

Travelers Increasingly Favor  
Weekend Trips, Survey Finds

*Higher park fees  
don't deter visitors*

Snowmobilers and skiers  
share slopes at Yellowstone

**'The Visitor Experience'** America E.  
**What Do We Really Mean?**

Valuing Wildlife

Economic and Social Perspectives

# VISITOR BEHAVIOR: EFFECTS ON RESOURCES

Americans pummel parks  
with conflicting goals

Visitor Surveys Aid Mount Rainier  
In Handling Management Problems  
aircraft disrupt nature lovers, off-road  
canyon vehicle users collide

Crowds continue to encroach on Yosemite

*Where Have All the Capital's Visitors Gone?*



# United States Department of the Interior



## NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

*REPLICA*

January 24, 1990

**FEB 9 1990**

Memorandum

To: Park Superintendents

From: Assistant to the Director for Science and Technology

Subject: Visitor Behavior as Effects Protection of Park Resources:  
Case Study at Wupatki National Monument

Dr. Robert Trotter, Professor of Anthropology at Northern Arizona University, together with a group of his students, last summer conducted a most interesting study of visitor use and behavior patterns at Wupatki National Monument. The project involved interviews and on-site observations over a seven-week period. This research was carried out as part of the teaching program at the University, with full approval and cooperation of the Monument staff, but at no direct cost to the Service.

A copy of Dr. Trotter's summary report is attached. His observations and conclusions provide insight into issues that are faced in many parks throughout the System, and additionally suggest management actions that might be taken to respond to these matters.....for example, as relates to:

- management of outlying sites that have very limited presence of Service personnel;
- abuse of resources associated with visitor misbehavior and vandalism, or because visitors misunderstand or fail to follow instructions;
- problems that arise because of different levels of behavioral control imposed at different sites;
- visitor responses to active and passive management control actions;
- visitor preferences for different kinds of interpretive activities and educational materials such as: permanent signs and displays; ranger-guided tours; self-guided tours with clearly written trail guides; or roving patrols of Service personnel who are available to respond to visitor questions; and

- needs associated with special populations, such as trail guide brochures written in German, or interpretive materials written especially for children or others who pose a special threat to resources.

This is a good piece of work by Dr. Trotter. I think you will find it interesting and useful. If you want further information about the study, you may contact Dr. Trotter at (602) 523-4521 or Wupatki Superintendent Larry Henderson at FTS 765-7134.



Richard H. Briceland

WASO Social Science Program : Superintendents' Memorandum Series

- #1: Visitor Surveys, November 14, 1989
- #2: Do Parks Make Good Neighbors, November 27, 1989
- #3: The Yellowstone Fires: An Assessment of Economic Impacts, January 4, 1990
- #4: Ongoing WASO Social Science Projects, January 10, 1990
- #5: Visitor Behavior as Effects Protection of Park Resources: Case Study at Wupatki National Monument, January 18, 1990

Summary: Results of Wupatki National Monument  
Summer Ethnographic Field School

Robert T. Trotter, II

## I. Introduction

The Anthropology Department at Northern Arizona University conducted an ethnographic field school at Wupatki National Monument during the summer of 1989. The field school was developed as one element in an existing cooperative agreement between the Monument and the Department. The project was funded by a grant from the U.S. Department of Education, and included a companion archaeological field school at Wupatki Ruin. Both field schools lasted seven weeks. The ethnographic field school research design was directed at understanding the behavior of visitors in and around the visitor center at Wupatki Ruin, and at two outlying archaeological sites which are easily accessible to visitors.

Six students received ethnographic field training in direct observation, interviewing, computer based field note development and management, and ethnographic analysis. Their research education was directed by Robert T. Trotter, II, and supported by two anthropology graduate assistants, Ms. Duffie C. Westheimer and Ms. Lisa M. Leap. The project began with a period of general observations and the discovery of patterns in visitor behavior. The students subsequently selected focused topics for additional observations and ethnographic interviews, to complete the research cycle. The focused topics included visitor interest and beliefs about the monument (Cha 1989), the interaction between Park Service and visitor beliefs about boundaries and permissible behavior (Hopkins 1989), family dynamics at the park (Winkfield 1989), visitor center information services and employee interaction with visitors (Brown 1989), German Tourists at an archaeological park (Orozco 1989), and behavior at outlying sites (Valero 1989). Copies of the ethnographic reports produced by the students are available from the office of the superintendent of Wupatki/Sunset Crater National Monuments, or the Chief Ranger at Wupatki. This paper summarizes findings from the ethnographic field research program.

