



Expedited Approval for NPS-Sponsored Public Surveys

1.	Project Title Submission Date:	Interpretation Study: Gulf Islands National Seashore	September 19, 2008
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2.	Abstract:	The National Park Service has contracted Amaze Design to develop exhibits for an interpretive visitor center at the Gulf Islands National Seashore (GUIS). Amaze Design – working with People, Places & Design Research – seeks to test alternative ways of making the exhibit content more accessible to select audiences (visually impaired and Spanish-speaking) with an audio system for interpretation. The purpose of this study is to explore whether audio approaches are enjoyable and beneficial to visitors and what characteristics of the approaches enhance or inhibit their use by these audiences. This study will be conducted as a formative study. Small samples of potential visitors will be invited to use one or more of the alternative audio systems and then will be interviewed about their experience. The focus will be on two audiences: visually impaired and Spanish-speaking residents of the region. The results will provide useful insights that will inform the park’s investment in accessible exhibit technologies for diverse groups.	
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3. **Principal Investigator Contact Information**

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4. **Park or Program Liaison Contact Information**

First Name:	<input type="text" value="Krista"/>	Last Name	<input type="text" value="Kovach-Hindsley"/>		
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Park:	<input type="text" value="Harpers Ferry Center"/>				
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Project Information5. **Park(s) Where Research is to be Conducted:**

Gulf Islands National Seashore (GUIS)

6. **Survey Dates:**

6/1/2009

(mm/dd/yyyy)

to

6/20/2009

(mm/dd/yyyy)

7. **Type of Information Collection Instrument (Check ALL that Apply)**

- Mail-Back Questionnaire

- On-Site Questionnaire

- Face-to-Face Interview

- Telephone Survey

- Focus Group

- Other (explain)

8. **Survey Justification:**

(Use as much space as needed; if necessary include additional explanation on a separate page.)

Social science research in support of park planning and management is mandated in the *NPS Management Policies 2006* (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning, development, operations, management, education, and interpretive activities.

A "front-end study" about exhibit themes and concepts has already been completed for this project (OMB #1024-0224 NPS #07-001). Concern about the possible experiences of visually impaired visitors and Spanish-speaking visitors that were uncovered in the front-end study has prompted an NPS commitment to provide some type of audio interpretation to the proposed exhibits. This formative study will inform the choice and format of that audio enhancement.

There are many assumptions, guidelines and opinions about how to make museums more accessible for visitors with visual impairments, but there is very little empirical research about the effectiveness of various recommendations. Only a handful of journal articles have appeared since 1990 about this issue. Most of the studies are qualitative (not quantitative) due to the difficulty of getting more than 12 visually impaired people to come to a museum and participate in the research. There are conflicting conclusions about what strategies are optimal, and many questions remain unanswered. In a focus group (Owens Renner & Adams, 2003) some visually impaired people suggested that they would prefer to push a button at the exhibit to get auditory information rather than carry a hand-held audio tour device because they need at least one free hand for their canes or guide dogs. However, in actual practice in a museum designed for the blind, it was observed that usage of push button audio information was very low (Simon & Asensio, 1996). A cell phone audio tour (and navigational system) was developed and used successfully in a pilot study at the NY Hall of Science (Landau & Giusti, 2004). Some participants thought that earphones would help them focus on the exhibit interpretation (by cutting down the ambient noise level in a busy museum). However, the hearing impaired depend heavily on sounds in the environment for navigation (Gustafson-Pearce, Billet & Cecelja, 2007), so perhaps it would not be a good idea to conceal these sounds with headphones. It may be that there are

advantages and drawbacks with any audio device (cell phones, headphones, audio wands), but we need to know more about them in order to make informed decisions.

We know that some museums (especially large museums in big cities) have developed audio tours in multiple languages for their diverse international and community visitors. However, there are only a handful of journal articles in the past 10 years where museums have shared their experience with audio tours or with other interpretive strategies for non-English speaking visitors (bilingual labels, handouts, interpreters, etc.). None of these articles describe empirical research. Early front end research for GUIS observed that Spanish speaking audiences have some interest in print or audio presentation of interpretation and perhaps a mild preference for audio.

The purpose of this formative study is to investigate potential visitors' likely use of and experience with audio interpretation. The results will provide useful insights that will inform the park's investment in accessible exhibit technologies for diverse groups.

The research objectives are to:

- Determine whether these specific audiences are likely to be interested in a form of audio interpretation.
- Determine whether people have a sufficiently satisfying experience with any or all of the three forms of audio interpretation: 'headset' audio (wear it, carry the pack), 'cell phone' audio (audio clips retrieved by codes typed on a cell phone) or 'wanded' audio (carry a wand, buttons keyed to specific exhibits). If preferences for one or another audio approach are expressed, such preferences will be noted.
- Identify participants' likes and dislikes regarding any of the alternative audio approaches.
- Identify characteristics of the audio system alternatives (e.g., physical apparatus, connection between audio and exhibit, instructions for use) that may improve or detract from the experience of participants.

