

OMCA GALLERY OF CALIFORNIA NATURAL SCIENCES

Fall Preview Events Evaluation Report—December 2012, Mary T. Faria, evaluator

Gallery of California Natural Sciences—Big Idea

- **California is a place of amazing natural diversity that is under threat and you can do something about it.**

Introduction

The target audiences for the evaluation of developing exhibits in the Gallery of California Natural Sciences were Members and the general public with a focus on families. The first date (Oct 12, 2012) for fall preview studies was conducted primarily with invited Members. The remaining fall preview studies (Oct 26, Nov 11, and Dec 2) documented in this report were conducted using random recruitment from visitors to the Oakland Museum of California (OMCA). Researchers collected qualitative data in response to prototypes and developing exhibits for the INTRO and Oakland Sections, as well as for the developing Now-Then and Coastal Issues Lounges, and for the prototype live gallery animations. An exit survey was also administered to capture narrative, qualitative responses to visitors' experience of the goals of the gallery overall.

The intent of this testing was to observe engagement, record visitor questions, and document visitor comments and responses that indicate the relative success of evolving prototype exhibits in achieving the Intended Impacts for Public Audiences stated in the project description: 1) convey the unique diversity of California through the places chosen as models; 2) convey the manifestations of threat from human impact in the different places, as well as encourage visitors to take individual or collective action by showing ways people are protecting and restoring California's diversity; 3) engage visitors in noticing, describing, depicting, seeking out and empathizing with nature in their locale; and, 4) aid visitors in developing new skills to search for information about habitats and analyze scientific information. (See Appendix A.). In addition, testing also sought to answer selected staff questions (See Appendix B.), generated with Cecilia Garibay in April 2012 that were relevant to the desired project impacts.

In addition to testing with designed instruments, general visitor feedback was gathered through a variety of media (comment boards, journals, etc.), and informal observations were recorded by staff to aid developers in resolving usability issues and visitor preference questions. This large body of informal data holds many important implications for remediation, especially with regard to text of all kinds—interpretive text (especially for Cordell Bank), way-finding, instructional signage, and labeling. These notes and all data files for evaluation focus areas addressed in this report are archived at [10.161.2.10/Science/Projects/NS-Renovation/PROTOTYPING/Preview-events-2012](https://www.omca.org/10.161.2.10/Science/Projects/NS-Renovation/PROTOTYPING/Preview-events-2012). A record of major learnings related to this preview programming has also been archived and includes learnings related to the combination of "hosting" visitors while also conducting formative / remedial testing that may inform future efforts of this kind. This record may also be found at the address mentioned above.

Fall 2012 formative and remedial evaluation focus areas

1. INTRO Section
2. Oakland Section
3. Now-Then Lounge, Oakland Section
4. Guide Cards for Borderline habitat case
5. Coastal Issues Lounge, Cordell Bank Section
6. Live animations
7. Overall gallery understanding and experience take-aways

1. INTRO Section

Intent

The intent of fall 2012 formative testing of the INTRO prototype was to learn what visitors understand the gallery to be “about” from using the map, photographs, and minimal text provided as tools, along with the slide show prototype of what is ultimately intended to be an adjacent component (Immersion Tunnel). The fall 2012 prototype combined these two components and visitors passed through as one cohesive installation into the Oakland Section beyond.

The objective of the INTRO component is to provide tools for understanding that the gallery is focused on 7 places that illustrate the unique diversity of California and some ways that diversity is threatened by human impact.

Method (See instruments in Appendix C.)

- Visitors were directed to enter the gallery by passing through the prototype INTRO area on Oct 12, 26, and Nov 11. Visitors’ activities were recorded using an observation protocol. Visitors’ responses to a question prompt (*What would you expect this gallery to be about based on this set-up?*) were self-recorded at the comment board situated near the exit from the INTRO area and before entering the Oakland Section.



Findings

Iterative testing for development of the prototype evaluated at fall 2012 preview events was conducted June-September 2012 to arrive at the components depicted above. The fall 2012 prototype included: 1) two lines of text stating California is one of the most diverse places on earth and much of the diversity is under threat, introducing the map, image, and text configuration; 2) the map, showing minimal topographical or other detailed information, depicted 7 stars to indicate the places represented in the gallery; 3) one brief statement was placed to the immediate left of the map/image configuration (*This gallery tells the story of California’s incredible diversity and ways that diversity is under threat through these 7 places.*); 4) lines connecting places (i.e., stars) and 5 images of each place, including topographical characteristics, species details, and depiction of human presence; 5) a prompt (*What would you expect the gallery to be about based on this set-up?*) and comment board to the left of the map/ image/ text configuration; and, 6) a slide show prototype of the Immersion Tunnel component was included in the same space.

What’s Working

- Most visitors stop to read the map, images, and text quickly.
- Most visitors stop to view the slide show.
- Many visitors write and post a comment in response to the question prompt. (*What would you expect the gallery to be about. . .?*)
- Most visitors take away that the new gallery will show “places” in California.
- Many visitors are engaged by the current prototype combination of slide show and map, images, and text display, looking quickly or extensively, pointing, or expressing surprise or pleasure.
- Some visitors understand the specific 7 places the gallery is focused on.
- Some visitors understand a message of “threat” from the prototype provided.
- Some visitors understand threat as related to human presence or impact.

- Some visitors recognize and comment on inclusion of iconic, familiar images (e.g., Shasta, Yosemite).
- Some visitors respond with comments indicating inspiration (“Most diverse on earth?”—visitor comment).
- Some visitors respond with comments indicating connection to nature (e.g., memories of having been in some places depicted).

What’s Not Working

- Many visitors do not understand the nature of the threat to diversity from human impact from the prototype provided.
- Some visitors respond with written comments on the board indicating “climate change” as the theme of the gallery.
- Based on configuration of prototype for ALL fall preview events, it is not possible to determine whether the map, images, and text **alone** convey what the gallery is about or whether the combination of these **plus** the slide show prototype of the Immersion Tunnel element together convey the messages reflected in visitor comments when answering the prompt (*What would you expect the gallery to be about based on this set-up?*), i.e., The gallery presents 7 places that show the unique diversity of California and ways that diversity is under threat from human impact).
- Note: Docents stationed at the entrance to the gallery were instructed to direct visitors into and through the INTRO prototype. Some docents consistently engaged visitors and other docents in ways that distracted them from assisting with traffic flow through the prototype. Some docents also engaged visitors in discussion of “hotspots,” the meaning of the term and how it is intended to be the topic of the gallery, which interfered with testing visitor take-away messages of the prototype set-up.
- ~~Few visitors respond with comments indicating intention to take action. (IS this an objective of the entry experience?—TBD)~~

Implications / Recommendations

- Consider isolating the two components (immersion tunnel prototype / slide show and introduction prototype—map/images/text] to understand take-aways from each independently or in sequence.
- Consider making the human presence and relationship of threat to diversity due to “impact” more explicit in image and/or text.
- Consider including an interactive component that would allow for direct exploration of the diversity of each of the 7 places to further impress the specific places to be found represented in the gallery.
- Consider including more explicit images of human presence that convey – relationship_to place and/or impact on place (depending on specific goal of this entry experience —TBD).
- Consider including the theme of taking action to protect and restore more explicit in the INTRO elements (depending on specific goal of this entry experience —TBD).

2. Oakland Section

Intent

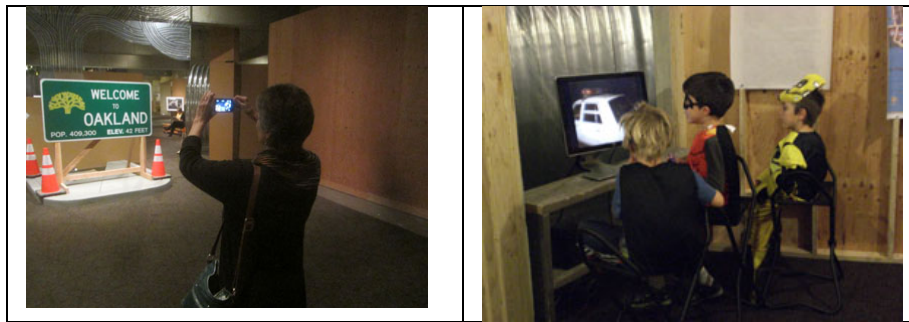
The intent of fall 2012 tracking studies in the Oakland Section was to learn where visitors were stopping to engage with the rough exhibit content and to capture visitor comments and questions overheard in response to the various developing exhibit elements.

The intent of this section is to convey that this area of the Gallery of California Natural Sciences represents Oakland—a dense urban environment with remnants of diverse habitats and one of the 7 places in the gallery chosen to show the unique diversity of California.

Method (See instruments in Appendix D.)

- Groups of 2-4 visitors’ pathways were tracked for up to 15 minutes on Oct 12 and for up to 30 minutes on Oct 26 and Nov 11. Pathways within the boundaries of the Oakland Section, plus the Taxidermy and Redwoods preparation areas, were recorded on floor plans current for Oct 12, for Oct 26, and for Nov 11. Visitor comments overheard from approximately 5’ away were noted.

