Evaluation at Rincon Park – Lessons Learned about Audience and the Evaluation Process

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June 2005

THIS IS **NOT** A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
  - small sample sizes
  - expedited analyses
  - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
  - a focus on problems and solutions, rather than successes
  - a change in form or title of the final exhibit/program

Outdoor Exploratorium
Evaluation at Rincon Park – Lessons Learned about Audience and the Evaluation Process

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BACKGROUND

This report documents the evaluation plan, general findings about observing and interviewing people, and other lessons learned from the first set of formative evaluations done at Rincon Park for our Brannan Street Wharf exhibits. This set of evaluation studies was conducted for three days in June during which the team moved, assembled and set up 6 prototypes at Rincon Park and a team of evaluators observed and then interviewed people as they stopped and used our exhibits. We selected Rincon Park as the surrogate site for prototype and evaluation work while Brannan Street Wharf is under development. Brannan Street will not be ready to host exhibits until late 2007, but the team needs to learn and address the challenges of developing exhibits for the outdoors, specifically by the Bay, for the area's audience before 2007.

The team developed an initial set of prototypes that was diverse in content and intended experience. Also, different prototypes were at various stages of development. Consequently, our observation and interview instruments were tailored to suit the needs and goals of each *individual* exhibit. We postponed addressing questions about the relationship between different exhibits at a site for a later set of evaluations, when the exhibits are further along and after the team had discussed issues of coherence and site presence. Results for the individual exhibits can be found in their respective reports.

Nonetheless, we did ask some questions and made some observations that were not specific to a particular exhibit in order to help us better characterize our audience and to identify challenges to doing evaluation outdoors at this site. Our findings and impressions are documented in this report.

THE EVALUATION PLAN

Main Considerations

Data Collection Times

Based on previous observations at Rincon Park and at Brannan Street Wharf, we selected three days and time to collect data:

Thursday	June 2, 2005	10:30 am – 2 pm	(No ballgame)
Thursday	June 9, 2005	10:30 am – 4:30 pm	(Ballgame at 12:35 pm)
Sunday	June 12, 2005	10:30 am – 5 pm	(Ballgame at 1:05 pm)

We wanted to be out during peak hours to collect as much data as possible, but we intentionally picked the first day to *not* coincide with a ballgame at nearby SBC Park. This was to give us a first day when we would not have to worry about the crowds that would come through Rincon on their way to and from a ballgame.

We also scheduled days between evaluation so we can make changes to any part of the process that wasn't working and to give the team a break between these busy days outdoors. Conducting evaluation on 3 consecutive days would not have given us any time savings in setting up our prototypes since we could not leave anything on-site unsupervised overnight.

Creating a 'Context'

We were particularly concerned about creating a 'context' for using interactive exhibits outside the Exploratorium museum context. There is one large art piece at Rincon Park; science exhibits would be something new and unusual for visitors to come upon in this space. We were not sure how visitors would behave around these exhibits, if they would even stop let alone use or engage deeply with them. To try to set a 'context' for interaction, we focused on:

- Creating a physical presence – To help establish a physical presence at Rincon Park, we planned to go outside with at least 4 exhibits on each day. We also decided to try to cluster exhibits along the main pedestrian path. Of course, some exhibits had to be positioned in certain areas (e.g. by the water and along the railing) in order for them to work, but when possible we placed exhibits close together. Figure 1 and Figure 2 show where each exhibit was set up.
- Orienting the visitor to what's going on – We used signs, shown in Figure 3, to let people know what these exhibits were, who built them, and why they were here. The signs also encouraged people to use our exhibits and to give us feedback. These signs were place along the main pedestrian path and pointed to our exhibits.