9. **Survey Methodology:**

(Use as much space as needed; if necessary include additional explanation on a separate page.)

- (a) **Respondent universe:** There are two primary populations that would be served by an audio supplement to the interpretation of these exhibits: visually impaired visitors and Spanish-speaking visitors.
- (b) **Sampling plan/procedures:** Adult participants (age 18 or over) from the above target audiences will be recruited using multiple strategies: including:
- 1) for people who are primarily Spanish speaking, contacts with local churches who serve Spanish audiences will be used to tap into a network of area residents (e.g., Our Lady of Fatima, Catholic Diocese of Biloxi); in addition, some people who helped with the logistics of the previous front-end research will be contacted to supplement these prospects (e.g., the co-facilitator for the Spanish-speaking focus group from that study)
 - 2) for visually impaired people, local organizations in nearby Gulfport and Biloxi (e.g., Mississippi Center for Visual Impairments, Low Vision Support Group of Ocean Springs) will recruit participants; in the event that such recruiting is too limited in numbers, the venue for this sample will be moved to a larger city with the expectation of reaching a larger pool of potential respondents (e.g., Mobile, AL).

We will seek feedback from 50 individuals – 25 in each of these two target audiences. We estimate that up to 120 individuals may need to be approached to achieve this final sample. Even with invited audiences, and with compensation payments of \$35 (to facilitate a schedule of people arriving at timed intervals and possibly having transportation costs to participate), we estimate that we will need approximately 70 people to agree to participate in order to have at least 50 people who actually participate.

Safeguarding of personal information: During the recruiting process, the researchers will collect names and contact information for prospective participants (a reminder letter in Spanish and English for the Spanish-speaking participants, or a phone call for the visually-impaired participants will be made in advance of the testing days, including directions). Contact information will be secured in the researchers' office throughout the study and destroyed at the end of the study.

- (c) **Instrument administration:** This study will be conducted in a public location (e.g. church, community organization, NPS site) in the Gulfport-Biloxi area (or Mobile, Alabama if enough suitable participants are not available in Mississippi) that is easily accessible to the target audiences. Participants (potential visitors from the two target audiences) will be greeted when they arrive, and invited to use each of the three audio options (headset, cell phone, wand) sequentially, in any order they choose (participants will have been asked to bring a cell phone with them; if they don't normally use a cell phone or do not want to use their phone, we will provide a disposable cell phone for their use). When they determine that they are finished experiencing the exhibit prototypes (some with tactile elements) and audio options, participants will be interviewed. An experienced facilitator from the PI's office will

participate in and supervise the administration of the interview, supplemented by locally-hired independent interviewers. Interviewers for the Spanish-speaking audience sample will be bilingual, conducting the interview in English or Spanish as appropriate to the respondent's skills, but they will record answers in English or translate answers into English after the interview is completed. Interviewers for the visually-disabled respondent sample will be coached regarding the needs and skills of that audience. These interviewers will speak English, although they may also be bilingual if the final sample indicates this is needed. With both samples, a "greeter" will welcome participants when they arrive, compare names and times with the schedule established by earlier sign-ups, introduce or remind people of the purpose of the study, explain the procedures for using the three audio forms of interpretation, and explain that an interviewer will be available to get their comments and reactions when the participant is ready. For the Spanish-speaking sample the greeter will be bilingual; for the visually impaired sample the greeter will have experience working with visually impaired people.

- (d) **Expected response rate/confidence levels:** We expect about 40% of those initially contacted to participate in the study. Because this study seeks primarily qualitative information using purposive samples selected from targeted groups, there is no statistical basis for generalizing the findings to all visitors. Therefore, response rates and confidence levels/intervals do not present the same concerns as they do in quantitative studies based on probability samples and employing inferential statistical analysis. The primary information will be about likes and dislikes regarding the audio system alternatives.
- (e) **Strategies for dealing with potential non-response bias:** Because this study design is qualitative and uses purposive samples selected from targeted groups, non-response bias is not an issue for this study.
- (f) **Description of any pre-testing and peer review of the methods and/or instrument:** The interview form for this research method (see attached) is of a style that has been used in several other projects by evaluation professionals at the PI's firm (People, Places & Design Research). It has been reviewed by content planners on the Amaze Design team and by NPS representatives.

10.	Total Number of Initial Contacts Expected Respondents:	120	50	11.	Estimated Time to Complete Initial Contact Instrument (mins.):	4 min.	30 min.	12.	Total Burden Hours:	33 hrs.
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13.	Reporting Plan:	A final report will be prepared by People, Places & Design Research and will include a summary of the interview method, a summary of information obtained, and an analysis and interpretation of the results. That written report will be submitted to the NPS liaison and Amaze Design for review and comment. Following clarifications if needed, the report will be formally submitted to NPS and archived with the National Park Service Social Science Program.
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