- Start and end time only was noted. Timing for specific locations was not noted for these studies. .
- There was no tracking study of visitors' pathways through the Oakland Section on Dec 2, 2012.



Findings

What's Working (Oct 12, 26 and Nov 11 studies)

- Of 26 visitor groups studied, most are engaged and generally spending more than 15 minutes in the prototype Oakland Section overall, some spending over 37 minutes in this section overall.
- Of 26 visitor groups studied, all made between 2 and 16 stops, with majority of groups making 10 or more stops.
- Of 26 visitor groups studied (Oct 12 and 26), more visitors are engaged on the left side from Oaks to Hill House and beyond.
- Most visitors' comments indicate surprise, making connections (e.g., "Oak – LAND!") and appreciation for the crafting of the exhibit itself (e.g., Taxidermy, Redwoods).
- Some / Few visitors notice, pick up, and use the guide cards at test case location (Borderline case in Coastal Scrub area). (See further notes in **4. Guide Card for Habitat Cases** section.)

What's Not working (Oct 12, 26, and Nov 11 studies)

- Of all visitor groups studied (Oct 12 and 26), fewer visitors are engaged on the right side, including Urban Nature Lab and Making Studio.
- It is not possible on current floor plan to record whether visitors are significantly engaged in text panels throughout Oakland.

Implications / Recommendations

- Most visitor comments captured during the tracking studies on 3 dates were at Oak Tree Mapping, Hill House, Sounds Station, FOSC videos and leaf rubbing activity, YMCA fort / tent, and Taxidermy locations, indicating possible focus for further study of how these elements promote interaction between visitors—TBD

Note: See scans of visitors' track/pathway in archive for further discussion of implications.

3. Oakland Now-Then Lounge

Intent

The intent of this brief tracking study in the Oakland Now-Then Lounge was to learn where visitors were stopping to engage with the interactives or with each other and to capture visitor comments and questions overheard.

The intent of this Lounge is to provide a resting place within the Oakland Section for investigation and conversation. Visitors could look into past and present habitats using a digital interactive with entry points of places familiar to visitors. Two iPads were provided featuring EBRP, Bay Nature, and Outdoor Afro videos on one, and Communities for a Better Environment and Lake Merritt Institute videos on the other. Ample seating was provided.

Method (See instruments in Appendix E.)

- Eight groups of 2-4 visitors' pathways were tracked for up to 20 minutes on Dec 2 only. Pathways

within the boundaries of the Now-Then Lounge were recorded on a floor plan and visitor comments overheard from approximately 5' away were noted. Start and end time only was noted. Timing for specific locations was not noted for these studies.



Findings

What's Working

- Of 9 visitor groups studied, most are somewhat engaged and spending 3–10 minutes in the prototype Now-Then Lounge overall.
- Of 9 visitor groups studied, the majority made at least 1 stop at the Now-Then interactive.
- Of 9 visitor groups studied, 2 made 1 stop at the EBRP/Bay Nature /Outdoor Afro iPad station.
- Some/ Few visitor comments indicate discovery and/or pleasure at recognizing locations depicted by Now-Then interactive (e.g., *There's my car!*—visitor comment, Dec 2).
- One visitor interacted extensively with the Now-Then digital content, touching map in numerous places and exploring.

Note: See staff notes and developer Olivia Jackson's notes for possible implications relevant to the Now-Then interactives and lounge area overall.

What's Not working (Oct 12, 26, and Nov 11 studies)

- Some /Few visitors comment that the Now-Then interactive is designed for use by only one person at a time.
- Some /Few visitors comment indicating disappointment (e.g., *I thought it would show what Oakland looked like 300 years ago!*—visitor comment, Dec 2).
- Few visitors interact extensively with the content while in the lounge.
- Few visitors interact extensively with each other while in the lounge.

Note: See staff notes for possible further implications relevant to this lounge.

Implications / Recommendations

- Consider posting prompts that motivate visitors to engage with the interactives and each other.

Note: See scans of visitors' track/pathway in archive for further discussion of implications.

4. Guide Card for habitat case(s)

Intent

The intent of fall 2012 Guide Card observations, using Borderline habitat case Guide Card as model, was to learn whether visitors: pick up and look at the cards; use the card/s for looking at the case, either quickly or slowly and closely; use the cards as a tool for engaging in exploration of the case alone or together; express confusion or frustration in using the card/s.

The intent of the prototype card/s is to: provide species information as a reference for the primary experience of looking closely at the habitat case alone or together; provide contextual information about

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the habitat represented; and, provide prompts for intergenerational interaction while looking at the habitat case.

Method (See instruments in Appendix F.)

- Observation protocols were used Oct 12, Oct 26, Nov 11, and Dec 2 to record how visitors used the Guide Card prototypes, noting whether visitors noticed and picked up the cards from the holder adjacent to the case, whether they had any difficulty using them, whether they used the card to look deeply alone or together, whether they engaged in conversation about the case while using the card.



Findings

The fall 2012 prototypes included the spiral bound Guide Card (printed verso and recto) on Oct 12, the accordion fold Guide Card on Oct 26, and the single-sided, spiral bound Guide Card on Nov 11 and Dec 2, 2012.

What's Working

- Most visitors who notice the case notice the card/s.
- Many visitors who notice the card/s pick up the card/s.
- Some visitors look at the guide card content as a point of interest in itself.
- A Few visitor groups studied use the card extensively for looking at the case, looking closely and engaging in conversations between parent / child using guide as prompt.
- Few visitors have any difficulty using either prototype card, with the exception of closing spiral bound with cover up.

What's Not working

- Note: Docents stationed near or at the Borderline case (i.e., at Fleetness or Patchiness cases or at Investigation digital station) consistently engaged visitors in ways that pulled them away from engagement with the Borderline case and, in most cases, with use of the cards.
- Few visitor groups studied used either the spiral-bound or the accordion fold guide card for looking extensively at the case. [In addition to this observation finding, findings from Oakland Tracking studies related to Guide Card indicate that of 26 visitor groups studied, 4 groups picked up the card/s and 3 groups used the cards extensively to look at and discuss what they were seeing in the case.]
- The case is not lit as well as the two cases behind it along the wall, which drew more visitors to them, making Borderline the less investigated case.
- The cover of the guide card does not have the ID (e.g., Field Guide 1) on the back as well as front, preventing visitors from seeing the 'match' of card to case.

Implications / Recommendations

- Consider leaving the delivery of the card in a holder to remain in immediate proximity, allowing passage for 360-degree movement around the case.
- Consider lighting the case more brightly.
- Consider adding signage that explicitly states the purpose of guide (e.g., "Use this for looking closely at this case and learning about this habitat," etc.—TBD).
- Consider placing the ID on both front and back of the guide card to match ID on the case.

Note: See compiled recommendations for event planning that include findings relevant to hosting visitors while conducting testing to inform future planning of similar events.

5. Coastal Issues Lounge

Intent

The intent of fall 2012 studies in the Coastal Issues Lounge in the Cordell Bank Section was to learn where visitors were engaging with the developing exhibit elements, to capture visitor comments and questions overheard in response to these various elements, and to capture visitor comments recorded at the comment rail in response to prompts (*Is it possible to be plastic free? My plastic-free action at HOME. My plastic-free action in the WORLD. My plastic-free WISH.*)

The intent of the Lounge is to: engage visitors in discovery of specific harmful consequences of plastics in the ocean; engage visitors in thinking deeply about the environmental threat of plastics in the ocean; elicit visitor comments about actions or intentions to take action to reduce harm caused by plastics in the ocean; and, encourage visitors to consider their relationship to plastic as consumers.

Method (See instruments in Appendix G.)

- Visitors' interactions with the elements of the lounge were recorded using observation protocol on Oct 12 and tracking studies on Oct 26 and Nov 11. Visitor comments while engaged in the lounge were recorded by evaluator. Visitors' responses to the prompts at the comment rail were self-recorded.



Findings

Though visitors' were not timed during their engagement in the Coastal Issues Lounge, tracking studies on Oct 26 and Nov 11 show 28 visitor groups who made stops in the Lounge made between 1 and 14 stops, with the majority of visitor groups making 6 or more stops (including the ROV located in close proximity to other Lounge components). Evidence from comments recorded indicate a high degree of impact on visitors' awareness of the issues related to plastics in the ocean, as well as increased emotional connection or empathy for the animals that live there. The comments recorded at the comment rail in this area are the largest body of evidence of visitor intent to take action that may benefit the environment of any components tested at the fall 2012 events.

