

# **Adventure Playground – Front End Study**

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# Geometry Playground – Front-end Evaluation Adventure Playground, Berkeley CA

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## OVERVIEW

The Geometry Playground project has many goals, and one specific goal is to engage a target audience of children ages 5 - 12 and their family groups in playful learning activities, many of which involving whole-body interactions. In particular, we want to design exhibits and an exhibit environment that foster intergenerational play, involving adults and children. We had hoped that outdoor playgrounds would offer us clues about the interests and behaviors of children ages 5-12, especially in the realm of physical play. Unfortunately, we discovered that few existing play spaces attract children spanning this full age range, and even fewer engage adults in play alongside their children. We did find one such playground, fortuitously located in the Bay Area.

Adventure Playground (AP) in Berkeley, California attracts our targeted age group and seems to engage many adults in the activities of playing and building with their children.



The playground describes itself this way: “Adventure Playground is an outdoor facility at the Berkeley Marina, featuring staff and unique play experiences that encourage children to play and build creatively using simple tools.” The playground looks very different from a typical playground. Rather than containing factory-built play structures, sand pits and springy ground-covering material, Adventure Playground is full of homemade wood structures painted in various ways by child visitors. The entrance sports a large sign communicating the physical dangers that lie within, along with a consent form for parents to sign. At the tool exchange center, visitors can obtain paint and nails only by trading in rusty nails they have found in the playground. Throughout AP, children and adults alike build new play structures or play on ones left behind by previous visitors.

<http://www.ci.berkeley.ca.us/contentdisplay.aspx?id=8656>

As a result of its attraction for adults and children in our targeted age range, Adventure Playground seemed an ideal location to conduct a front-end study of visitor use and activities.

## PURPOSE

The purpose of the front-end study was to help us understand the design features of an environment that would engage adults and children ages 5-12 in whole-body play activities. Specifically, we wished to answer the following questions:

- Why do visitors come to a place like Adventure Playground?
- What activities do children enjoy at Adventure Playground?
- Does risk play a role in the activities at the playground?
- Do adults and children play together at Adventure Playground?
- Where and how are visitors spending their time while inside?

To address the goals of the front-end evaluation, we conducted two studies at AP, an observational study and an interview study.

## OBSERVATION STUDY

The purpose of the observational study was to describe visitors' behaviors in AP and determine whom visitors were playing with.

## METHOD

To explore how visitors were typically using the playground, we categorized visitor groups into one of three types:

- Children only
- Adults only
- Adults and children together

and looked for three kinds of group behavior:

- Playing
- Building
- Non-engagement

We observed visitors using a "sweep" method, walking slowly through the playground looking inside and around play structures. In each sweep, we followed a predetermined path around the park, observing visitors at specific locations throughout the playground. In regular intervals from noon to 4pm an observer followed the route through the playground, noting each group's configuration (adults-only, children-only, or a mix the two) and activity (building, playing or non-engagement) at each of 99 discreet locations. Playing was characterized as typical playground play, plus rolling in a barrel or sliding down the slide. Building was defined as nailing, sawing, painting, or looking for wood or supplies. Non-engagement included adults reading, adults on the phone, or adults talking with other adults. (Children always appeared to be engaged.) At any one particular location, we considered all visitors to be together, because determining true group membership was difficult. Gender was not recorded. Typically, each full sweep lasted under 10 minutes, depending on the density of visitors at the playground at any particular time.

