

# **Bridging the Gap: Assessing Managers' Perspectives of Visitor Experiences at Canyon de Chelly National Monument**

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## **Introduction**

A central interest of park and recreation researchers is to understand how visitors view their park experiences. Visitor attitudes as perceived by managers do influence policy, and knowledge of visitor and manager perceptions can inform planning practices to better meet visitors' expectations. This requires that managers understand user preferences and also understand how to direct on-site compliance that supports the implementation of appropriate management prescriptions. Obtaining "objective information on visitor attitudes, preferences, and perceptions is needed because this may differ from perceptions of recreation managers" (Manning 1999:62). Visitor perception studies are routinely conducted to identify motives, preferences, and evaluations of park services; however, few studies have examined whether managers are truly aware of visitors' needs and desires. A few notable exceptions include studies that compared visitor and manager assessments of wilderness areas (Hendee and Harris 1970), campgrounds sites (Clark et al. 1971), ski touring on national forest lands (Rosenthal and Driver 1983), and managers' predictions of visitor perceptions of Cape Hatteras National Seashore and Shenandoah National Park (Wellman et al. 1982). While these comparisons have focused on manager and visitor opinions of recreation experiences, no studies have evaluated these components at a cultural park. The present study was conducted at a remote park, which is co-managed by the Navajo Nation and the National Park Service. We hypothesized that the complex relationships present at this cultural site would challenge managers to predict visitor experiences. Our main objective in this study is to present an in-depth examination of natural area planning and management at a cultural park by examining the degree to which manager and visitor perceptions align.

## **Methods**

**Study area.** We conducted our study in Canyon de Chelly National Monument. This is an 83,840-acre natural area located on Navajo tribal trust land in northwestern Arizona. The National Park Service works in cooperation with the Navajo Nation and the Bureau of Indian Affairs to manage the cultural resources, as well as administrative and visitor facilities, at the park (Sanders 1996). Access to the park is limited for non-Navajo (i.e., most visitor activities in the canyon require the accompaniment of an authorized Navajo guide). In addition to the

large proportion of Navajo staff members, there is a unique relationship among managers, local residents, and park visitors.

Canyon de Chelly is one of the few parks in the United States with a resident community. In community-controlled protected areas there is typically an unbalanced and unidirectional role of indigenous people in the decision-making process (Stankey 1989). The World Conservation Union (IUCN) reports that at least 80% of the world's biological hotspots are the homelands of indigenous people. It is important to understand that there is a unique relationship between managers and visitors within the collection of international protected areas. The relationship present in Canyon de Chelly serves as a representation of international parks, which include resident communities.

**Sampling design.** We collected data from a probability sample of visitors between 1 June and 30 November 2006 ( $n=386$ ). Data were attained at a response rate of 86%. We accepted statistical significance at  $p \leq 0.05$ . Researchers at Arizona State University designed the questionnaire in cooperation with the National Park Service to inform planning and management. We distributed identical questionnaires to a sample of park managers ( $n=24$ ), asking them to predict how they thought visitors would complete the survey. Managers from the following divisions of park employment were provided the same visitor survey: administration, interpretation, cultural and resource management, and law enforcement. We compared the two groups across six constructs: (1) motivation, (2) experience, (3) crowding, (4) place attachment, (5) satisfaction, (6) and perceptions of authenticity. An independent-samples t-test was employed to analyze differences between the visitor group and the manager group. In addition to paper surveys, we interviewed managers and used their opinion as a representative model for each level of analysis in an effort to further interpret our findings; this information is incorporated into the discussion section.

The initial visitor survey contained ten constructs (White et al. 2007); however, we only deal with six constructs in this paper.

1. **Motivation.** We examined visitor motivation to clarify the reasons why people engage in recreation activities. Thirteen items were asked of visitors and managers to indicate motivation. The foundational concepts surrounding park visitor motivations have allowed recreation professionals to maximize user benefits, minimize conflicts, and to determine consequences of these activities (Manfredo et al. 1996).
2. **Experience.** The visitor experience is a unique and important factor formed of the values associated with environmental settings (Manfredo et al. 1996). A series of 10 items were assessed as the product of recreation-related activities.
3. **Crowding.** This study also assesses crowding in the context of carrying capacity, and can be defined as a psychological phenomenon that is felt if individual need for a given amount of space is not adequately met by environmental circumstances (Manning 1999). We utilized one standard 9-point Likert-type scale to examine this concept.
4. **Place attachment.** Through 12 items we examined the construct of place attachment, in the context of two fundamental dimensions: place identity and place dependence. Place dependence is the importance of a physical area to attain a desired experience,

and place identity conceptually allows an individual to identify with a setting to satisfy one's goals (Davenport and Anderson 2005).

5. **Satisfaction.** Eight items were measured to evaluate the construct of satisfaction. Relative satisfaction measures the quality of recreational opportunities and is defined as the degree to which a visit fulfills a desired experience (Manning 1999).
6. **Authenticity.** To determine what contributes to an authentic visitor experience, we measured this construct through a series of six items.

## Results

To identify the similarities and differences between managers' and visitors' perceptions we utilized quantitative and qualitative data.