## II. Background

Wupatki National Monument receives approximately one quarter of a million visitors each year. The heaviest impact is during the summer season, and on holidays during other seasons. The park maintains a steady, but reduced, flow of visitors at all other times. Wupatki is known for its rich archaeological resources, which include 2668 sites with historic significance within a 53 square mile boundary. It is administratively and ecologically tied to nearby Sunset Crater National Monument.

Wupatki is designated, by park personnel, as an "on-the-way-

"to" park. While it is a destination park for local residents, a significant portion of its visitors are either on the way to, or are coming back from the Grand Canyon or other parks. Some are on a grand circle tour of archaeological monuments in the Southwestern United States, with Wupatki being wedged among better known archaeological parks such as Canyon de Chelly or Chaco Canyon.

Wupatki is not easily accessible. To reach it, visitors must enter at the South Entrance, pass by Sunset Crater National Monument, and drive an additional 18 miles into the desert to Wupatki. Or, they must come in the North Entrance and drive an approximately equal distance to reach the visitor's center from that direction. The total loop is about 36 miles and tends to discourage the most casual type of visitors.

Prior to the initiation of the ethnography, interviews were conducted with park personnel to determine the most important issues to use as starting points for our research. They requested that the research effort determine how long people stayed at the ruins, where they went, what interested them, what types of interpretation worked well, and how visitors generally behaved. This agenda was accomplished by periodically timing visitors, unobtrusively following their movements through the ruin, listening to public conversations, and asking a few preliminary questions. From these observations we devised questions to ask the visitors for in-depth information about their experiences in the park.

### III. General Findings on Visitor Behavior

The students found that Wupatki visitors are relatively well educated and are generally more interested in archaeological history than the general population. Therefore, the overall profile of visitors to the park differs from that of visitors to parks that are more easily accessible, and parks that are primary destination parks, such as the Grand Canyon.

Wupatki visitors are predominately middle class Anglo Americans. This trend was determined early on by direct observation of key social markers, such as dress, material items (cars, camera equipment, etc.), and speech patterns. It was later confirmed by direct questions about employment and educational status during interviews. The second largest contingency at Wupatki are foreign visitors. These included individuals from Europe and Asia. The most common foreign visitors are those from Germanic based cultures such as West Germany, Austria, and Switzerland. Numbers of French speaking tourists also visit the park, as well as a sprinkling of people from Japan and other countries. One of the smallest contingencies are visitors from various minority groups in the United States. The students observed Black, Native American, and Hispanic visitors during the course of their research project, but these visitors are the exception.

The average length of stay at Wupatki Ruin, and the visitor center, is less than thirty minutes. In this time frame visitors typically move from the parking lot, into the visitor center, look at the displays and make purchases, and then move beyond the visitor center to the archaeological site itself. About 10 percent of the visitors circumvent the visitor center and go directly to the ruin. Beginning with the overlook to the ruin, people choose amongst several routes which shorten or lengthen their stay.

Some visitors never make it out of the visitor center. They use the toilet facilities, make purchases, ask directions, and return to their cars. It was not uncommon for some of the teenage visitors to not even get out of the car in the parking lot, while members of their family group visited the ruins.

About 20 percent of those who visit the ruin walk out to the overlook, read part or all of the trail guide, and return to the visitor center or directly to the parking lot. The rest go at least part way into the ruin. As many as one third of the visitors miss the sign that points the direction to take around the ruin that corresponds with the trail guide numbers. They end up going around the ruin in reverse order from the numbering system. Most accommodate rapidly to the change by reading the trail guide backwards, but this process does cause some confusion. It also creates a condition that this group of visitors does not have the message "please stay off the walls," reinforced until they make the entire circuit of the ruins.

There are several decision points during the tour where visitors either continue on, or skip some part of the whole tour and leave the ruin. The first decision point is at the overlook. Some people stand there and read the guide without ever getting coming closer than about 50 yards to the ruin. The second major decision point is whether or not to visit the amphitheater. The third is whether or not to go to the ball court and blow hole. Both the retrograde and the normal circuit visitors tend to stop at the top of the trail that leads down to the Ball Court and the Blow Hole, and decide whether or not to continue, or to take the shorter turn around the ruin walk to look at the venues on the back side. Those who do visit the lower part of the monument are among the group whose visit lasts longer than the average. In each instance, it was common for the visitors to read those sections of the trail guide that related to the areas they were not visiting, while looking at them from a distance.