## OBSERVATION DATA COLLECTION

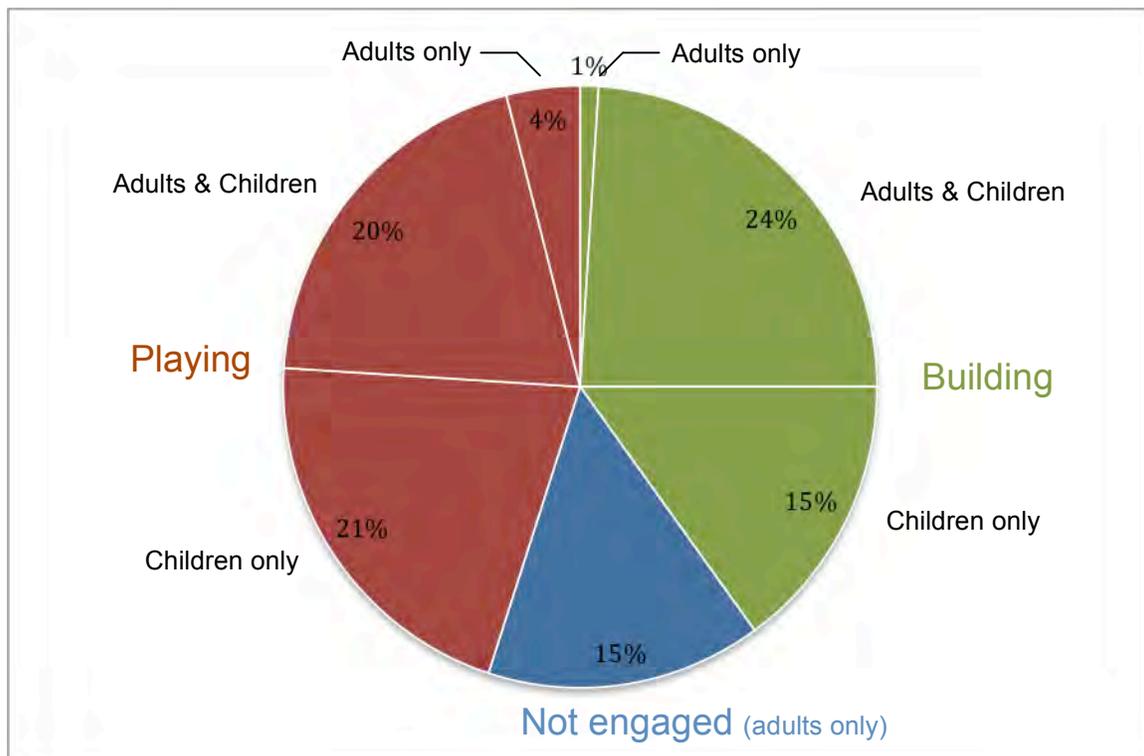
The observation data were collected on-site at Adventure Playground in Berkeley, CA, during the week of spring break for Berkeley Unified School District 2007. Adventure Playground is open on the weekends throughout the year, but that week also opens during weekdays. We collected data on two weekdays and two weekend days, shown in the table below.

### Sweeps and Observations

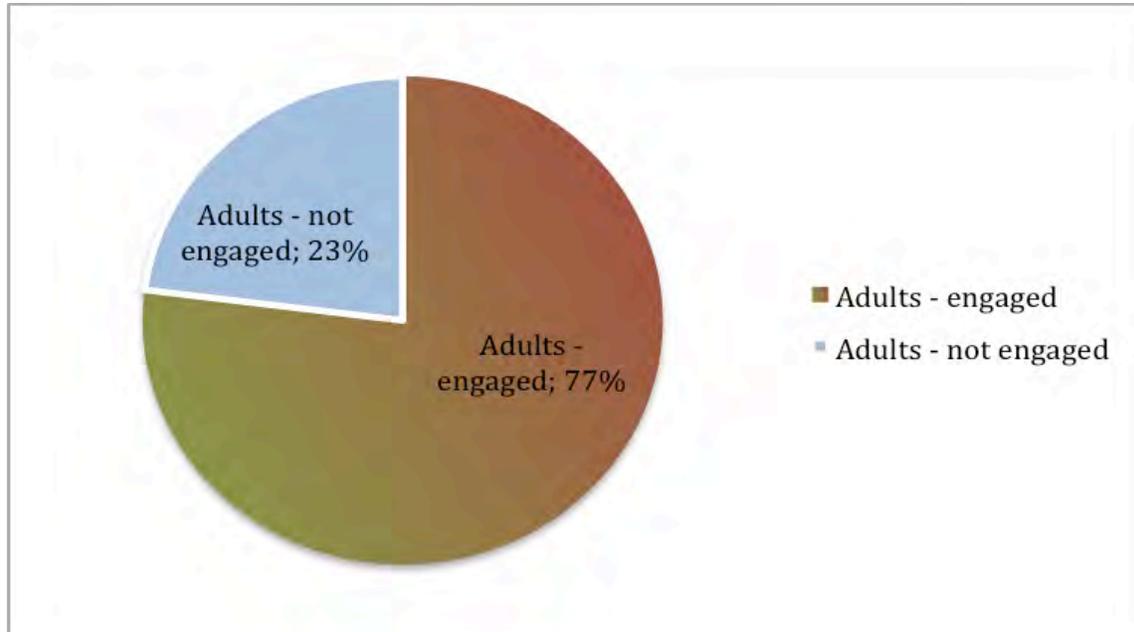
Date	Day	Sweeps	Observations
4/1/07	Sunday	16	377
4/3/07	Tuesday	24	408
4/4/07	Wednesday	24	327
4/15/07	Sunday	24	664
<b>Total</b>		<b>88</b>	<b>1,756</b>