What's Working

- Most visitors stop and talk together at the "Albatrocity" case.
- Most visitors stop at the Jar vitrine.
- Many visitors stop to post a comment at the comment rail, some talking together.
- Many visitors stop to read the Lang's Plastic Stories Booklet.
- Many visitors stop to engage in conversations about their own plastic use and recycling habits, especially near the Jar vitrine and talk-back wall [e.g. *Well done – you're taking ecology message and making it personal – so it resonates. The straws [jar] blew me away – it became very personal – I have a straw with my ice coffee every day.* (becomes teary as he states this.) *Thank you.*—visitor comment, Oct 12].
- Some visitors stop to notice the Lang art installation.

- Some visitors make connection between the Lang art installation and the “Albatrocity” exhibit case (i.e., plastics in the ocean).
- Some visitors write comments that indicate clear intent to take action (e.g., Plastic Free Pledge: *I pick up litter everywhere I go. I even go back for it if I cannot get it right away.* – Katherine age 3.75; *I am giving up straws!; I will not buy water bottles...unless I'm dying of thirst and absolutely have to*—visitor comments, Nov 11).

What's Not Working

- Most visitors do not read the Wall Text Panel.
- Many visitors do not understand that the visible plastic was collected from one beach (i.e., one location only) by the Langs.
- Many visitors have difficulty seeing the drawer contents (e.g., Drawers seem awkward as people bend down to try and investigate contents at an unfriendly height. Blocks others from getting around to talkback wall and wall text panel. Can't spend a lot of time with the drawers due to awkward placement. Label reads “hint— open the drawer” above non-working drawers. Need better lighting—Melissa Standen, notes Oct 12).
- Some visitors do not understand what the “Albatrocity” case is depicting (e.g., real environmental problem or art installation?).
- Some visitors are having considerable difficulty reading the labels (i.e., font too small; lighting not adequate; height not conducive to older visitors, too far away).
- Few visitors stop to read the Lang artists' statement.

Implications / Recommendation

- Consider better lighting and signage, plus small stool for seating while viewing drawers.
- Consider better placement, larger font, more directed lighting for labels.
- More explicit explanation of the “Albatrocity” case, including a literal explanation that this plastic was found inside the bird's stomach.
- Consider a guide card for the “Albatrocity” case, including prompts for parent/child discussion [e.g., Where is this bird from? (Midway Atoll); Why would a bird eat plastic? How does eating plastic harm the bird? Explain why birds eat plastic (e.g., attracted to color, floats on water, resembles their prey and does not disintegrate!)]
- Consider remediations to the wall panel (and other Cordell text – See misc. staff notes re: Cordell for Oct 12, 26, and Nov 11).

6. Live animations

Intent

The intent of the fall 2012 studies related to the live animations in the gallery was: 1) to observe how visitors participate in a variety of activities presented by partners and/or staff, identifying elements that may be interesting, confusing, or frustrating for visitors; 2) ask how visitors felt on leaving the live animation experience and what made them feel that way to gain understanding of what may particularly resonate or not with visitors; and, 3) ask what might have been surprising to visitors. In some instances, the intent of the live animation studies also included identifying elements that may be particularly effective in encouraging a sense of connection to nature (whether in the gallery or out-of-doors) and helping visitors recognize specific characteristics of habitats or species.

The live animations are intended to deepen personal connection to place through “community voices” and to deepen connection to selected major themes in the gallery overall (e.g., increased emotional connection to nature; identifying specific characteristics of animals and plants; indicating intent to take personal or collective action; and/or learning skills related to research about wildlife).

Live animations from fall preview events included in this evaluation are: taxidermy demonstration by Alicia Goode; interaction with artist Helena Keeffe about the YMCA co-creation in the gallery; drawing activity for envisioning future animals and characters in the Making Studio with artist Trena Noval; FOSC leaf rubbing activity; bird identification activity with Golden Gate Audubon Society; scavenger hunt in the gardens for Urban Nature Lab; Community Science presentations on Sunflower and iNaturalist projects;

Cordell presentation and engagement with Cordell National Marine Sanctuary, representative Jenny Stock.

Method

- Visitors were recruited upon leaving the immediate area of a specific animation to self-complete a brief survey for selected animations (i.e., “Cultural Commons” survey for any live animation in core collection galleries). (See instrument in Appendix H.)
- Visitors were recruited upon leaving the immediate area of a specific animation to respond to interview questions or longer survey to gather narrative data about how they felt, how the activity worked for them, what they may have “discovered” (i.e., connections they may have made), the degree of interest they have in the subject matter and, for Community Science animations, whether visitors could imagine becoming involved in efforts like those presented. (See instruments in Appendix I.)



Findings

Taxidermy demonstration

A brief Cultural Commons survey was gathered for this animation (Appendix H). Alicia Goode, staff taxidermist, was present at all preview events doing a live taxidermy demonstration on the perimeter of the Oakland Section, engaging visitors in conversation and answering questions.

Both nights, the response I got from visitors was overwhelmingly positive. Only one person expressed that it was too "intense" for them . . . [But] . . . once we began talking about the educational value and scientific importance . . . and I explained the many ways that we get our carcasses (mostly salvaged these days from roads and wildlife hospitals and that specimens ARE still collected, harvested, or hunted from time to time), she immediately calmed down . . . The kids loved it and had lots of great questions . . . There were many parents that looked a little wary of how their kids might respond. I think a lot of them were surprised and relieved when they saw how matter of fact and unafraid the kids were.

—staff notes from Alicia Goode, OMCA Taxidermist, Oct 26, 2012

What's Working

- Most visitors report one-word descriptions of the experience that are positive (e.g. *calm; encouraged; intrigued; impressed; authentic; excited; connected* —visitor comments from Cultural Commons survey, conducted Oct 26 only for this animation)

What's Not Working

- Some / Few visitors have considerable difficulty encountering this treatment of animal remains without warning.

Note: This was also indicated in the 2 years of formative testing with habitat cases. Some visitors expressed difficulty in knowing the animals depicted were once alive and that they would have appreciated prior warning about the encounter.

Implications / Recommendation

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- Consider regular Taxidermy demonstrations live in this area of the gallery as a regular Cultural Commons element (See Cultural Commons 2nd Saturday programming planning documents), as it successfully promotes exchange of ideas and interaction with presenter, and to a lesser extent, among visitors (i.e., criteria for CC programming).
- Consider signage at two approach sides to the taxidermy demonstration alerting visitors to the content they are about to encounter.

YMCA co-creation

Artist Helena Keeffe was present Oct 26 to engage in conversation with visitors about the installation and the co-creation project overall. Visitors included responses to this installation that evening in the Cultural Commons survey, and on other dates included responses related to this installation as part of their comments about adjacent animations or exhibit elements.

What's Working

- Most visitors report one-word descriptions of response to co-creation that are positive (e.g., *inspired; soul-filled; warm*—visitor comments, Oct 26).

What's Not Working

- Some visitors report the YMCA fort / tent needs more explanation (e.g. . . . *not sure I understood the hut; tent needs more explanation* —visitor comments, Oct 26 and Nov 11).

Implications / Recommendations

- Consider having several live animation events with the artist present for visitors to engage in conversation and questions about the YMCA co-creation project as a model for: families having urban/nature experiences; deepening personal connection to nature in the immediate locale; making natural science come alive in personal ways (e.g., making art in response to experience of nature).
- Consider posting text that explicitly welcomes visitors inside to promote the intended experience (i.e., to connect with a sense of wonder in discovering personal connection to nature).
- Consider posting text that explicitly tells the brief account of how the fort / tent was made.

FOSC leaf rubbing

Eight Animations interviews were conducted for this leaf rubbing activity Nov 11 (Appendix I), which took place immediately in front of and below a video screen offering touch-screen options for viewing clips depicting FOSC project/s. Various leaf specimens were provided, along with seating and coloring supplies. This activity was mediated as-needed by a FOSC representative.



What's Working

- Most visitors report one-word descriptions of response that are positive (e.g., *pretty happy; good / great; interesting; clever; funny*— visitor comments, Nov 11.)
- Some / Few visitors report that what makes them feel this way is related to the intention of the activity (. . . *seeing the live plants; I like seeing & learning about what's in my backyard; seeing leaf structure*— visitor comments, Nov 11.)
- Some / Few visitors report that what they “discovered” is related to the intention of the proximity of video and activity (e.g., *picking up information from video—this used to be a dump and it's*

been revitalized; ecology cleanups so close to where I live—visitor comments, Nov 11.)

What's Not Working

- Some visitors report that the video screen being directly in front of the activity distracts attention from the activity itself.
- Some visitors report that selected leaf samples (e.g., Redwood) are too fragile for vigorous rubbing required for the activity.
- Some adult visitors who went to select videos after the leaf rubbing with children did not understand how to do this without mediation.

Implications / Recommendations

- Consider redesigning the positioning of screen relative to activity in order to optimize attention focus on either / both (e.g., screen to side of activity where parent/adult can view while child draws).
- Consider posting text that explicitly makes connections between the rubbing activity and the video (e.g., recognition of native plant characteristics in relation to efforts of local people to restore native plants and support the restoration of the creek).
- Consider posting clear, minimal instructions re: options for viewing the video.