These findings and those below are described and discussed in the ethnographic research reports by Brown (1989), Cha (1989), Hopkins (1989), Orozco (1989), Valero (1989), and Winkfield (1989).

#### A. Sex Roles

Visitors play out a number of Middle Class American cultural patterns as they tour the ruins. The most visible patterns are consistent differences in sex role behavior, and age related role behavior. These include social roles in presenting and recording the information available about the Monument.

After exiting the visitor center, tourists pass a box on a post which contains trail guides for a self-guided tour of Wupatki Ruin. Most single individuals pick up the trail guide, and tour each numbered station independently of other visitors. If the visitors come in a group, then one or more members of the group select trail guides and move around the ruins more or less in contact with one another, depending on the composition of the group and the factors described below.

Couples and families with children tend to take a single trail guide (although children occasionally demanded to be able to have their own separate guides). Usually one of the children or one of the adult males in the family take a trail guide out of the box and carry it to the first station, an overlook of the ruin. There, the trail guide is handed over to the "central" female in the group, who begins to read the guide to everyone in the contingent. The "central" male, in the vast number of cases, at that point takes on the role of photographer. If he is using a still camera, he simply alternates between taking photographs and listening to the reading of the guide. If he is using a video camera, he normally records the sound of the trail guide being read as he pans across various scenes in the ruin.

The behavior of children in family groups depends on the level of social control that the parents exert on them. At one end of the spectrum they stand with the reader and photographer at each station. At the other end, they range far ahead of the parents, paying no attention to the adult roles being acted out around them. This condition is described in more detail in the following sections.

The typical family or mixed sex group pattern is not universal. There were occasional males who read the trail guide out loud to the family or group, and women who did a considerable amount of photography. However, these were less common patterns. The few times we observed males reading to families, most sounded as if they did not have much practice reading out loud. This probably ties into the condition that it is much more common for mothers to read to their young children at bed time, than for fathers to do so in American families.

When individuals come as a members of a single sex group, the most common condition is for everyone to take a trail guide, but to proceed around the ruin together. Occasionally, especially where the group was two or three females, one individual would read the trail guide out loud, in the same manner as with a family group.

It was more common for everyone to simply stay together and to all read silently at each marker, and then to make comments to one another or ask additional questions raised by the trail guide at that point.

There was a very consistent pattern of individuals stopping at each marker in the trail guide, at least long enough to determine whether or not it was a place where they wanted to linger. This produces an excellent passive system for grouping people at key points, and keeping them focused on moving around the ruin to stop in designated areas, rather than getting off the trail or stopping at points where they would cause difficulties for the flow of visitors around the ruin.

### B. Monster Time at Wupatki Ruin

One of the interesting observational findings from our ethnography was that Wupatki Ruin had a special time of day that came to be labeled as "monster time." It appears to be a special form of sex and age related behavior at the ruin.

Monster time begins at approximately 3:00 in the afternoon and lasts until 4:00 or 4:30 pm. During that time period at least one child, and frequently more, would be observed not only standing on walls and getting off the trail, but actively climbing all over the ruin and getting into areas that were far outside of appropriate visitor boundaries.

We developed a basic profile of these children whom we labeled the "monster child." The most common monster was a young anglo male, between the ages of 10 and 13. The child can be distinguished from non-monster children by several characteristics. The monster child normally visits the ruin with their parents, but, from the parking lot or the door of the visitor's center, he moves very rapidly away from the family group, often running (and at least walking much faster than virtually everyone else). The monster always appears to be very full of energy, at a time when the rest of the family is very low on energy. Since this is one of the hottest times at the ruin in the summer months, it is not surprising that he soon moves far beyond any possibility of parental control. The parents tend to be dragging far behind, possibly because they have been cooped up in a car with the monster for the entire day.

The children who fit this profile tend to wear clothing that has bright colors on it, or some logo that indicates rebellion. They move very rapidly into the ruin, and begin cutting trails, walking on walls, and moving into restricted rooms in the middle of the ruin. They continue to exhibit this behavior, regardless of most parental comments, throughout their visit. Most of the time their parents are not close enough to comment to them anyway.