## RESULTS of OBSERVATIONS

When we analyzed the data based on the behaviors we had observed, we found that visitors were almost evenly split between playing (45%) and building (40%). We also found that about 75% of the adults were engaged in some form of activity at the playground. Additionally, More children played with adults (44%) than by themselves (36%). These results—showing large amounts of construction activity and a high degree of adult engagement—reflect an unusual playground environment.



To underscore the finding that adults were highly involved at AP, we analyzed all behavior that involved adults—adults with other adults, a mix of adults and children, and adults who weren't engaged. The result is shown in the chart below.



### **INTERVIEW STUDY**

We conducted an interview study to determine why visitors come to a place like Adventure Playground and how they spend their time there.

### **METHOD**

For the interview study, we used a purposive sampling method and employed a semi-structured group interview format. (In a group interview format, we ask the socially least powerful person our questions first, starting with youngest child and ending with eldest male.) In our sample we included families:

- containing at least one child aged 5-12 and one adult
- engaging in a range of different kinds of activities
- using different areas of the playground

Once we recruited our family groups, we conducted an interview in the same space where group members were playing and/or building. Often the children continued to play as we talked. The interviewers did not identify themselves as Exploratorium staff, rather as those who were interested in learning about people's experiences at Adventure Playground.

Because we employed purposive (as opposed to random) sampling methods to recruit family groups, this report will not include percentages or use statistics to analyze any of the data from the interview study.

## INTERVIEW DATA COLLECTION

The observation data were collected on-site at Adventure Playground in Berkeley, CA, during the week of spring break for Berkeley Unified School District 2007. Adventure Playground is open on the weekends throughout the year, but that week also opens during weekdays. We collected data on two weekdays and two weekend days, shown in the table below.

### Interviews

Date	Day	Number of Groups
3/31/07	Saturday	30
4/1/07	Sunday	17
4/3/07	Tuesday	18
4/4/07	Wednesday	14
<b>Total</b>		<b>79</b>

## INTERVIEW RESULTS

The questions, along with select visitors' responses, are provided below. We directed some questions at the children, some at the adults, and some at both. Our goal was to understand why visitors' behavior at AP seemed so different from that found in more typical playgrounds.

### 1. Have you ever been here before?

Most of the visitors had been to Adventure Playground before. It is not a playground one could easily stumble across nor could it be seen from the road. If anyone in the family group had been to the playground, we counted the group as a return visit.

### 2. Why do you come to a place like the Adventure Playground?

The visitors offered a broad range of responses to this question, often giving many reasons in a single response. The responses we heard most often were:

It is unstructured; you can be adventurous; it is different from play at home  
*"You can be creative, express yourself, get dirty, be a child again; use your imagination."*  
*"It gives her an opportunity to do non-conventional things."*

The act of building; interesting materials; recycled materials  
*"My son likes to play pretend like he's building a house."*  
*"Children can see wood and build something. It's better than sitting at home on the computer, T.V., and video."*

It is fun  
*"Because it's exciting and fun here. It's fun because you have all these activity things."*

*"It's fun to come with a friend. It satisfies me no matter what I'm looking for."*

Other common reasons visitors offered for their visit included:

- read/heard about the playground; it is free; location of the playground
- the zip cord;
- the playground is made by children and is different from regular playgrounds;
- reminds adults of how playgrounds used to be (nostalgic)
- you can paint here

From our anecdotal observations, we expected to hear visitors comment on the risk and danger as well as the mixed adult and child social interactions—since both seem paramount to the experience at the playground. Some visitors mentioned these as reasons they come to a place like AP, but we didn't hear this reason offered very often. Some visitors did mention:

Risk and danger

*"He [my son] really likes it. It's dangerous and risky. You learn how to set limits and boundaries on your own. It's what play is supposed to be. Everything in our modern world is so mechanical and protected."*

*"It's so fun and refreshing not to be in a place that's all sterile with rounded corners. Usually rounded plastic corners, not here. It's not safe. Nothing is safe."*

Adult/child interactions

*"The main reason is really it's good parent-child interaction; it gives her the opportunity to work with the physical universe; creating with your child doesn't happen all the time."*

*"We work as a team."*

### **3. [For children] Which of these two activities do you like doing more here—Playing or Building? Can you say what it is that makes you like \_\_\_\_ more than \_\_\_\_?**

Of the children we spoke to, more children answered that they preferred building to playing, but there wasn't a great difference in response rate. For the children that preferred building, they most often commented on:

You can free-build; it is creative/artistic; you have ownership

*"There's a lot of old stuff. All these forts were made, not planned to be made. People keep nailing stuff on. It's more fun."*

*"Because you can make stuff you wanna make instead of using things people have already built."*

For the children that preferred playing they offered two reasons most often:

Playing is faster than building; playing is easier than building

*"It's fun to build but most of the time I play with stuff here, it's easier."  
"It's less trouble, you just play."*

It is fun to play here; it is different than other playgrounds

*"It's fun playing on what children have made."*

*"At every playground it's slides and swings. This is new to me."*

**4. [For children] OK, now how about these two – which one do you like more? Doing stuff that feels pretty safe / Doing stuff that feels a little risky or dangerous. Can you say why that is? What you like about it?**

Most of the children that we spoke to said that prefer engaging in activities at Adventure Playground that feels a little risky or dangerous. The reason offered most often was:

Risky, because it because it feels more exciting.

*"It might be a little more fun. You'll be more thrilled at the ending."*

*"Risky, cause I wanna try things out and see if I like it."*

The children who preferred engaging in safer activities offered the reason:

Safe, because they didn't want to get hurt.

*"Because if you make a mistake here, then you get hurt more badly than you do other places."*

*"Sometimes I do things that are dangerous, like riding down stairs on my bike, but here I like to things that are safe. [Why?] Because there are nails."*

**5. [For children] How about these? Doing stuff with other children / Doing stuff with adults? And why do you prefer to do stuff with \_\_\_\_\_?**

Overwhelmingly the children answered that they prefer doing stuff at Adventure Playground with other children. The following reasons were given most often about why they preferred playing with other children.

Children because adults don't "get it" right. (i.e. can't fit, have rules, have less energy.)

*"A lot of adults can't do what me and my friend do, like go under a building."*

*"Children are funny; adults, more serious. Children are more fun. Adults act like they're in charge. Children don't act like they're taking charge."*

Children are similar age as me; children have similar tastes as me, children are my friends.

*"Can work more with children. Can get to know them more. With children you can make friends and with adults you can't."*

*"You get to talk with them and play with them. We can talk about girl stuff."*

Children are fun

*“Because it’s more fun, sometimes you have more experiences with other children and it’s more fun.”*

*“Cause other children are actually fun and they like doing more stuff.”*

Of the children who preferred to do stuff with adults, these were the reasons offered as to why.

Adults can help me

*“Cause I guess adults know how to build more things, and they’re wiser.”*

*“Cause if I hurt myself, somebody can help me.”*

Adults are more fun

*“Because I’m a little older, that makes adults more fun.”*

*“Adults are more fun to play games with.”*

**6. [For adults] It seems like there is a lot of adult involvement here compared to regular playgrounds, what’s your sense about why adults seem more involved here?**

Adults believed that AP fostered more parental involvement because the potential risks encountered required their supervision. Also, adults felt they were more involved in order to provide assistance to children through advanced skills or increased strength.