Figure 1. Exhibit Locations (June 2)

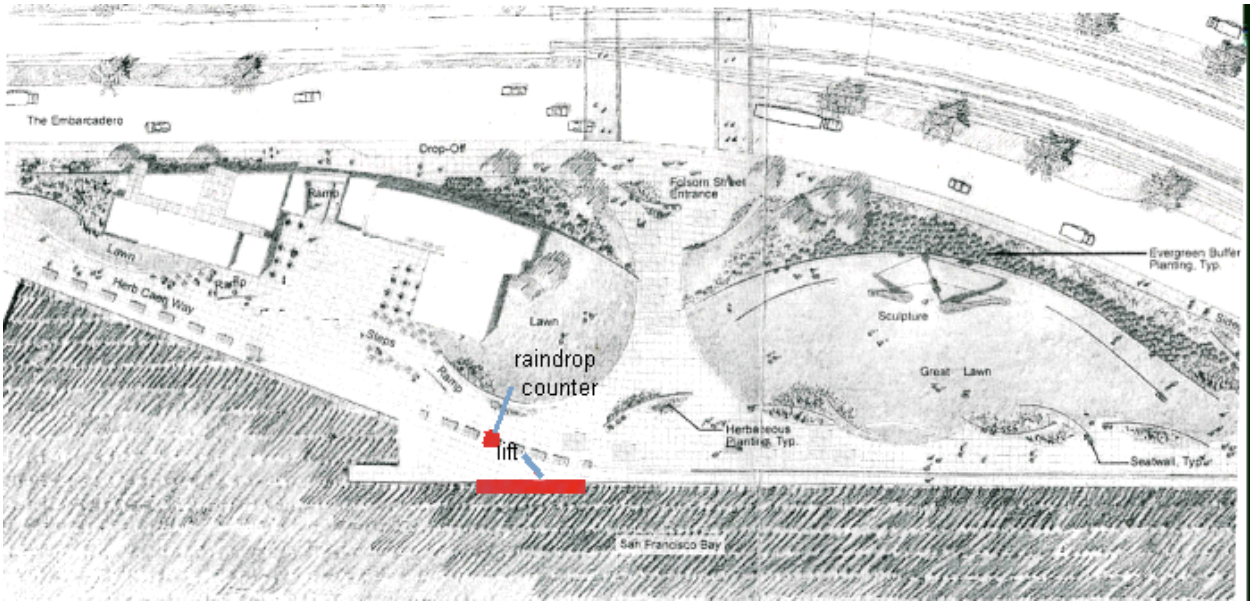


Figure 2. Exhibit Locations (June 9 and June 12)