Monster children tend to take signs very literally, as a manipulation device. For example, when interviewed after he had jumped three walls and was climbing up into the middle of the ruin, one boy stated that he had strictly obeyed the sign that said, "please stay off the walls." He had carefully jumped the walls and not touched a single one of them. Another child said, when asked to get off a wall, that the sign which said to stay off the wall was in an entirely different part of the ruin, not right where she was sitting. She felt the sign didn't apply to this particular place, or there would be a sign on every wall.

This latter instance was a bit unusual, in that Monster children are rarely female. We did observe instances of female monster behavior, but almost all were accompanied by males that fit the primary monster profile. Their behavior appeared to be tagged to male monster behavior, rather than being self initiated. In most cases they were simply accompanying a monster male on his run through the ruins.

The ethnographers also noted monster style behavior at the outlying sites, but it was not as easy to confirm the timing on these events. It did become apparent that some of the children who performed monster activities at Wupatki, exhibited the same type of behavior at outlying sites. This was confirmed by direct observation when students moved from one site to another at the end of the day, first observing monster behavior of a particular child in an outlying ruin, and then, when they returned to the visitor center, observing the same child in the Wupatki ruins. It was also confirmed by indirect evidence as notes were compared which allowed the students to recognize similar individuals who were observed in two different locations, by different ethnographers.

### C. General Family Dynamics at an Archaeological Park

Family dynamics were observed at Wupatki, then explored through interviews. We found that families differed greatly in the amount of social control that was exerted over various members of the group, as described above. This issue and a couple more warrant further description.

**Families differed significantly in the purpose they expressed in visiting the monument.** The type of interest expressed often correlated closely with observed behavior in relation to social control. If the family was visiting the monument as a general stop over in an overall vacation (trying to see all of the sites on the map), they tended to maintain far less control of the children, or even encouraged behavior that took members of the family beyond the boundaries of acceptable behavior in the park. If one of the main purposes for the visit was to instill a sense of history, to educate the family and the children in particular about the different facets of the country, then the parents tended to show

respect for the ruins and to demand the same respect from their children. These families seemed to be more concerned about the preservation of resources than those whose purpose was solely entertainment or relief from the boredom of a long drive.

The behavior in the educationally oriented families was relatively consistent. These families nearly always took a copy of the trail guide, and deliberately kept the family together as the guide was read at each numbered point. If the family had small children, one or both parents normally held their hands or carried them. These parents tended to be proactive in teaching the children proper behavior before they had a chance to misbehave. They did not simply wait and react to something the children did wrong, early in the tour they explained to them why they should stay on the trails and not disturb the ruins.

The behavior on non-educationally oriented families differed in nearly all respects. There were far fewer attempts to keep the family together; individuals were allowed to experience the ruin on their own, at their own pace. Far less behavioral control was exhibited, and the incidences observed were nearly always reactive, not preventative. When the trail guide was read, it was sometimes read by one member of the family, with the others ranging on ahead, or to a small group with the rest of the family elsewhere. These differences in family dynamics suggest that at least two different approaches to encouraging appropriate behavior in visitors and their children need to be accommodated by park service personnel.

In addition to the social control issues, a request surfaced from the educationally oriented families that is worthy of serious attention. Many of these families felt that it would be very useful to have a children's trail guide, in addition to the adult trail guide that already exists. Wupatki has a very nice workbook for children, which received praise. But the workbook does not provide much information about the ruin. It provides activities that keep some children busy during their visit, or more commonly, on the road after the visit. The parents, and some of the children, requested the creation of a trail guide that has serious educational content about the ruin itself, but is written at a level that the children could read and understand. The parents felt that this would provide an important educational experience for the children. It would teach them directly about the people who lived at Wupatki and why it was important for the Park Service to preserve this type of heritage.

#### D. Low Park Service Presence Sites

In addition to the main ruin, Wupatki Monument has three other easily accessible ruins at some distance from the visitor center and Park Service offices. These are Wukoki, Lomaki, and the Citadel. These outlying sites are periodically patrolled by park service personnel, but have no permanent Park Service presence

beyond a parking lot, some trails, and a few signs. Observations and interviews at these outlying archaeological sites identified the lack of both physical and social boundaries that could control destructive visitor behavior.