*“They can get hurt here. Going down the thing (slide) with the boat, you can get hurt. You have to supervise with hammers. You have to be on top of them.”*

*“A little supervision. They (children) can get into a little trouble. But I think it attracts that (involved) kind of parent.”*

*“They don’t want children to get hurt by a hammer. Children this age can’t start nails by themselves, these activities lend themselves to it.”*

*“He just asked me to help him out because he needed my height.”*

Adults also reported adults and children interacted because the activities in the playground were interesting and something they could connect to. They talked about how the setting was fun and nostalgic for them, which contributed to their involvement at the playground.

*“Painting is a 2-person endeavor. General playgrounds have no variety. Here there are lots of large structures, big enough where you can walk through them (as adults with the children). So, adults can play too, that fosters interaction.”*

*“There’s more variation of activities, I can get involved in what they’re doing. At regular parks they climb the slide which is not a fun for me. Here I’m more engaged, it’s something I connect with.”*

## **7. Are there other places where you folks go where there is just as much involvement in children's play?**

We were curious to see if visitors felt that Adventure Playground stood out as unique as a place where children and adults were engaged in play together. Or, did they find many other venues that promote adult-child play?

We found that, for the most part, visitors could easily think of other places where adults and children play together. Future studies could compare the kinds of interactions at these venues to those at Adventure Playground.

### Venues with adult involvement in children's play (alphabetical order):

Amusement parks; water parks  
 Aquarium; zoo  
 Beach  
 Carnivals  
 Community garden  
 Dog walking  
 Hikes; nature centers; climbing rocks  
 Museums: art, children's, hands-on  
 Our house  
 Pottery painting studio  
 Preschool  
 Regular playground  
 Sports: skiing, soccer, swimming, bowling, ice skating, laser tag

## **8. What, if any, kinds of activities or games do you play at home with your children?**

We asked this question to assess whether the visitors we spoke with engage in adult-child play at home. We found that many did.

### Activities/games played (alphabetical order):

Art - paint, drawing, sculpting  
 Building - blocks, tree house, make forts, legos  
 Computer  
 Cooking  
 Dancing  
 Dress up/role play  
 Gardening  
 Homework  
 Inside games - cards, board games, video games, charades  
 Kites  
 Music  
 Playing with dogs; playing with siblings  
 Reading  
 Sports

## DISCUSSION



Our two studies suggest that adults and children do play together at Adventure Playground, emphasizing the unique nature of AP among children's playgrounds.

### **Why do visitors come to Adventure Playground?**

In general, we found that adults and children come to AP for the fun, free-form activity of building and painting their own play structures. And many children enjoy simply playing in and around those structures.

Children enjoy the feeling of risk associated with building and climbing on home-made structures. Some adults appreciate exposing their children to a riskier, less "sterile" play environment. Many enjoy being able to help their children build, and feel nostalgic for their own childhood experiences (e.g., making forts).

### **What activities do visitors engage in at Adventure Playground?**

We found that visitors' time is evenly split between the two activities of building and playing. This split was true for children working alone and for adults and children working together. About 75% of adults were seen to engage in one of these two activities during our sweeps, suggesting a high degree of adult involvement. Both children and adults reported enjoying the two activities.

Interestingly, there was one revealing discrepancy between what we observed and what visitors told us. Children overwhelmingly reported that they prefer to play and build with other children, rather than with adults. However, our observations found that about half the children play with adults in AP. This suggests that adults may be self-motivated to engage in play, rather than being asked by their children.

### **What characteristics of AP seem to promote adult-child interactions?**

In response to our interview questions, adults and children reported that the risky nature of the activities and the rough-edges environment at AP were key to adult engagement. Children said they enjoy the risky activities at the playground. Adults felt the need to supervise children's risky activities and chose to do so through direct participation with

them. Some adults mentioned appreciating that the playground offers them such a role in their child's play.