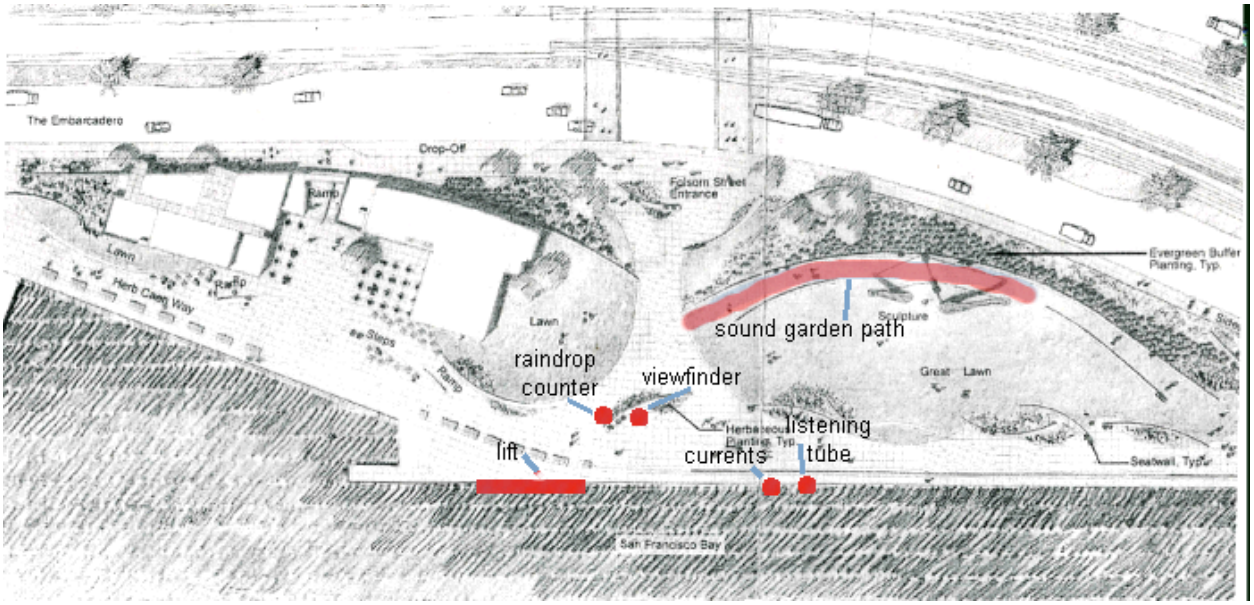
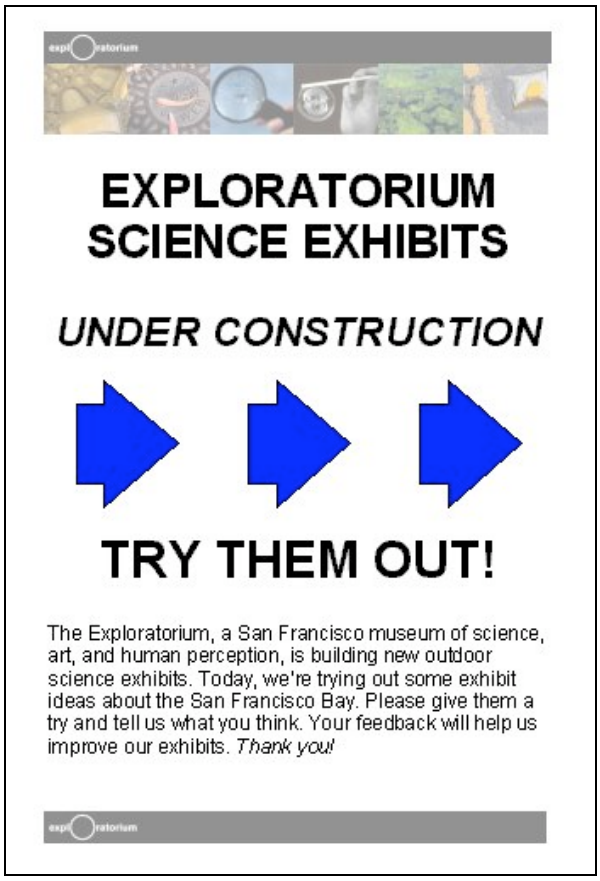


Figure 3. Orienting Sign



Approaching the 'visitor'

We decided to use uncued observations and interviews for all of our exhibit evaluations. This decision was made in part because we believed it would give us more authentic visitor behaviors and responses. But, we were also apprehensive about approaching people who did not know what the Exploratorium is, who were in the middle of another activity, and who did not elect to engage on any level with us or our exhibits. (We believed that these issues are not as relevant to approaching visitors in a museum but do become important considerations when dealing with an audience, predominantly passer-bys, outside a museum setting.) We wanted, at all times, to be respectful of people's time and to allow visitors to *elect* to engage with us first, through our exhibits.

We also were very conservative about approaching children and teenagers. Unless they were with an adult guardian, we chose not to observe or interview them.

All of the evaluators wore nametags with the same look and feel of our orienting signs and exhibit graphics. They all clearly identified us as being Exploratorium staff. We also made sure to identify ourselves when we first approach a person for an interview.

We did not pay any attention to tracking individuals as they moved from exhibit to exhibit. Instead, an evaluator was assigned to 1 or 2 exhibits at a time. Therefore, we did not have an easy way of identifying which visitor we had already interviewed for an exhibit s/he had previously visited. We depended on random selection and on visitors' comments to help us avoid interviewing the same person more than once during our evaluations.

The Exhibits

We intended to collect visitor feedback for 9 prototypes. However, because some of them were not ready or could not be set up at Rincon, we ended up evaluating 6 of them.

Exhibit	**Evaluation Days**		
	June 2	June 9	June 12
Raindrop Plotter (Figure 4)	√	√	√
Lift (Figure 5)	√	√	√
Currents (Figure 6)		√	√
Viewfinder (Figure 8)		√	√
Sound Garden Path		√	√
Listening Tube (Figure 7)		√ (for 1 hour)	√
Signs of the Tide	None (Did not make it out)		
Mixing Path	None (Did not make it out)		
Marine Highway	None (Did not make it out)		

Figure 4. Raindrop Plotter



Figure 5. Lift



Figure 6. Currents



Figure 7. Listening Tube



Figure 8. Viewfinder



SOME GENERAL FINDINGS

The people who stopped

As part of our observations, we noted the types of groups people were in and what they were doing before they stopped at our exhibits. During our interviews, we also asked people if they had heard of the Exploratorium and if they had visited it before. Finally, we collected some very preliminary data on our rejection and acceptance rate for interviews.