The outlying sites have all been made accessible by roads and parking lots, but they do not seem to receive the same attention for the development of interpretive materials as is expended on the main ruin. They also tend to have far fewer active and passive mechanisms for social control built into them. For example, Wukoki Ruin has a paved trail leading from the parking lot toward the site, and has a sign stating "please stay off the walls, please do not pick up pottery." But the trail runs out about twenty yards short of the ruin. From that point on, the only trails are social trails made by visitors walking into the ruins and walking around them. Only one interpretive sign exists to provide input on what visitors are seeing or what they should do to protect the site from accidental harm. This means that the total protection for the site, which is only periodically patrolled, due to budget constraints, is based on the knowledge and good will of the public. Both of these conditions were observed to be lacking at times.

The results of the research on the outlying sites (see Valero 1989, Cha 1989, Hopkins 1989) indicate that it would be useful to create clear boundaries for visitors, and to use the full range of passive controls that are available for such sites. These controls include well marked paths, increased use of signs to indicate behavioral boundaries, and the use of a trail guide. One of the outlying ruins utilized a trail guide, the other utilized interpretive signs. A comparison of sites suggests that, when used in conjunction with well marked trails and numbered stopping points, the trail guide appears to be an effective passive control system. Signs were less well received and seemed less effective in this regard. The trail guides tend to keep the majority of visitors within appropriate boundaries, as they follow the trail markers. Signs tend to encourage exploration, especially if there were no marked trails, or where there were lots of social trails leading off in interesting directions.

A portion of visitors will not be effected by any form of passive controls. There were far more instances of destructive behavior at the outlying sites, than at the main ruin. We felt that some of this would be mitigated by the above passive controls. But some would only be mitigated by increasing the presence of park service personnel. The constant Park Service presence at Wupatki Ruin reduces the number and the length of destructive incidences, due to frequent movement of personnel through the site. At the outlying sites it is rare for park personnel to patrol through more than once a day. This leaves visitors on their own for major portions of the day. Since the average length of stay at these sites is less than 20 minutes, there is a high turn-over of visitors without any park service contact.

At a minimum, it would be useful to put up unobtrusive but visible signs saying that these sites are patrolled by the park service. This might reduce some of the marginal behavior. It probably will not effect the deliberately destructive behavior of a small portion of visitors. These latter are normally only deterred by direct contact with park service personnel. In some cases, only harsh deterrents seem to work.

### III. General Questions Visitors Ask, or Would like to Ask about archaeological resources

The ethnography students spent several hundred hours interviewing visitors. In addition they recorded natural conversations between visitors and between visitors and park service personnel. This allowed us to explore the types of questions that visitors would like to have answered about archaeological ruins in general, and Wupatki in particular. The specific questions about Wupatki are described in the ethnographies.

The general types of questions that the visitors ask, or want answered would appear to be an excellent guide for the development of interpretive materials, and for training Park Service personnel for interpretive duties. The areas noted below are described in more detail in several of the ethnographic reports.

#### A. Lifestyles

One of the major topics that interests visitors is the lifestyles of the people who lived at the site. The visitor's questions about lifestyles provide an excellent profile for the development of trail guides at any archaeological park.

The most common things visitors wanted to know were, what did the people look like, how big were they (some thought they must have been very small because of the small doorways), what did they eat, where did they find water (a very common question in this desert environment), how did they get the food they ate (did it all come from hunting or agriculture or combinations), what kind of rituals did they perform, what was their language, and what were their religious beliefs. Many people wanted to know about the cycles of daily life and beyond. They wanted to know what kind of game they hunted, and where they found it. They asked when and where the crops were planted and when and how did they harvest them. They wanted to know how all the different kinds of foods were cooked. Others wanted to know if the environment and the climate was the same or very different from the environment (plants, animals, and weather) which exists at Wupatki today. Some were surprised by the amount of technological knowledge that went into the construction of the ruins and wanted to know more about it. Visitors also wanted to know the architectural history of the ruin,

how many people lived in it (and in the surrounding area) at any given time. They wanted to know who the people at Wupatki were related to, who they traded with, and whether or not they engaged in warfare. They also wanted to know where they went when they abandoned Wupatki, and why that abandonment occurred.

#### B. Architecture

The visitors were fascinated with the architecture at Wupatki. The men, in particular, were interested in learning about the construction methods used in the ruin. They wanted to know how the stones were shaped, how the walls were laid, what was used for mortar, and what kinds of tools the people used for construction. The women seemed to be more interested in domestic activities. Where did people do various tasks, and how were the rooms set up for comfort and for useful activities? The women also made far more comments about the aesthetics of the architecture and were interested in how people would create beauty in their lives. Some visitors would also like to be able to easily distinguish between the parts of the ruins that have been reconstructed and what remains of the original buildings.