Character drawing

This activity took place in the same bay as the YMCA co-creation fort / tent installation. Artist Trena Noval mediated this activity to facilitate visitors' drawings of animals in an imagined future Oakland, intended to populate a library for the stop-motion animation activity in this area. Thirteen Cultural Commons surveys (Appendix H) were gathered for this activity in the Making Studio on Nov 11 and eleven Animations interviews (Appendix I) were conducted on Dec 2.



What's Working

- Most visitors report one-word descriptions of the experience that are positive (e.g., *happy, fully-engaged, informed, soul-filled, intrigued, fun* —visitor comments, Nov 11).
- Most visitors are engaged with the activity and enthusiastically suggest additional supplies [e.g., *big chubby crayons* (for young children); *3D building supplies, blocks; more colored pencils*—visitor comments, Dec 2].
- Most visitors report what they “discovered” while doing this activity to be related to the relationship between parent and child and also the degree to which focus was sustained by the child, (e.g., *so many kids doing art with their parents; My daughter was so focused for such long time. She was so into it; All the kids at the table seemed to be concentrating so much; I didn't realize my son would have such staying power*—visitor comments, Dec 2)
- Many visitors report one-word descriptions of their experience of the activity that reflect feelings about the context or setting (i.e., the fort/ tent installation), including that the experience was

“soul-filled” and that what made them feel that way was . . . *kids and adults sitting engaged in drawing activity and a homemade fort . . . ‘home sweet fort’* (sic). —visitor comment, Nov 11.

- Some / Few visitors commented on the theme of the activity, as related to the imagined future video in this same bay (e.g., *fun to imagine the future, but scary at the same time*—visitor comment, Dec 2)
- Some / Few visitors commented on the nature of this activity in the same space as the YMCA fort/tent being a combination of art and science (e.g., *art and science together for projects! Such a clever set-up here!*—visitor comment, Dec 2).

What’s Not Working

- There are no indications of what may not be working in the Cultural Commons survey data, or in the interviews in answer to whether there was anything “confusing or frustrating.” One visitor commented that the traveling musician (clarinet player, Dec 2) was distracting.

Note: See staff notes for possible observation findings relevant to this animation.

Implications / Recommendations

- Most visitors are connecting this activity with the immediate surroundings or setting (i.e., the fort / tent; video about the future).
- Visitor comments indicate experience of the activity as directly connected to adjacent exhibit elements, one related and one not related directly (i.e., YMCA co-creation). This may have implications for further study re: how visitors connect the live animation with exhibit elements and what promotes the intended connections.

Golden Gate Audubon Bird ID

Six Cultural Commons surveys (Appendix H) were completed for this Bird ID activity Nov 11, which took place in the same bay as the Urban Nature Lab.

What’s Working

- All visitors report one-word descriptions of the experience that are positive (e.g., *excited, intrigued*—visitor comments, Nov 11).
- Many visitors report responses that indicate a connection of this activity with exhibit elements immediately adjacent, such as the road kill exhibit (e.g., *I need to drive slower—road kill pictures; curious—challenge in identifying road kill; I especially enjoyed ‘flattened fauna’*—visitor comments, Nov 11).

What’s Not Working

- Few visitors stopped to engage in this activity, which took place in the later part of the afternoon (approximately 3-3:30pm).

Implications / Recommendations

- Visitor comments indicate experience of the activity as directly connected to an adjacent exhibit element, which in this case is not related directly. This may have implications for further study of how visitors connect the live animation with exhibit elements and what promotes the intended connections.

Scavenger hunts

Fifteen Animations interviews (Appendix I) were conducted for the scavenger hunt activities designed by staff developer, Sunday, Nov 11.

What’s Working

- Most visitors report one-word descriptions of the experience that are positive (e.g., *relaxed; fun; blessed; adventurous*; and, in response to what makes them feel this way, *looking . . . everywhere, not just one location; . . . blessed to know the museum has this beautiful garden; kept him [child] engaged*—visitor comments Nov 11).
- Some visitors report what they “discovered” (e.g., *learned more about nature; a beautiful view of the lake; found out you had a garden; sculptures are beautiful; rosemary hanging over the walls;*

colored camellias—visitor comments Nov 11).

What's Not Working

- Some visitors report response to whether there is anything confusing (e.g., *should be more activities for 3 yr olds; draw more answers and ask more higher order questions, e.g., Why is [it] this color?*—visitor comment Nov 11).
- Some visitors report response to what would make this more fun (e.g., *knowing the names of leaves, flowers, and trees; more clues for parents to know where to find things*—visitors comments Nov 11).

Implications / Recommendations

- Consider adding space for drawing specimens found.
- Consider adding an answer key that includes names of trees, etc.
- Consider adding a guide for parents and/or prompts for discussion and interaction.

East Bay Regional Park Lounge

The East Bay Regional Park Lounge (immediately adjacent to the Oakland Now-Then Lounge) was set up and mediated by park staff Nov 11 to engage visitors in learning more about hikes and programs in local parks, as well as activities aimed at matching animals of the parks with their scat and prints. In addition, a live gopher snake was available for a get-acquainted petting opportunity for visitors. Thirty-two Cultural Commons surveys (Appendix H) were gathered and 17 Animation interviews (Appendix I) were conducted for this animation.



What's Working

- Most visitors report one-word descriptions of the experience that are positive (e.g., *wonder; inspired; curious; outdoorsy; awesome; super psyched; excited*; and, in response to what makes them feel this way, *the snake; getting to touch the snake; the scat; sounds, tactile experiences, pictures, people to explain and interact with*—visitor comments, Dec 2.)
- Most visitors rank a high level of interest in these activities. Of 17 interviews using a scale of 1 to 6, where 1 is *not interested* and 6 is *very interested*, 1 response = 10; 6 responses = “6,” 6 responses = “5,” 1 response = “4,” 1 response = “3,” 1 response = “3/4,” and 1 response = 2.
- Some visitors report, in answer to what was ‘surprising’: *How hands-on it potentially may be—esp. compared to the CA Academy of Sciences; The homemade feel; My three year old loved the interactivity; A live snake—the exhibit should have live animals, plants, etc. brought in.*—visitor comments Dec 2.
- Some visitors report, in answer to what they “discovered”: *some plants can change the whole environment; East Bay Regional Parks has short walks to go on, picked up brochure; deer poop is smaller than gopher poop; snakes aren't scary*—visitor comments Dec 2.

What's Not Working

- Some / Few visitors had difficulty with the activity (e.g., *difficulty making tracks; lighting too low; [scat] game was hard to guess; [seating] too low*—visitor comments, Dec 2).
- Few visitors ranked the activity with low level of interest due to difficulty reading or not clear about purpose of section (e.g., *I don't look for small text, have to dig for information, I don't want to read, I want to look at things; unclear what area is about, felt like a space to pass through*—visitor

comments, Dec 2.)

Implications / Recommendations

- Consider posting explicit signage indicating the theme and purpose of the section (e.g., *I respond to 'environments' created, or signage indicating a theme, something that encloses it more*—visitor comment, Dec 2).
- Consider asking partner to include ways for pre-literate children to participate more fully (e.g., *Matching games—any kind of game. Especially because they don't read, kids 2 5-year olds*—visitor comments, Dec 2).

Community Science

Sunflower and iNaturalist project presentations were conducted Sunday, Dec 2. These presentations were intended to familiarize visitors with these grass-roots efforts and, ultimately, to explore ways of engaging visitors in Community (i.e., Citizen) Science Projects by using the gallery as a launch for involvement. Nine Animation surveys (Appendix I) were gathered for the Sunflower project and 13 Animation surveys were gathered for the iNaturalist project.

Community Science: Sunflower project

What's Working

- Most visitors rank a high level of interest in this subject. Of 8 surveys using a scale of 1 to 6, where 1 is *not interested* and 6 is *very interested*, 1 response related to subject = “6,” 1 response related to subject = “5,” 1 response related to subject = “4.5,” and 1 response related to subject = “4” (Note: remaining responses did not relate to the subject).
- Many visitors rank their level of prior knowledge of this subject as “a little bit.” Of 8 surveys, 4 responses related to subject = 2 *a little bit*, 1 response related to subject = *nothing at all*, and 1 response related to subject = none chosen).
- All visitor responses related to subject (4 out of 8) respond “Yes” in answer to whether they could imagine themselves participating in a project like this, indicating what they might need in order to do this (e.g., *need more info . . . ideas / suggestions . . . not sure*—visitor comments, Dec 2).
- Note: Four out of 8 interview responses indicate high interest levels (1= “4,” 2 = “5,” and 1= “6”) for elements in the area other than the Sunflower presentation itself (e.g., *animals! Rascally raccoons; ties to Oakland today and recent history; reading about . . . Futures Lab; stuffed animals . . . raccoons*—visitors comments, Dec 2).

What's Not Working

- Note: There are no indications of what may not be working from the surveys.
- See staff notes for possible observation findings relevant to this animation.