**Motivation.** For 12 of the 13 items of motivation, managers' results were similar to those reported by park visitors. The only statistically significant difference was found in an item relating to archaeology ( $t = 0.04$ ,  $p \leq 0.05$ ), in which managers predicted that visitors would rate archaeology 12% higher than visitors reported (Table 1).

**Visitor experience.** Managers' predictions of the visitor experience construct aligned closely with visitor responses (Table 2). There were, however, three significant differences: the staff at Canyon de Chelly thought that visitors learned more about the National Park Service in their park experience than the on-site respondents claimed ( $t = -2.58$ ,  $p \leq 0.01$ ); visitors were more impressed with how Navajos have thrived in the canyon ( $t = 2.15$ ,  $p \leq 0.05$ ); and, visitors were more impressed with the cooperation between the Park Service and the Navajo Nation ( $t = 2.33$ ,  $p \leq 0.05$ ).

**Park crowding.** There was a significant difference in the single item that measured perceived crowding levels between managers and visitors. Based upon mean scores, managers

Table 1. Comparison of manager and visitor responses to the construct of motivation.

Statement	Visitor		Manager		t-value
	Mean	Std. Dev	Mean	Std. Dev	
Learn about archeology	3.03	1.19	3.57	1.08	-2.03*
Experience a different temperature	2.41	1.39	2.83	1.19	-1.60
Be close to nature	3.80	1.15	3.48	1.12	1.28
Get away from the usual demands of life	3.76	1.26	3.48	1.24	1.04
Develop personal, spiritual values	2.54	1.35	2.81	1.25	-0.89
Have an authentic experience of Navajo culture	3.57	1.15	3.35	1.15	0.91
Be with people who share my values	3.18	1.40	3.00	1.18	0.68
Be with family or friends	3.33	1.45	3.14	1.39	0.58
Learn about Navajo traditions	3.45	1.13	3.38	1.07	0.28
Experience solitude	2.90	1.35	2.96	1.26	-0.17
Develop my knowledge of history	3.49	1.11	3.52	0.93	-0.13
Learn about nature	3.20	1.17	3.17	0.98	0.10
Experience a connection with Navajo culture	3.37	1.22	3.39	1.12	-0.06

Note. Mean score value is on a scale ranging from 1 (Not at all important) to 5 (Extremely important).

\* Significant at  $p \leq 0.05$

Statement	Visitor		Manager		t-value
	Mean	Std. Dev	Mean	Std. Dev	
Learned about the National Park Service	2.88	1.02	3.48	0.93	-2.58*
Impressed by the cooperation of NPS and the Navajo Nation	3.82	0.93	3.35	0.93	2.34*
Impressed with how Navajo people have thrived in the canyon	4.15	0.79	3.78	0.67	2.15*
Learned about the biological diversity	3.41	1.03	3.14	0.96	1.16
Learned about the scientific value of the area	3.20	1.03	3.39	0.94	-0.84
Canyon de Chelly NM provided me with an authentic experience	3.82	0.92	3.96	0.71	-0.70
Nostalgic feeling for a simpler way of life	3.42	1.09	3.26	0.96	0.69
Learned about human history	3.91	0.76	3.95	0.92	-0.29
Felt proud to see the preservation of archeological resources	4.12	0.83	4.10	0.77	0.13
Learned how ancient cultures are related to modern tribes	3.67	0.87	3.67	0.97	0.02

*Note.* Mean score value is on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

\* Significant at  $p \leq 0.05$

Table 2. Comparison of manager and visitor responses to the construct of the visitor experience.

predicted that visitors would report a value of 4.0, while visitors actually reported a value of 1.8 ( $t = -5.45$ ,  $p \leq 0.01$ ). In other words, managers predicted that the visitors at Canyon de Chelly would perceive conditions to be 37% more crowded than visitors claimed.

**Place attachment.** We examined visitor survey results within two dimensions of place attachment: place identity and place dependence. Managers' predictions of visitor place attachment levels were ranked higher than visitors on half of the tested items (Table 3). Park visitors had higher levels of place identity than was predicted by managers ( $t = -2.18$ ,  $p \leq 0.01$ ), while within the dimension of place dependence, four out of five items were ranked significantly higher by managers ( $t = -3.09$ ,  $p \leq 0.01$ ;  $t = -2.36$ ,  $p \leq 0.01$ ;  $t = -2.28$ ,  $p \leq 0.01$ ;  $t = -2.13$ ,  $p \leq 0.01$ ).

**Satisfaction.** In our examination of satisfaction levels, manager and visitor opinions aligned for 75% of the items measuring the construct (Table 4). Of the two items that held significant differences, managers predicted that visitors would be 20% less satisfied with the educational exhibits ( $t = 4.43$ ,  $p \leq 0.01$ ), and 12% less satisfied with informative trail signs ( $t = 2.93$  and  $p \leq 0.01$ ).

**Authenticity.** In our analysis of an authentic visitor experience there was close agreement, while disagreement was found on one component of the construct titled "attending interpretive programs" ( $t = -2.40$ ,  $p$  value  $\leq 0.01$ ). Managers rated this indicator 13% higher than visitors, and, in turn, believed that visitors saw these programs as more important to an authentic experience at Canyon de Chelly.