#### C. The Setting

Tourists wanted to know why the people who built the ruins picked the particular sites they did, instead of nearby sites that looked more interesting or useful, or at least were equally advantageous as a home site. They also wanted to know how the volcano eruptions effected people at the ruins.

#### D. Burials

The trail guide describes a room with an open grave as one of seven infant burials found in the ruins. This marker triggers more questions than almost any other. This seems to be an area of strong interest for Anglo American visitors in particular. People want to know where the other seven burials are, and whether they are all in one room or many rooms. They also want to know more about the beliefs of the people that would cause this custom to occur.

### IV. ~~Boundaries~~ and Typical Types of Vandalism

All of the ethnographers were alerted to watch for, categorize, and to prevent vandalism in the monument. This sometimes created a delicate balance between participant observation and intervention. We needed to see what was happening, in order to record it and understand it. But as the summer went on, all of us became increasingly committed to the monument and increasingly militant in our protection of this irreplaceable resource.

One of the students made the boundary issue the focus for her

ethnographic research. In her paper, "Wupatki Trail Boundaries: Steps in the Right Direction," Hopkins (1989) describes boundary ambiguities and misbehavior of visitors in a step by step tour of Wupatki Ruin. She also identifies nine forms of ruin abuse, and provides profiles on the location and frequency of these forms of vandalism, along with recommendations for reducing both their severity and their frequency.

The anthropological literature would predict that the strongest agreement about the size, shape, and purpose of physical and behavioral boundaries would exist among Park Service personnel. It would also predict that much of their beliefs and knowledge about these boundaries would not be shared by visitors until, or unless, visitors were educated about their existence.

This differential in knowledge creates a classic condition of having two interacting groups, one of which controls special cultural information that the other does not. The normal condition is that the special knowledge group believes or expects that their cognitive patterns are shared. This is the reason that doctors are confusing to their patients when they use "medical talk," instead of using normal social language to educate their patients about a problem. In the same vein, we discovered there is a Park Service culture that includes a relatively well shared cognitive map of the "proper" boundaries in the monument. As predicted, it is not adequately shared by visitors. Hopkins found this creates problems of a number of varieties, including confusion over boundaries in the monument.

No culture is completely homogeneous. We found variation in the boundary beliefs among various groups of individuals working in the park. The full time staff and the seasonal staff shared profession orientations and standards that tended to make them relatively consistent in pointing out both physical and behavioral boundaries. More variation was noted between these people and the volunteer staff. But all of the staff controlled tacit knowledge that was not easily accessible to visitors. As one of the students stated, the inconsistencies in the beliefs of the personnel, combined with a lack of definition of some of the boundaries, leads to "loopholes" that make it easy for tourists to be legitimately confused about entering an out-of-bounds room or wandering onto a social path.

Loopholes also allow deliberately destructive individuals to manipulate the situation, since the staff is anxious to maintain positive relationships with the public. One example Hopkins cites is that people who visit the outlying ruins, where there are few clear boundaries, expect to have the same freedom of access at the main ruin. They occasionally become irate when confronted by official requests to not pursue behavior at Wupatki that was not clearly controlled at Wukoki or the Citadel. The inconsistency of the controls placed on visitors can lead to confusion and other

more serious problems.

The information provided in Hopkins' report acts as an excellent model for similar studies at other sites and could be useful for establishing and maintaining workable boundary controls for archaeological parks.

#### VI. Interpretation Modalities

Visitors expressed clear views about their preferences for different forms of interpretation (see Cha 1989, Valero 1989). In general, the strongest preference was for a trail guide that allowed for a self guided tour of the monument or ruins. The trail guide allows people to go at their own pace, to control their experience, but to have relatively dense information. It was preferred over both permanent signs and ranger guided tours.

Interpretive signs received positive and negative comment, depending on their function. Small signs at Wupatki which gave the names of various plants and their uses received very favorable comment. They were scattered unobtrusively at various locations and draw consistent positive interest from visitors. On the other hand, large interpretive signs, such as the single sign at Wukoki, were often ignored or actively disliked. Comments about them included a dislike of having to crowd around a sign with other groups and the difficulty of reading the sign in the glare of desert sunshine. Visitors also pointed out that you cannot get as much information on a sign as you can put in a brochure; or, if you try to put up as many signs as would hold the information in a trail guide, the place would be littered with signs.