Implications / Recommendations

- Consider posting explicit ideas, suggestions, information about how to get involved in Community Science projects like this and/or for sharing what visitors may already be involved in, with contacts listed.

Community Science: iNaturalist

What's Working

- Most visitors rank a high level of interest in this subject. Of 13 surveys using a scale of 1 to 6, where 1 is *not interested* and 6 is *very interested*, 3 responses related to subject = “6,” 6 responses related to subject = “5,” 2 responses related to subject = “4,” and 2 responses related to subject = none chosen.
- Most visitors rank their level of prior knowledge of this subject as “a little bit.” Of 13 surveys, 9 = *a little bit*; 3 = *nothing at all*; 1 = *none chosen*.
- Most visitor responses related to subject (12 out of 13) respond “Yes” in answer to whether they could imagine themselves participating in a project like this, indicating what they might need in order to do this (e.g., *an invitation; a class; more information about opportunities; signed up today to participate; the email I anticipate receiving that connects me to the project*—visitor

comments, Dec 2).

- Note: 5 out of 13 interview responses indicate high interest levels (1= “6,” 3 = “5,” 1= “4,” and 1 = none chosen) for elements in the area other than the iNaturalist presentation itself (e.g., *road kill statistics! Bird safety, newts; Redwood forest immersion; learning about background displays; echo chamber culvert*—visitor comments, Dec 2).

What's Not Working

- Note: There are no indications of what may not be working from the surveys.
- See staff notes for possible observation findings relevant to this animation.

Implications / Recommendations

- Consider posting explicit ideas, suggestions, information about how to get involved in Community Science projects like this and/or for sharing what visitors may already be involved in, with contacts listed.

Cordell Bank Section: bolus dissection demonstration

This dissection demonstration was lead by Jenny Stock of Cordell National Marine Sanctuary. Eleven Cultural Commons surveys were gathered for this animation.

What's Working

- Most visitors report one-word descriptions of the experience that are positive (e.g., *informed, inspired to act, empowered, concerned, educated, engaged* —and in answer to what made them feel this way . . . *dissection of an albatross bolus and seeing all the plastic inside; The conversation I had about the Alameda County bag law that will go into effect to reduce plastic and things I can do to reduce my plastic use; Concerned about the plastic and garbage in the ocean-impact on wildlife; My awareness that I had never really thought about How the products we produce really effect the animal life around*—visitor comments, Dec 2).
- Some visitors report response about what was “surprising” (e.g., *the scale/impact of pollution; how we have laws about dumping trash in the water near the coast but not throughout the Oceans*—visitor comments Dec 2).

What's Not Working

- Note: There are no indications of what may not be working from the surveys.
- See staff notes for possible observation findings relevant to this animation.

Implications / Recommendations

- Consider having live, mediated dissection activity related to plastics as a regular feature in this lounge area to strengthen conscious connections for visitors between plastics and impact on the oceans initiated by exhibit content.

7. Overall gallery understanding and experience take-aways

Intent

The intent of the self-administered exit survey was to gather qualitative information about visitors' understandings and experiences from the gallery overall in order to provide indication of whether main messages and intentions were being successfully conveyed, [e.g., What might be meaningful or surprising? Where did visitors feel a particular connection to nature? What did visitors perceive the gallery to be “about”? What questions did visitors have as they went through the gallery?].

Method (See instrument in Appendix J.)

- Visitors were recruited to complete an exit survey on their way out of the gallery before leaving. On all occasions, a table with seating was provided in a well-lit area near the exit. On Nov 11 and Dec 2, when live animations were running and larger numbers of families with children were recruited for this survey, a coloring activity was provided for children, making the completion of the survey manageable for the adults and yielding a greater rate of completed surveys than had

been collected in earlier hours without the coloring activity.



Findings

Two-hundred twelve self-completed exit surveys were gathered over the course of four preview events.

What's Working

- Most visitors reported that full-body immersion in an exhibit creates a strong feeling of connection with nature [e.g., Redwoods, Cordell Theater, and fort / tent YMCA co-creation installation].
- Most visitors record a question in response to request to do so at end of survey that indicates curiosity or anticipation about the completion date of the gallery, thoughtful engagement with content, desire for particular interactive experiences, or inquiries about how to get involved with preserving and restoring diversity (See Appendix K).
- Many visitors identify elements that are “surprising” or “particularly meaningful”.
 - *I really liked the local context and being able to see changes in Oakland; Learning about habitat restoration; The history of Oak trees/ redwood trees in the area and how they integrated into our early settlements; Child-oriented..great! Thoughtful, interesting exhibits; Focus on "urban" nature. A lot of connection to contemporary natural history, Loved how it was focused on local habitat—visitor comments Oct 12*
 - *Gorgeous design, fantastic interaction; Seeing beyond, beneath, the surface—seeing nature in depth; Very glad to see effort to make connections to current issues. Exhibit hands on approaches engaging. Not too child-focused. Strikes good middle ground. Fresh and relevant; The artistic display of bottles and caps above the display on the ground. We need to do a better job of keeping mother earth clean; Love to see the process/preview how this is done—visitor comments Oct 26.*
 - *Everything we do leaves an impression on our earth-it can be good or bad for both us and the earth; the way they depicted the environment and human impact was cool, without being preachy. It made me think about my own impact and the Cordell Bank interactions were awesome; whole new experience compared to the old exhibit. New perspectives on urban environment and unique features of California; migration map, computer display of fish/birds; loved the Cordell bank exhibit, especially map showing continental shelf and migration patterns. Also native bees- very interesting. Plastic also good—visitors comments Nov 11.*
 - *Use of ambient sound effects, use of digital screens esp. Pacific migrations; Build-out of storm drain! Redwood forest; I will tell my friends about the EBRPD exhibit; Mola Mola fish are surprisingly large; How focused the gallery is on CA - specific natural habitats - esp. local to Oakland/SF Bay (e.g., redwood forest, creeks, urban environment); The fact that you want the public's feedback. And that you are using artists for work—visitor comments Dec 2.*
- Some visitors report that specific animals or depictions in a case prompted strong feelings of connection to nature (e.g., *snowy plover; Seeing coyote/fox and the Cordell Bank—visitors comments various dates*).
- Some visitors report that the program / live Animations create a sense of connection to nature

(e.g., *EB RPD exhibit w/ the naturalist available for demo and questions; Oddly enough the road kill exhibit made me realize how many creatures here in the Bay Area I have never encountered*—visitor comments

Dec 2).

- Some visitors ask how to get involved and what they can do related to various concerns depicted throughout the gallery.
- Some / Few visitors report the gallery is “about” at least one element of the main intended theme or Big Idea (e.g., *Wonder, delight, discovery, responsibility*—visitor comment Oct 26.)

What’s Not Working

- Some / Many visitors report that they perceive the gallery to be “about” climate change.
- Some visitors struggle with the overall purpose and message of the gallery (e.g., *What else are you planning to do? What are you really trying to tell people about nature? Why are you sharing this exhibit with us?* —visitor comments, Nov 11).
- Some visitors express confusion about why Oakland is the first experience in a gallery about nature.
- Many visitors ask for revised signage [e.g., larger typeface; more clarification (What is a ‘bank’? Where is Cordell Bank?), larger maps and pictures].

Implications / Recommendations

- Consider adding more signage that clearly states the time line for partial and complete installation of the gallery.
- Consider more explicit statement of intent re: Oakland’s positioning as exemplary model for the human/nature interface that is the subject of the entire gallery.
- Consider providing a full-body immersion experience in more sections to promote a strong feeling of connection to nature specific to each place.
- Consider more explicit statement of intent re: experience of connection with nature and encouraging action to protect and restore diversity.
- Consider adding explicit signage and online location for range of questions and contacts, with simple steps for getting involved in research and efforts to protect and restore diversity.

