

NATURAL RESOURCES INTERPRETATION: THE ROLE OF RESEARCHERS A NEW-OLD APPROACH

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Abstract: For the past several years interpretive programs for visitors at Isle Royale National Park have included presentations by natural resources researchers. These researchers are presenting the findings of their Lake Superior and Isle Royale National Park research directly to the public. This cooperative and developing project involves many individuals representing many fields in a joint venture bringing together Michigan Technological University (MTU) and the National Park Service (NPS) personnel. Park personnel and University staff have been very supportive of these successful efforts to create an additional interpretive experience for Park visitors.

Background

When Americans think of their National Parks, the image of the Park Ranger is one that often comes to mind. For many visitors, the Ranger campfire program was and still is one of the main sources of information and interpretation of the Park unit that they are visiting. While Ranger duties are numerous, it can be said that interpretation remains the most public and identifiable component of the National Park Service (NPS) Ranger activities. Public education has been part of park visits even before there were park rangers. It has been said that the first park naturalists were the university professors that did public presentations in Yosemite National Park starting in 1919. These researchers were there at the invitation of National Park Director Stephan Mather. Both the naturalist programs presented by the concessions and the presentations by the professors were instrumental in the development of the interpretive programs of later years (Albright, 1985). Many of the early park naturalists were employed as professors, teachers or natural resources researchers. These early efforts are very similar to the project at Isle Royale National Park which is why this paper recognizes past NPS efforts.

Over the years there have been improvements and directives in the manner that interpretation should be presented to the public. One of the most notable was Freeman Tilden's book, *Interpreting Our Heritage*, written in the 1950s. This book is still recognized as a useful resource by many NPS personnel. In his book, Tilden outlines six principles of interpretation that are still considered useful guidelines.

The Isle Royale project suggests an expansion and continuation in the concept of public presentations by researchers that was first seen in 1919 at Yosemite. This project is a cooperative educational and interpretive approach within the NPS that could complement and be

included in Interpretive Ranger programs. This effort involves natural resource researchers or scientists presenting the results of their research directly to the public rather than in presentations by NPS Interpreters. Many National Parks include natural resources research information in their interpretation ranger training yearly, but it has been reported that this information is not always integrated into the rangers programs (NPS interview, Acadia, 2001).

For the purpose of this paper, interpretation can be defined as a method for "people (to) communicate the significance of cultural and natural resources" (Knudson et al., 1999, p. 4). As already indicated, traditionally National Park interpretation has been performed by naturalists or Park Rangers referred to as interpreters. The interpreters provide programs, exhibits, and educational opportunities for the public (Mackintosh, 1986). These Ranger programs have been a very popular component of NPS efforts to educate and inform the public about Park issues.

The Isle Royale project suggests a different educational and interpretive approach within the NPS because it involves natural resource researchers presenting the results of their research directly to the public rather than in presentations by NPS interpreters. Researchers in cultural resources have for many years presented their findings directly to the public in many settings, but public presentations are more unusual for the natural resources researcher.

NPS research is often funded by the public through taxes and donations yet generally not understood or even seen by those that pay the bill. Research results are generally presented at conferences to an audience of other researchers. Studies may be published in journals that researchers view but are rarely read by the general public. There are exceptions including the annual report of the wolf-moose study conducted by Dr. Rolf Peterson of MTU that is published by the Isle Royale Natural History Association.

This project is referred to as a "new-old approach" in recognition of interpretation done by researchers in other fields. For example, interpretation has been done by cultural researchers here in Michigan at Fort Michilmackinac for forty years. At that park archeologists are viewed by the public while they are conducting their research by uncovering the old fort sites and interpreting the artifacts as they are uncovered (DNR, interview 1999). This Michigan State Park is a good example of cultural resource researchers interacting directly with the public in a manner that happens in many parks in this country. There are park units that have a few presentations by researchers during a season, but none to my knowledge are attempting the numbers of programs that the Isle Royale project has already successfully accomplished. There are also a small number of NPS units that are starting to suggest an incorporation of researchers into their interpretive programs (NPS, 1999). One example is the conference that Fire Island National Seashore provides biennially where the public can hear researchers explain their studies (NPS interview, 2001).