Because our evaluation effort was focused on answering specific questions about individual exhibits, evaluators were instructed to forgo these more general questions and observations if an interview was running too long, if the more general observations became too difficult to do, or if the logistics of overseeing multiple exhibits became too overwhelming. Nonetheless, these data give us an initial feel for the people who stopped at our exhibits.

The Type of Group that Stopped

	6/2/2005	6/9/2005	6/12/2005	All days
Multi-generational	0	2	10	12
Individual - adult	16	24	9	49
Peer - adult	9	14	27	50
Individual - child	0	0	1	1
Individual - teen	0	1	1	2
No data	0	0	1	1
Total	25	41	49	115

We compared the types of groups who stopped at the exhibits with the groups who passed though the area in an earlier observational study.[1]

	6/2/2005	4/29/2005 (weekday, no midday game)	6/12/2005	5/7/2005 (weekend, midday game)
Multi-generational	0%	4%	20%	21%
Individual - adult	64%	57%	18%	24%
Peer - adult	36%	39%	55%	56%
Individual - child[+]	0%	-	2%	-
Individual - teen[+]	0%	-	2%	-

[+] Individual child and Individual teen are likely to be part of a multi-generational group.

We detected no significant difference between the types of groups who stopped at our exhibits and the types of groups who pass through Rincon Park. For the time period 10:30am-2pm for a weekday with no baseball game scheduled (June 2 and its counterpart, April 29), χ^2 (2, N = 158) = 0.894, p = 0.640. For 10:30am-5pm for a weekend day[2] with a midday baseball game (June 12 and May 7), χ^2 (2, N = 399) = 1.33, p = 0.515.

[1] There is no comparable day for 6/9/05.

[2] Individual child and individual teen were added to the count of multigenerational groups.

What they were doing before they stopped

	6/2/2005	6/9/2005	6/12/2005	All days
Walking	9	29	36	74
Rollerblading	2	1	1	4
Biking	0	1	1	2
Jogging	0	1	0	1
No data	14	9	11	34
Total	25	41	49	115

Most of the people who stopped were pedestrians. We were, however, surprised that any bicyclists, runners, and rollerbladers stopped at all, and we are encouraged that people would be willing to stop what they were doing or slow down to engage with our exhibits (and with our evaluators).

Did they know about the Exploratorium?

	6/2/2005	6/9/2005	6/12/2005	All days
YES (Heard of the Exploratorium)	19	20	32	71
NO (Never heard of the Exploratorium)	0	7	9	16
No data	6	14	8	28
Total	25	41	49	115

Most people we encountered had heard of the Exploratorium, although we cannot tell whether or not knowing the Exploratorium influenced their decision to stop. Nonetheless, because a majority of our audience at Rincon and, likely at Brannan Street, are familiar with our museum, we may be able to use the Exploratorium name as a way to communicate and establish the context and intentions of these sets of exhibits.

Have they been to the Exploratorium before?

	6/2/2005	6/9/2005	6/12/2005	All days
YES (Been to the Exploratorium)	14	21	25	60
NO (Never been to the Exploratorium)	3	15	19	37
No data	8	5	5	18
Total	25	41	49	115

Furthermore, a majority of the people who stopped had even visited the Exploratorium before. Yet, for a large minority of the people, these exhibits are their first experience with Exploratorium exhibits. This means that our presence along the Embarcadero would reach people that have never visited our museum on the other side of the city.

Rejection Rate

We recorded the number of people we approached but who declined to be interviewed. However, we only collected this type of data for 3 hours the first day of our 3 days of evaluation because administering the interviews for all the prototypes eventually became too pressing and demanding. In any case, our very preliminary data indicate a low rejection rate (10%), which corresponds with the general impressions of our data collectors.