END DRAFT 1

Appendix A: Intended Impacts for Public Audiences

Table 1. Intended Impacts for Public and Professional Audiences

Public Impacts	Category	Objectives	Evidence
Visitors will understand California's designation as a biodiversity hotspot.	Awareness, knowledge, understanding	Visitors will be able to describe California as home to many unique plants and animals found nowhere else in the world.	In tracking studies, 75% of visitors will use the place-based diorama interpretive devices. In exit interviews, 75% of visitors will be able to describe why California is a hotspot in terms of biodiversity or environmental degradation.
		Visitors will be able to articulate their understanding of differences of character between the kinds of habitats that are featured in the gallery.	
		Visitors will reinforce their awareness that human activity threatens the survival of California's unique plants and animals in a variety of ways.	
Visitors and communities will experience creative engagement with OMCA exhibits.	Engagement	Community members will work with the museum to create exhibits about their experiences in nature.	In exit interviews, 75% of community members and visitors will report satisfaction and a feeling of contribution as a result of their participation.
		Visitors will contribute their own questions, issues, and affirmations to exhibits in the gallery.	
Visitors will make a personal connection to animals, plants, and ecosystems, even in urban environments.	Attitude	Visitors will be able to describe nature in their urban neighborhood, park, or backyard.	In exit interviews, 85% of visitors will express in their own words or images a variety of emotions or personal connections to a natural place.
		Visitors will report an increased emotional connection to the 5 California places and the people who live there, and will extend this connection to other natural environments.	
		Visitors will empathize with the plants and animals that share their environment, and with people who are protecting them.	
Visitors will have an enduring positive attitude toward nature.	Attitude	Visitors will indicate a more positive attitude about California's natural places.	Follow-up feedback from visitors will reveal enduring positive attitudes toward plants, animals, ecosystems, and places they represent.
Visitors will change their behavior toward nature.	Behavior	Visitors will take individual or collective actions that will benefit the environment, or indicate the intent to take action.	Repeat visitation feedback will reveal that participants engaged in at least one positive behavior as a result of their gallery experience.
Visitors will gain new skills from using the interactives.	Skills	Visitors will learn new skills to search for information about habitats and wildlife, or in analyzing scientific visualizations.	85% of visitors will demonstrate at least one skill to gain information.
Professional Impacts	Category	Objectives	Evidence
Professionals will obtain techniques for enhancing dioramas to strengthen visitors' connections to place.	Skills	Professionals will be able to describe one or more approaches they would use to enhance their dioramas to strengthen visitors' connection to place.	Follow-up interviews will reveal that 20% of professionals applied at least one approach tested as part of <i>Hotspot California</i> .

Appendix B: Staff questions for fall preview studies generated April 2012

Re: connection to, and interest in, nature

- Where are visitors having an authentic experience of nature or having inspiring connections with nature?
- What triggers visitors' imagination and connection with the natural world in ways they had not experienced?
- Are visitors more interested in California nature than when they first came into the gallery?
- Does the gallery inspire a desire to spend time in natural California – or [take action] behalf of natural California? How can we encourage that more?

Re: surprise

- What are visitors taking away about Oakland that was a surprise to them?
- Are visitors surprised about how much nature there is in Oakland?
- Did visitors discover something new about Oakland? Or California?

Re: emotional connection

- Where are we making emotional connections [for visitors]?
- Did [visitors] find someone / something that inspired [them]?
- Did something make [them] smile?
- Does the experience successfully evoke visitors' feelings about nature?

Re: visitors' questions

- Do visitors feel their questions are being registered? —are present?

Re: sharing stories

- Were visitors moved to share a story?
- Is anything in the gallery promoting memories – individual or collective about familiar presences?

Re: human presence

- How would visitors describe the feeling about human presence in nature that is conveyed overall? Do visitors notice human presence in the gallery? How can we bring in the human perspective without losing the animal perspectives?
- How do visitors interpret inclusion of human presence in the gallery?

Re: relevance

- Do visitors see themselves in the gallery?
- Are there people like you in California making a difference?
- Do visitors feel they are seeing themselves in the gallery?
- Do visitors “see themselves in the gallery? Or does this gallery speak to you and your interests?
- Are we successfully tapping into visitors' prior experience?

Re: biodiversity

- How do we convey that California's biodiversity ranks among the world's most important places?
- What do visitors take away as the main idea of their experience here overall?

Re: taking action / making a difference

- Do visitors feel inspired by the action the other people are doing? How can we get visitors to understand that change is not inevitable – they can make a difference for the better? Do visitors feel compelled to take action in their community?
- How do people see their direct influence in/on nature?

Re: organization of gallery and design?

- Does the habitat level interpretation work with the presence of the dive card level of interpretation?
- Does the organization of the gallery and flow of ideas make sense? What is confusing?
- Is the design of new elements and dioramas creating a sense of authenticity?
- How can each of the 7 places remain stylistically unique and still retain a cohesive thread that joins the gallery together to convey a whole story?
- What will inform the approach to the introduction area of the gallery? Set up a sense of place and connection to nature?
- Do visitors understand where the habitats in Oakland are? Can we really get visitors to go outside and come back in? (campus investigation)
- Do visitors understand the 7 places framework?

Re: expectations

- Did the experience meet the expectations the visitor had before coming in?

Re: skills

- Using/ reading data visualizations
- Is gallery fostering observation skills?

Re: confusion / challenges

- What do visitors find confusing? @ZONE? @section? @groupings? @components?
- What assistance do visitors need to grasp larger concepts? Where do they need interaction?
- Do people feel they know what to do at the different places?

Re: Community Voices

- How will program platforms work for us, for visitors, and for partners?
- How personally relevant was the Community Voice experience/s?

Re: what's working and why

- What is the degree [of likelihood] that visitors will come back?
- What were your favorite exhibits and why? (What were you most interested in?)
- What types of program activities or exhibits would you like to see more of?

Appendix C: Observation protocol for INTRO prototype

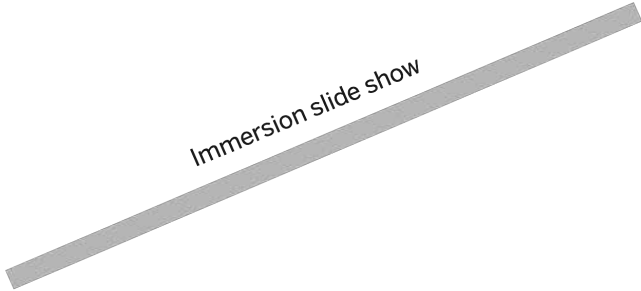
NS INTRO—OBSERVATION—OCTOBER 12, 2012

Data Collector _____ Time: Start _____ End _____

• **Questions**

• **Expression Capture**

- *inspiration/surprise*, e.g., WOW, Oh, I want to...
- *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...



Comment Wall

Map/Text/Images

	Expressing confusion	Expressing surprise Laughing/smiling	Looking quickly	Looking extensively	Talking/ Pointing	Nodding	Writing
ADULTS							
CHILDREN (0-12)							

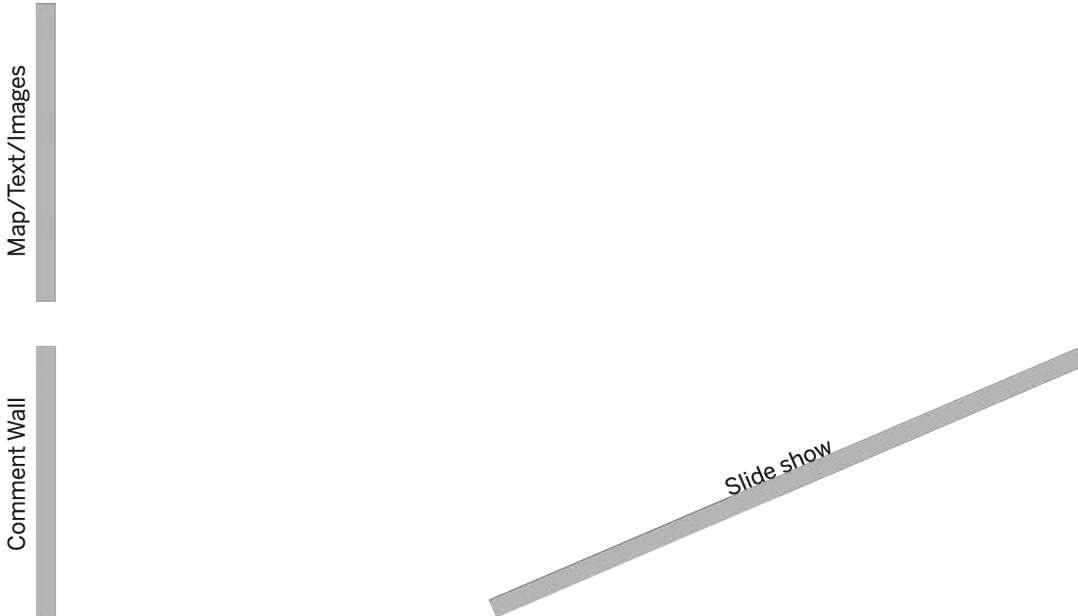
Appendix C: Observation protocols for INTRO prototype (cont'd)

NS INTRO—OBSERVATION—NOV 11, 2012

Data Collector _____ Time: Start _____ End _____

• Questions • Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to... - *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...