Isle Royale National Park

Isle Royale National Park is the project site and there are many park personnel that are very supportive of these efforts. Isle Royale was authorized as a National Park in 1931 as one of the nation's first nature parks rather than a scenic park (Runte, 1997). Isle Royale National Park is an archipelago of 400 islands, located within the northwest corner of Lake Superior. The islands, which include the largest island in Lake Superior, vary in size from over 40 miles in length to only a few square feet (NPS, 1995). In addition to the islands, the National Park Service manages the surface of Lake Superior four and one-half miles out from the shoreline. This results in approximately 80% of the Park consisting of water (Isle Royale National Park Pamphlet, 1996). The total area of the Park is approximately 571,790 acres of which approximately 133,782 acres are land. (National Park Service, 1995). In 1976, 98% of the land area of the Park was designated as Wilderness by the federal government. This percent has since been increased to 99% (NPS, 1995). Today, Isle Royale National Park remains one of the largest federally designated wilderness areas in the Midwest. In 1980, the United Nations declared the Park an International Biosphere (DuFresne 1991). This designation is one indicator of the importance of the natural resources in this park for all peoples of the world. Isle Royale National Park is one of the least visited parks in the National Park system, due in part to the difficulty in traveling to it. The total number of annual visitors is less than 20,000 (Isle Royale Report, 1999).

Isle Royale Project

This project involves the presentation of a new format of interpretive programs on board the ship *Ranger III* as it crosses Lake Superior with Isle Royale National Park visitors. *Ranger III* is a 165-foot ship operated by the National Park Service and carries up to 125 passengers per six hour trip. This ship makes approximately 64 round trips from Michigan to Isle Royale National Park per season. Park Interpretive Programs traditionally have been offered to the visitors by a NPS Ranger to prepare them for their visit to this wilderness national park. These Ranger programs have presented topics such as rules/regulations of the Park, safety, and low impact camping. Since 1996, programs have been expanded to include presentations by researchers discussing the results of their research at Isle Royale. The topics of those presentations have included wolf-moose balance, Lake Superior, geology, remote sensing, astronomy, habitat fragmentation, frog, flower and bird studies, climate change and loon research. The impact of these presentations by researchers on visitors' knowledge and attitudes has not yet been studied.

During the summer of 1999, researchers used a large screen television and a computer to display their research directly to the public as part of their interpretive presentations. These presentations incorporate technology through the use of computers (PowerPoint) as well as being able to display research as it is generated. This "real-time" data display is

unusual in the field of natural resources interpretation. Some researchers onboard the *Ranger III* present their data, using this technology, directly to the public as soon as they receive it. For example, Lake Superior water study data (primarily temperature) is collected from the *Ranger III* using probes. When these probes are dropped into the lake they transmit their data directly to the researcher's computers onboard the ship and then this data can be displayed to the public.

How Effective Are These Programs?

The public has responded very positively, both verbally and in writing, to programs by natural resources researchers. While there is interest in expanding these presentations, it would be useful to understand the impacts of presentations by researchers on visitors experiences, knowledge, and behavior during their Park visits; as well as the researchers' presentation style on the audience's enjoyment and education. What do Park visitors experience and learn due to their direct involvement and exposure to natural resources research?

Proposed Procedures

- To qualitatively interview Park visitors during summer of 2001.
- To assess impact by collecting informal feedback from Park visitors and staff.
- To develop and pilot an instrument during 2001 that will assess impact of the project to be used during summer 2002.
- To administer the instrument to Park visitors during the summer of 2002.

Conclusion

I believe this project will be of interest and benefit to at least three groups. First, the National Park Service will be able to better understand the public's ability to learn from interpretive programs and therefore be able to add to the present formats of programs being presented. The second group that could benefit are the researchers and their related institutions. They will have a better understanding of useful approaches to the public in presenting their research. Finally, the public may develop a greater understanding of and interest in the research that is occurring in the National Parks. Through that understanding, there may be a change in behaviors that adversely affect the Parks and their resources. Additionally, the public may become more supportive of the financial needs of the Park Service and related research efforts.

One side benefit of this research project is that it is not limited to a narrow field of interest but rather it could appeal to anyone who wants their research better understood by the public. Additionally, researchers may find presentations beneficial in meeting with other researchers. An example of this occurred when two different groups of researchers became aware of each other's efforts that are similar during a presentation.

Finally, the public may be the biggest beneficiary of this project. Last summer after participating in one of the "real time" programs, an individual exclaimed that it was the first time he had been treated like an adult in a National Park interpretive program in several years. He concluded by saying that unless you are exposed to programs that are over your head you will not learn (Park Interview, 2000).

Another visitor to Isle Royale National Park wrote the following to the Park Superintendent, "I believe the National Parks were created under the same guidelines as the Constitution. They were created by the people for the people. If the people do not feel welcome, they will cease to come. If they cease to come, they will cease to bring their children. These children will be the ones who will inherit Isle Royale. If they do not know her, when the time comes for funding cuts, they will not hesitate killing something they do not know" (Personal letter, 1998). The Isle Royale Project is one of the many cooperative projects that are being undertaken by the NPS and researchers to help our park visitors understand the unique resources that we all have inherited.

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