Ranger guided tours received both positive and negative comment. The trail guides were preferred by many, but others (perhaps those who learn better verbally than visually) gave them high marks. Some people seemed to tolerate ranger lectures in order to have the opportunity to ask questions about the ruins. In all cases, the requests were for short general lectures, followed by a time to ask individual questions of the Rangers.

In every instance we observed park personnel on patrol, they were stopped by visitors and asked numerous questions about the ruins and the people's lives who had lived there. This is probably one of the most subtle and effective of all of the interpretive and educational modalities available to the park service. Brown's report (1989) and my own observations indicate that there is wide variation in these "interpretive patrols" between park service professionals and volunteers. But in all instances people expressed serious interest in this personalized form of interpretation. It appears to be one of the key forms of education that can occur about the Park Service mission and the importance of the resources in a Monument. It is also the most sensitive to budget reductions and to moving from a professional to a volunteer work force in the

parks.

#### V. German Tourists

Approximately 20 percent of the Wupatki visitors have a germanic cultural background. While their behavior at the ruin did not differ significantly from other visitors, two conditions did arise from one of the research projects (Orozco 1989) that are important to note in this summary.

First, there was a general desire on the part of these visitors to have a greatly expanded german language trail guide. Most of the Germans visit a variety of archaeological sites throughout Arizona, New Mexico, Colorado, and (less frequently) Nevada and California. They are very well educated, as a group, and have a high level of interest in U.S. prehistory. They commonly read books about the Southwest prior to traveling to the region. The existing interpretive materials provide far less detail than they would prefer. This eliminates their opportunity to compare various sites, unless they read English.

One of Orozco's findings was that many of the German visitors had developed an interest in American Indian cultures, and in U.S. prehistory, on the basis of reading children's books written by a german children's author named Karl May. Mr. May wrote a large number of highly romantic books about Indians, and their treatment by the dominant U.S. culture, at about the turn of the century. Many of the visitors, especially those over forty, came to the Southwest with expectations of experiencing contact with Indian groups, and to play out childhood dreams. The younger visitors were less likely to expect things to be the same as Karl May portrayed them, but none the less, many had read his books and gained an interest in the region because of them.

One recommendation that comes from this discovery is that it would be useful for the interpretive division of NPS to do an analysis of two or three of Mr. May's most popular children's books. This would allow for the development of interpretive materials for German visitors which could better meet the expectations of this audience, and at the same time would serve to clarify issues that might be raised by the specific historical and romantic views portrayed in his books.

#### V. Summary and Conclusions

Ethnography turned out to be a valuable tool for determining visitor's beliefs, their ideas, their knowledge, and their behavior. It allowed us to discover generic data that can provide information useful to the protection and interpretation of all archaeological parks. It simultaneously allowed us to explore issues that were unique to the conditions at Wupatki.

Ethnography provides a vehicle for comparing what people did at the ruins with what they said about them. We allowed the visitors to identify important issues by observing their behavior, listening to their public conversations, and then by asking them directly about what they thought and what their beliefs are about the monument. We followed up on those leads with more observations and more interviews on those subjects. This created a condition where we were not only attempting to discover information that park personnel felt was important. It allowed us the luxury of discovering issues that were imbedded in visitor behavior, but had not been previously identified as critical to preserving park resources.

The results, summarized above, are compiled in a series of ethnographic reports which are rich in details that have direct practical use in addressing key Park Service management concerns. The reports include profiles of what visitors want to know about archaeological sites; what forms of interpretation are liked and disliked, and for what reasons. They include an exploration of the ambiguity over behavioral boundaries within the park, why that ambiguity exists, and points of contact where a clarification is necessary. The reports include suggestions for better, and more coordinated publicity about the parks, as well as people's opinions on different forms or philosophies on preservation. They provide details about the reasons why people choose to visit the park, what they expect to see, how they feel about the monument and the impact it has on their understanding of the world around them. Each provides a set of recommendations for preservation of current services, and recommendations for change. One set of recommendations comes from the park visitors themselves; telling what they liked, disliked, and want to see preserved, in their own words. The other set is recommendations from the ethnographers who worked long hours trying to understand human behavior in the monument. In the process we came to value Wupatki and the people who work there very highly. We hope our efforts will make their tasks easier and more rewarding.

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