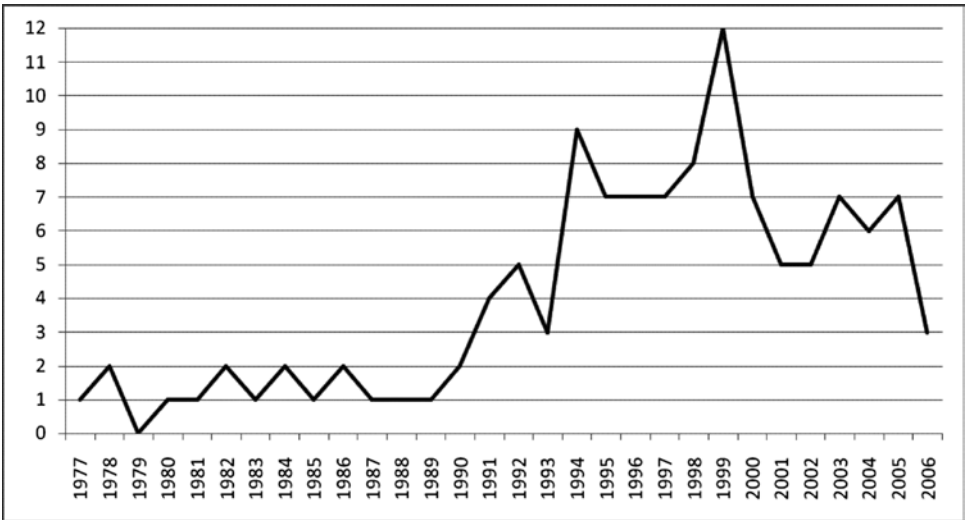


Figure 2. *Number of Postgraduate Dissertations in Interpretation, Tour Guiding and Environmental Education, 1977–2006.*

reflecting a growing awareness of the role of the guide in the ecotourism and nature-based tourism sectors, particularly in the past 10 years (Black, 2002). No doubt the dominance of environmental and geography disciplines somewhat skewed the research output toward natural as compared to cultural environments.

Wu and Chen (2005) found an equally diverse set of topic areas among the Taiwanese theses; however, in comparison with Taiwan, Australian theses had more limited types of research sites, mainly national parks.

Describing and Explaining Trends over Time

Figure 2 illustrates the growth over time in the number of postgraduate research theses completed. For the first 14 years (1977–1990), there was no growth at all. This was followed by a period of fairly steady growth reaching a peak in 1999, after which output dropped back to the levels of the early 1990s.

A closer look at the data revealed a recent decline in masters-level research but a steady growth in doctoral-level, particularly from 1997 onwards. These trends can be partially explained by the changes in Australian federal government policy regarding university fees, which acted as a significant disincentive for enrolling in masters degree programs. At the same time, the maturation of Australia's higher education sector has increased the pressure on academic staff to enroll in and complete doctorates. An increase in the number of Ph.D. scholarships available through universities provided further incentive for anyone interested in an academic career to enroll in a doctorate rather than a masters degree.

An analysis of topical focus over time revealed that during the 1990s many environmental education theses focused on school curriculum and education programs, and then shifted in the latter half of this decade to community education, early childhood and country-specific case studies. Since 2000 the focus has shifted to program evaluation,

sustainable living, and country-specific case studies. These shifts may reflect a number of factors including international students undertaking masters-by-coursework programs, and an increasing interest in sustainability as an issue of public concern and debate. Changes in topical focus of tour guiding theses over time are also evident, for example a shift from a nature-based / ecotour focus to an indigenous / Aboriginal focus, but the small numbers (a total of eleven compared to 89 theses in environmental education) limit the conclusions that can be drawn. No temporal trends were evident in the focus of the 21 interpretation theses completed.

Implications of Postgraduate Research for Interpretation Research and Practice

The completion of a thesis in interpretation, environmental education, or tour guiding suggests some level of competence as a researcher. Indeed, the names of many well-known Australian academics and research consultants were evident in the database assembled for this study. Many of these graduates have contributed to the development of their respective fields by authoring books, journal articles, and conference papers and actively contributing to their respective professional associations. Others are working as public servants and playing a support role in facilitating research in their respective fields.