A second, related, factor for engaging adults is the activity of building home-made play structures. This activity seems to promote adult involvement by:

- reminding adults of their own pleasant childhood experiences building structures
- requiring adults' physical strength
- requiring adults' greater construction skills
- offering adults a clear role in children's play

## **Conclusion**

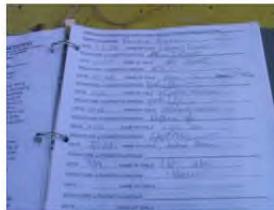
The Adventure Playground successfully induces adult-child play. In the Geometry Playground project, we look to its use of large-scale building activities as a model and hope to develop whole-body exhibit experiences that involve building with a small degree of risk and invites adult supervision and collaboration.

APPENDIX A: Images

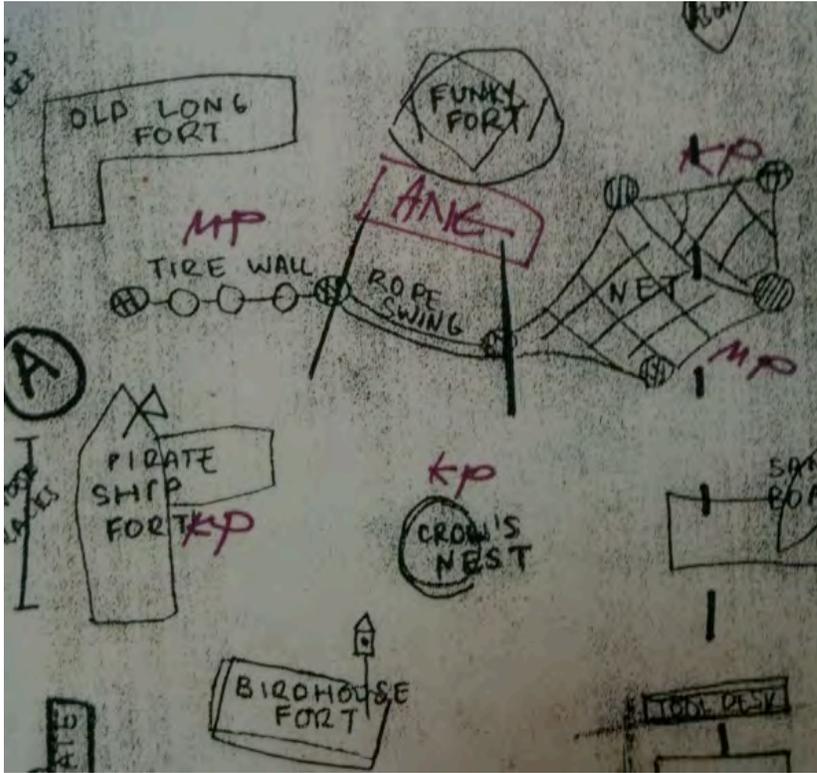
Photographs of the playground



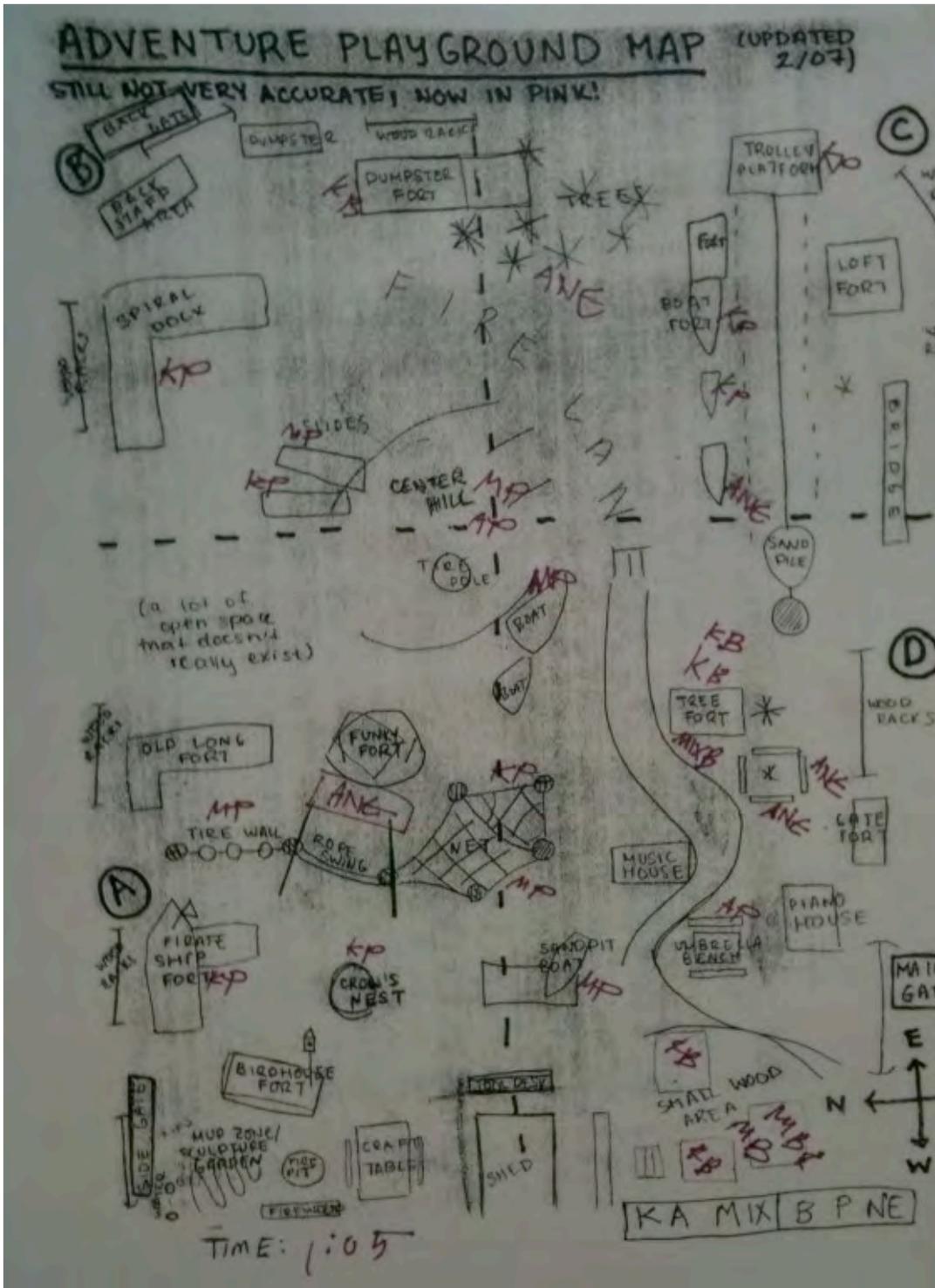
Photographs of the signage at the playground



APPENDIX B: Observation/Sweeps Instrument



(detail)



**APPENDIX B: Interview Instrument**

## Adventure Playground Front-end Interview

Date: \_\_\_\_\_ Day: \_\_\_\_\_ Time: \_\_\_\_\_ AP Area: \_\_\_\_\_

Visitors' Activity at start of interview: (describe how you sampled)

Ages: \_\_\_\_\_ ESL: N Y Yes, but fluent

Genders: \_\_\_\_\_

*Excuse me, my name is XXX and I'm working with the folks here at Adventure Playground to find out more about people's experiences here. Could I talk about that? It'll take about five minutes.*

1. Have you ever been here before? How often do you come?
2. [Child and then Adult] Why do you come to a place like the Adventure Playground?
3. [For children] Which of these two activities do you like doing more here?
  - Building
  - Playing

Can you say what it is that makes you like \_\_\_\_\_ more than \_\_\_\_\_?

4. [For children] OK, now how about these two – which one do you like more?
  - Doing stuff that feels pretty safe
  - Doing stuff that feels a little risky or dangerous

Can you say why that is? What you like about it?

5. [For children] How about these?
  - Doing stuff with other children
  - Doing stuff with adults

And why do you prefer to do stuff with \_\_\_\_\_?

6. [For adults] It seems like there is a lot of adult involvement here compared to

regular playgrounds, what's your sense about why adults seem more involved here?

7. Are there other places where you folks go where there is just as much involvement in children's play?
8. What, if any, kinds of activities or games do you play at home with your children?
9. [For Children] Do you mind if I ask how old you are?

## ACKNOWLEDGEMENTS

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