	Expressing confusion	Expressing surprise Laughing/smiling	Looking quickly	Looking extensively	Talking/ Pointing	Nodding	Writing
ADULTS							
CHILDREN (0-12)							

****NOTE: Above protocol design was used for both Oct 26 and Nov 11 test dates.**

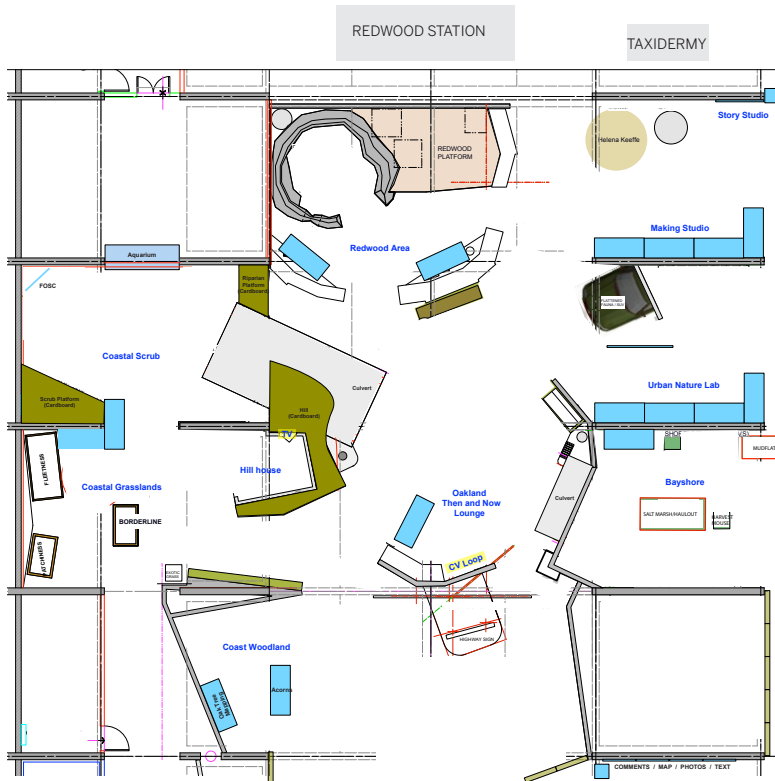
Appendix D: Tracking instruments, Oakland Section

NS OAKLAND—TRACKING—OCTOBER 12, 2012

Data Collector _____ Time: Start _____ End _____ (15 min. block) Group # _____

Reason for selecting group (watch for engagement/curiosity of 2–4 people) _____

ADULTS: _____ CHILDREN (age 0–12): _____



• Questions

• Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to...
- *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...

1	Expressing confusion
2	Looking
3	Talking/Pointing
4	Manipulating/Interacting

Appendix D: Tracking instruments, Oakland Section (cont'd)

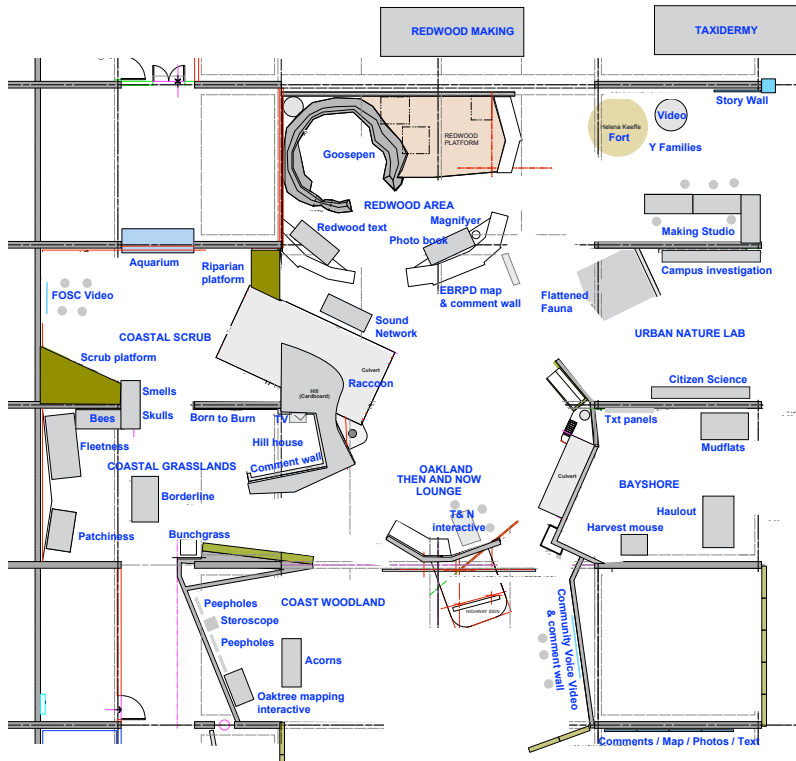
NS OAKLAND—TRACKING—OCTOBER 26, 2012

Data Collector _____ Time: Start _____ End _____ Group # _____

ADULTS: _____ CHILDREN (age 0–12): _____

• Questions • Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to. . . - *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...



1	Expressing confusion
2	Looking
3	Talking/Pointing
4	Manipulating/Interacting

Appendix D: Tracking instruments, Oakland Section (cont'd)

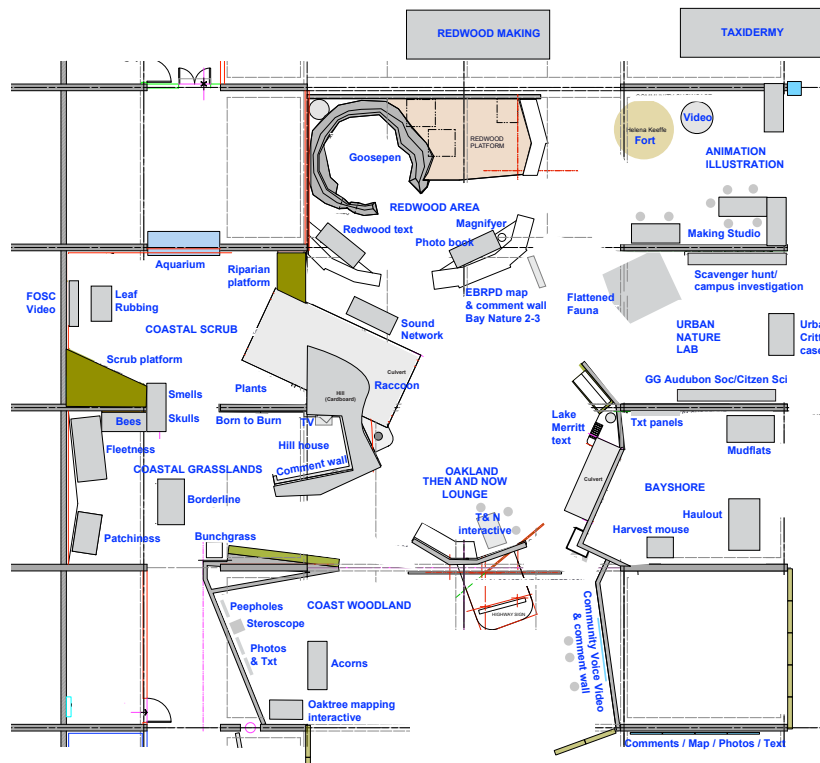
NS OAKLAND—TRACKING—NOV 11, 2012

Data Collector _____ Time: Start _____ End _____ Group # _____

ADULTS: _____ CHILDREN (age 0–12): _____

• Questions • Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to... – *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...



1	Expressing confusion
2	Looking
3	Talking/Pointing
4	Manipulating/Interacting

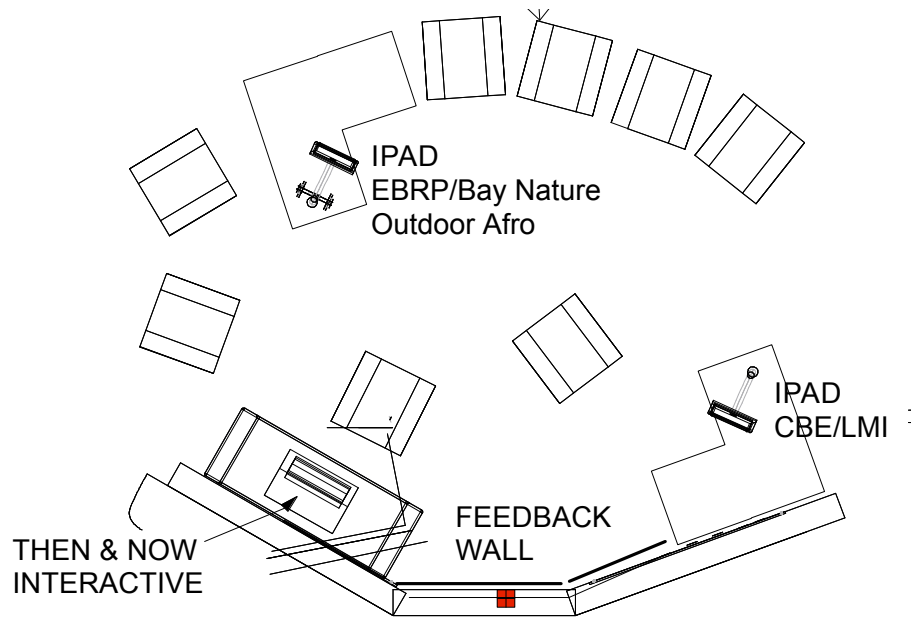
Appendix E: Instruments for Now-Then Lounge, Oakland Section

NS OAKLAND THEN & NOW LOUNGE—TRACKING—DEC 2, 2012

Data Collector _____ Time: Start _____ End _____ Group # _____ ADULTS: _____ CHILDREN (age 0–12): _____

• Questions • Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to . . .
- *connection to nature*, e.g., This reminds me... This is like... I like...
- *taking action*, e.g., We need to... How can we... I wish we could...