Although these are encouraging signs of a growing research culture in these fields, there is still room for improving the understanding and application of research. In terms of numbers alone, 120 theses, of which the majority were environmental education focused and only 29 were doctoral-level, is a meager number for the size of the country. By way of comparison, 461 tourism-related theses were completed in Australia during approximately the same time period, of which 191 were doctoral-level.² Moreover, taking into account the 30-year period, one would expect that many of the early graduates have since retired and others have never worked in these fields. It is not surprising, then, that so few practitioners working in interpretation in Australia have a background in and capability to undertake research (Black & Weiler, 2008).

It is acknowledged that the number of completed postgraduate theses is a crude indication of research capacity. Australia is known for its propensity to import expertise from other countries, and the fields of interpretation, environmental education, and tour guiding may be no exception. The extent to which Australian tertiary institutions and government agencies have recruited research expertise from overseas is unknown and may well be an avenue for further investigation.

If Australia is to stay abreast of industry trends and international standards of excellence, it needs professionals with research knowledge and skills. Clearly, there is a need not only to expand the amount of postgraduate research undertaken, but also the depth and breadth of theory and disciplinary knowledge that is applied (Ballantyne & Uzzell, 1999). Government bodies, private and non-profit organizations, professional associations, and others could be more proactive in encouraging and fostering postgraduate research, perhaps through research sponsorship, the provision of scholarships, or providing in-kind support to tertiary institutions to facilitate research. Such support could be tagged to particular regions and/or topics of greatest need.

Universities could also be more proactive in developing links with industry

²Note that a few theses, particularly ones focused on tour guiding, appear in both datasets.

partners to initiate funded research projects that meet the research needs of industry. Other strategies used in other disciplines include providing support to academic staff to enroll in and complete postgraduate research degrees, and disseminating and promoting the benefits of research by employing extension officers and offering seminars and workshops specifically targeted at industry professionals.

Conclusion

This project identified 120 theses completed in the areas of environmental education, interpretation, and tour guiding over the past 30 years. Analysis of these theses suggests an emphasis on environmental education and nature-based interpretation, with less research undertaken on heritage and cultural interpretation and, in comparison to Taiwanese postgraduate research, little research on tour guiding. There is scope for disciplines such as cultural studies, sociology, psychology, political science, marketing, and management to make a contribution to future research.

In conclusion, this research note uses evidence gained through an analysis of postgraduate research as one indicator of the research status in these fields. Research is also being undertaken in these fields by others such as consultants, academics in a wide range of disciplines, research centers and institutes, government bodies and individual practitioners, and by both Australians and non-Australians, to advance the science and practice of interpretation in Australia. The postgraduate research effort is one indicator of the extent to which training and preparation of researchers is occurring in this area. Generally, the findings suggest that postgraduate research in interpretation, tour guiding and environmental education, while somewhat limited compared to other cognate disciplines such as tourism, shows indications of continued growth at the Ph.D. level and, at least in environmental education, a resurgence of interest at the masters level. The findings point to topical areas of strength, particularly in the fields of environmental education and nature-based interpretation, but also reveal gaps and areas for growth in both topical focus and discipline context. An avenue for further research would be to track the career paths of postgraduates, as well as to assess the level of application and uptake of their postgraduate work and any subsequent research they have undertaken. Finally, the methods and findings of this study provide a benchmark for follow-up and comparative research with other countries.

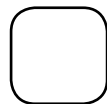
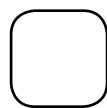
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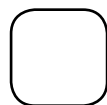
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Note

A full report on this project is available by contacting the corresponding author.



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).

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McCool, S. & Braithwaite, A. (1992). Persuasive Messages and Safety Hazards in Dispersed and Natural Recreation Settings. In M. Manfredi (Ed.), *Influencing Human Behavior*. Champaign, IL: Sagamore Publishing.

Ryan, C. & Dewar, K. (1995). Evaluating the Communication Process Between Interpreter and Visitor. *Tourism Management*, 16(4): 295-303.

Tilden, F. (1977). *Interpreting Our Heritage* (2nd ed.). Chapel Hill: University of North Carolina Press.

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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.

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Please submit an original and three copies of your manuscript to the address below. Authors whose manuscripts are accepted for publication must submit final manuscripts electronically or on computer disk.

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