Filoli: Designing a more engaging visitor experience
Ethnography in action

OVERVIEW:

**Situation Analysis**
A National Trust for Historic Preservation site and California State Historic Landmark, the Filoli Center is dedicated to preserving and sharing the natural history and cultural traditions of its 20th-century, 654-acre estate. Since part of Filoli’s mission is public education, the estate features a historic house with interpretive exhibits that visitors can explore. Filoli collaborated with PARC to provide a testing ground for a new electronic guidebook technology with its visitors.

**Insight**
As shared public spaces, museums are often visited socially by pairs or groups – yet most guide approaches discourage social interaction among visitors. For example, docent-led tours typically feature minimal interaction, and audio guidebooks with headphones isolate visitors from their companions.

Based on observations of how Filoli house visitors naturally engaged with audio guidebooks, PARC ethnographers realized that visitors wanted to listen to descriptive information together and share “listening spaces” with each other. So PARC used these observational insights to integrate desired activity features into an audio guidebook system that could facilitate social interactions between visitors.

**Process/Methods**
PARC social and computer scientists developed and refined their audio guidebook prototype (called “Sotto Voce”) in an iterative process that involved observation, analysis, design, field evaluations, and technological innovations.
By analyzing the contours of visitors’ conversational interactions, PARC ethnographers realized that visitors preferred to listen to audio content together through the speakers in the handheld electronic guidebook. But, the setup for shared listening was particularly cumbersome: (1) visitors had to collaboratively identify an object of interest and find it in the guidebook, (2) then they would have to stand close together and restrict their movement, and (3) fully open-air speakers would be too disruptive to other visitors who were exploring the exhibit.

Results
PARC incorporated visitors’ desires for shared listening into the audio guidebooks by:

(1) Using modified headphones with one ear available for social interaction, and
(2) Building an “eavesdropping” mechanism into the Sotto Voce system that coupled two guidebook devices to deliver the same audio content to each visitor at the same time.

This key refinement allowed visitors to wander freely to explore the objects they were hearing about while preserving the social connection with their companions. The eavesdropping mode could be shut off for visitors to explore the exhibits independently.

By going beyond mere usability and usefulness, PARC ethnographers enhanced the social aspects of exhibit visits. The resulting Sotto Voce system:

- Enabled exhibit visitors to coordinate playing audio descriptions to each other and move untethered around the space while remaining co-located with companions
- Created a balance between visitors’ control of their own experience and their desire to share with one another – while maintaining their awareness of the larger social context and without interfering with others’ shared listening spaces
- Incorporated an easy-to-adopt, intuitive interface that supported visitors during even brief duration of use

Visitors reported higher quality interactions with their companions, more enriched conversations about the historic home’s objects and history, and an enhanced experience overall.