## Discussion

We found consistent agreement between manager and visitor perceptions at Canyon de Chelly National Monument. It is apparent that these park managers, in a large part, under-

Subscale Items	Statement	Visitors		Manager		t-value
		Mean	Std. Dev	Mean	Std. Dev	
<i>Place Dependence</i>						
I get more satisfaction out of visiting Canyon de Chelly than from visiting any other park		2.87	0.98	3.52	1.04	-3.09*
I enjoy recreating in this park more than any other area		2.95	0.90	3.43	1.03	-2.36*
I wouldn't substitute any place for the type of recreation I do here		2.77	0.99	3.26	0.96	-2.28*
Recreating here is more important than recreating in any other place		2.70	0.92	3.14	0.96	-2.13*
I will (do) bring my children to this place		3.61	1.10	3.96	0.77	-2.00
<i>Place Identity</i>						
I have a special connection to the park and the native people who live here		3.20	0.97	3.65	0.71	-2.18*
I feel no commitment to the park		2.38	1.09	2.57	0.84	-0.77
I have a lot of fond memories about the park		3.91	0.88	4.05	0.74	-0.70
I don't tell many people about the park		2.16	1.02	2.00	0.84	-0.71
I identify strongly with the park		3.42	0.94	3.52	0.81	-0.47
Canyon de Chelly means a lot to me		4.08	0.81	4.00	0.84	0.44
I am very attached to the park		3.62	0.92	3.65	0.88	-0.18

*Note.* Mean value score is on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).  
\* Significant at  $p \leq 0.01$

Table 3. Comparison of manager and visitor responses to the construct of place attachment.

Facilities, Programs, or Services	Visitors		Manager		t-value
	Mean	Std. Dev	Mean	Std. Dev	
Quality of educational exhibits at visitor center	4.05	0.89	3.14	1.06	4.43*
Educational signs on the trails	3.71	0.91	3.10	1.04	2.93**
Cleanliness of visitor center	4.63	0.86	4.38	0.67	-0.07
Overall condition of campground	3.91	0.98	3.70	0.88	1.01
Availability of hiking trails	3.68	1.16	3.48	1.12	0.81
Overall quality of horseback riding tour	3.55	0.91	3.47	1.01	0.35
Overall quality of concession jeep tour	3.92	0.96	3.84	0.76	0.33
Cleanliness of restrooms	3.94	0.98	3.96	0.71	-0.07

*Note.* Mean value score is on a scale ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied).  
\*Significant at  $p \leq 0.01$  \*\*Significant at  $p \leq 0.05$

Table 4. Comparison of manager and visitor responses to the construct of satisfaction.

stand their visitors. As such, they have the potential to continue maintaining and encouraging visitors to return and enjoy this protected area. Our findings align with a limited body of past recreation research. Rosenthal and Driver (1983), for instance, found that managers had a reasonably good understanding of experiences sought by ski-tourers in the Colorado Rockies. Also in the Shenandoah National Park section of a study by Wellman et al. (1982), park managers predicted motivation items to be consistent with visitor reports. These stud-

ies point to accuracy in managers' predictions of visitor preferences. Hence, the present study provides support for these findings as related to Canyon de Chelly visitor motivation, experience, satisfaction, and authenticity.

It is important to note the differing perceptions pointed out in this study. A number of researchers have highlighted the disparity between manager and visitor opinions (Hendee and Harris 1970; Clark et al. 1971). Several theoretical explanations synthesized by Manning (1999) hypothesize why these opinions may differ. First, managers may project their own feelings into their interpretation of visitor experiences. In this study, we found half of the place attachment items ranked higher by managers, which suggests that they might have reflected their personal views. Often times, managers are more concerned with on-site conditions and report what visitors *should* prefer (Hendee and Harris 1970; Wellman et al. 1982). Second, managers selectively notice visitor behavior and, furthermore, only interact with visitors who might not comprise a representative sample (Manning 1999). We believe that the difference in perceived crowding levels between our sampled groups is exacerbated by managers' perceptions of visitor experiences in densely crowded areas (i.e., the visitor center). In turn, this reinforces existing notions toward appropriate management decisions.

Manning (1999) reviewed a series of prior studies comparing manager and visitor perceptions, none of which, however, took place in a cultural park. The closeness of managers' and visitors' perceptions at Canyon de Chelly may be due in part to the setting of this study. Cultural parks often focus on human aspects of the visitor experience. Thus, managers may be more attuned to visitors' preferences than managers of more remote natural areas. Furthermore, prior research in this area was conducted between 1970 and 1996. It may be the case that managers have improved their understanding of visitors over time. The comprehensive nature of this study, which compared visitors and managers perspectives across six constructs, lends support to the notion that contemporary managers are better able to predict visitor perspectives.

Consistency between the two sampled parties in our study suggests that Canyon de Chelly managers understand their visitors for the most part and thus have potential to select appropriate management strategies. We recommend that future researchers examine manager and visitor perceptions at additional cultural resource parks to determine if the findings reported here are supported elsewhere.

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