LESSONS LEARNED ABOUT DOING OUTDOOR EVALUATION

We went into this evaluation with some trepidation, especially because the formative evaluation study attempted by Beverly Serrell for NY Hall of Science's Science in the City indicated that people were wary of being approached on the street by strangers. We were, therefore, relieved to find that people were mostly willing to talk with us and to engage with our prototypes.

In fact, we were very excited to find that some people move at a much more leisurely pace at Rincon Park. For example, one family had lunch in front of *Lift* watching the airfoils move up and down, and two gentlemen sat for about 20 minutes talking with each other and watching *Lift*. Some people took the time to carefully read the text and look very closely at the exhibits. One woman waited for about 10 minutes just for the wind to pick up because she wanted to see the airfoils on *Lift* fly. Alternatively, there were people rushing to the ballgame or to catch the next ferry out, who did not stay long at our exhibits. Nonetheless, we are encouraged by the opportunity to develop exhibits for a group of people who may be more willing and able to spend time at one exhibit.

Before these evaluations, we were concerned that people would not know about the Exploratorium and introducing our exhibits as Exploratorium exhibits would be meaningless to them. However, data indicate that a majority of people who passed through the area are familiar with the Exploratorium. Anecdotal evidence and comments from people we interviewed furthermore suggest that the Exploratorium name carries with it a lot of cache and good will. For example, a few people would stop us and say how pleased they are that the Exploratorium is planning on having exhibits outdoors in this area. On the first day of evaluation, even before any of our exhibits was completely set up, people would read our orienting sign and ask us when the exhibits would be available so they can come back later to play with them.

Alternatively, the Exploratorium's reputation, in some ways, also sets certain expectations for people. They are used to a certain caliber of exhibits and possibly a certain level of interactivity. As two visitors remarked:

> Visitor: I feel like the Exploratorium is capable of much better
>
> Visitor: I was wondering if there was something I should crank. Something I could do. Is it interactive?

Moreover, evaluating prototypes outdoors is more 'public' and exposed than evaluating prototypes inside the Exploratorium. There's no place to hide an exhibit that isn't working. In addition, the *process* of iteratively prototyping also becomes exposed for public study. We had one group of office workers who came down to our test site, not so much to use the prototypes, but to talk to us and specifically learn about our prototyping process.

We were initially concerned about creating a context for our exhibits through physical presence and orienting signs. Although we tried to have a critical mass of exhibits outside at all time, because some exhibits were not ready, we found that we had only 2 exhibits ready on the first day of evaluation. We, however, discovered that even with the 2, we were able to attract and engage people. Critical mass does not solely depend on the number of exhibits but their size. On the first day of evaluation, one of the 2 exhibits that made it out was *Lift*. *Lift* spans 24 feet in length and raises 5 feet above the railings, giving it some physical presence. In addition, it moved with the wind and was, therefore, eye catching. Team members were able to see *Lift* from across the Embarcadero as they were driving toward Rincon Park. Furthermore, evaluation data for *Sound Garden Path* indicated that people noticed *Lift* in other parts of the park. We conjecture that part of the reason we were able to do evaluation with only 2 exhibits was because *Lift* had such 'presence'.

Informally, we also noticed that people did stop to read the orienting signs. They seem to help people figure out what was going on with the prototypes we placed outside.

Some of the initial interest and excitement we generated were, however, likely due in part to the novelty of having Exploratorium exhibits outdoors for a few days. Passer-bys seemed surprised and pleased to come upon this 'free' event and were attracted to our exhibits because they were curious about what they did. The evaluation results for almost all of our exhibits showed that some visitors found our exhibits interesting primarily because it was something new they happened upon. It is unclear how repeat, some daily, visitation will affect our audience's response and engagement with a more permanent set of exhibits. This will be one of our key foci for later evaluations planned at Rincon Park.

ACKNOWLEDGEMENTS

The authors would like to thank Fay Dearborn, Mary Kidwell, and Heather Posner for conducting the data collection during these three days at Rincon Park and especially for their willingness to try new methods, work in a sometimes harsh physical environment, and approach strangers on the street. They also helped with set up and gave valuable feedback about the evaluation process throughout.

This material is based upon work supported by the National Science Foundation under Grant number 0104478. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