Appendix F: Instruments for guide card (Borderline)

<p>Oakland Museum of California INST_Guide Card / Borderline_Oct 12, 2012 Observation Protocol</p> <p>Gallery of California Natural Sciences Observation Protocol</p> <p>Data collector _____ Individual / Group : #A _____ #c _____</p> <p>[Script – as needed.] We're interested in how visitors are using these. Mind if I take some notes? <i># visitors using field guide (Oct 12: spiral booklet)</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="checkbox"/> pointing</td> <td><input type="checkbox"/> talking – exhib related</td> </tr> <tr> <td><input type="checkbox"/> flips through quickly</td> <td><input type="checkbox"/> talking – not exhib related</td> </tr> <tr> <td><input type="checkbox"/> looks at pictures</td> <td><input type="checkbox"/> expresses disappointment</td> </tr> <tr> <td><input type="checkbox"/> comments on pictures</td> <td><input type="checkbox"/> expresses confusion</td> </tr> <tr> <td><input type="checkbox"/> reads slowly</td> <td><input type="checkbox"/> expresses excitement</td> </tr> <tr> <td><input type="checkbox"/> comments on text</td> <td></td> </tr> <tr> <td><input type="checkbox"/> has difficulty manipulating</td> <td></td> </tr> <tr> <td><input type="checkbox"/> uses for looking at case – (circle) quickly / slowly</td> <td></td> </tr> </table> <p>pages used <input type="checkbox"/> case pic w/names <input type="checkbox"/> case pic w/numbers <input type="checkbox"/> text /numbers <input type="checkbox"/> Borderline <input type="checkbox"/> Venturing out <input type="checkbox"/> Todd Keeler Wolfe <input type="checkbox"/> Closer Look</p> <p>QUESTION Capture EXPRESSION Capture</p> <ul style="list-style-type: none"> ○ <i>inspiration/surprise</i> (e.g., WOW...; Oh...; I want to go see...) ○ <i>connection to nature</i> (e.g., This reminds me...; This is like...; I like/d...) ○ <i>taking action</i> (e.g., We need to...; How can we...; I wish we could...) <p>OTHER...</p>	<input type="checkbox"/> pointing	<input type="checkbox"/> talking – exhib related	<input type="checkbox"/> flips through quickly	<input type="checkbox"/> talking – not exhib related	<input type="checkbox"/> looks at pictures	<input type="checkbox"/> expresses disappointment	<input type="checkbox"/> comments on pictures	<input type="checkbox"/> expresses confusion	<input type="checkbox"/> reads slowly	<input type="checkbox"/> expresses excitement	<input type="checkbox"/> comments on text		<input type="checkbox"/> has difficulty manipulating		<input type="checkbox"/> uses for looking at case – (circle) quickly / slowly		<p>Oakland Museum of California INST_Guide Card / Borderline_Oct 26, 2012 Observation Protocol</p> <p>Gallery of California Natural Sciences Observation Protocol</p> <p>Data collector _____ Group # _____ #A _____ #c (0-12) _____</p> <p>[Script – as needed.] We're interested in how visitors are using these. Mind if I take some notes? <i>visitors using guide (Oct 26: ACCORDION)</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="checkbox"/> does not engage (sets down & moves on)</td> <td><input type="checkbox"/> pointing</td> </tr> <tr> <td><input type="checkbox"/> glances over quickly</td> <td><input type="checkbox"/> nodding</td> </tr> <tr> <td><input type="checkbox"/> talking – not exhib related</td> <td><input type="checkbox"/> looks overall at pictures</td> </tr> <tr> <td><input type="checkbox"/> expresses disappointment</td> <td><input type="checkbox"/> comments on pictures</td> </tr> <tr> <td><input type="checkbox"/> expresses confusion</td> <td><input type="checkbox"/> talking – exhib related</td> </tr> <tr> <td><input type="checkbox"/> expresses disinterest</td> <td><input type="checkbox"/> reads slowly</td> </tr> <tr> <td><input type="checkbox"/> has difficulty manipulating</td> <td><input type="checkbox"/> comments on text</td> </tr> <tr> <td></td> <td><input type="checkbox"/> expresses excitement</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> uses for looking at case (circle) quickly / slowly</td> </tr> </table> <p>Observable pages used <input type="checkbox"/> case pic w/names <input type="checkbox"/> case pic w/numbers <input type="checkbox"/> text /numbers <input type="checkbox"/> Borderline <input type="checkbox"/> What's Happening... <input type="checkbox"/> Todd Keeler Wolfe <input type="checkbox"/> Closer Look</p> <p>Other notes:</p>	<input type="checkbox"/> does not engage (sets down & moves on)	<input type="checkbox"/> pointing	<input type="checkbox"/> glances over quickly	<input type="checkbox"/> nodding	<input type="checkbox"/> talking – not exhib related	<input type="checkbox"/> looks overall at pictures	<input type="checkbox"/> expresses disappointment	<input type="checkbox"/> comments on pictures	<input type="checkbox"/> expresses confusion	<input type="checkbox"/> talking – exhib related	<input type="checkbox"/> expresses disinterest	<input type="checkbox"/> reads slowly	<input type="checkbox"/> has difficulty manipulating	<input type="checkbox"/> comments on text		<input type="checkbox"/> expresses excitement	<input type="checkbox"/> uses for looking at case (circle) quickly / slowly			
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Appendix G: Coastal Issues Lounge Instruments

NS LOUNGE—OBSERVATION—OCTOBER 12, 2012 Coastal Issues Lounge

Data Collector _____ Time: Start _____ End _____ (15 min. block) Group # _____

	Expressing confusion	Expressing surprise Laughing/smiling	Looking quickly	Looking extensively	Talking/ Pointing	Nodding	Writing
ADULTS							
CHILDREN (0-12)							

- **Questions**
- **Expression Capture**
 - *inspiration/surprise*, e.g., WOW, Oh, I want to. . .
 - *connection to nature*, e.g., This reminds me..., This is like..., I like...
 - *taking action*, e.g., We need to..., How can we..., I wish we could...

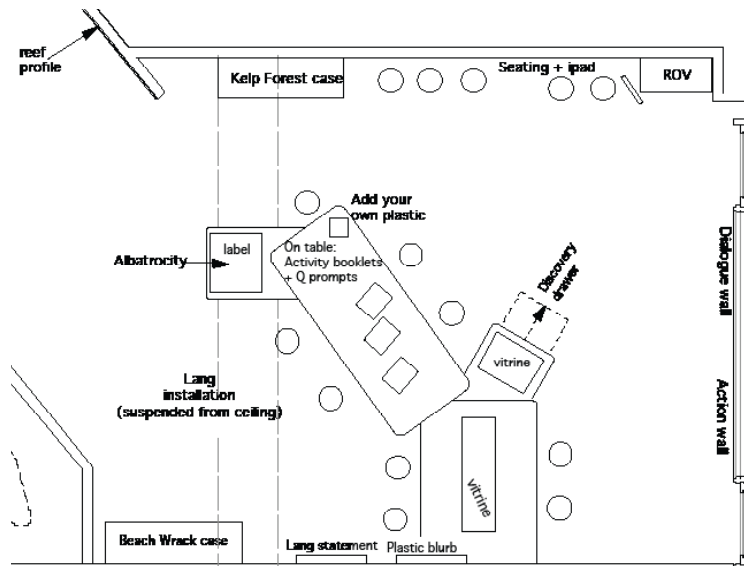
Appendix G: Coastal Issues Lounge Instruments (cont'd)

NS LOUNGE—TRACKING—NOV 11, 2012 Coastal Issues Lounge

Data Collector _____ Time: Start _____ End _____ Group # _____ ADULTS: _____ CHILDREN (age 0–12): _____

• Questions • Expression Capture

- *inspiration/surprise*, e.g., WOW, Oh, I want to . . . – *connection to nature*, e.g., This reminds me..., This is like..., I like...
- *taking action*, e.g., We need to..., How can we..., I wish we could...



****NOTE: Above instrument design was used for both Oct 26 and Nov 11 test dates.**

Appendix H: Cultural Commons Survey, selected live animations, (self-completed)

The Story of California. The Story of You.
Oakland Museum of California



1. As you leave this part of the gallery, what is the ONE WORD description of how you feel right now? _____
2. What, *in particular*, made you feel that way?
3. What, if anything, was surprising to you here in this part of the gallery?

Thank you for sharing this information!

STAFF
Date: _____ Animation: _____ Time: _____

Appendix I: Animations Instrument

<p>Oakland Museum of California NS scavenger hunt / NOV 11, 2012</p> <p>Gallery of California Natural Sciences Observation / Interview Protocol</p> <p>Data collector _____ Group # _____</p> <p>[Recruitment script] #A _____ #c (0-12) _____</p> <p>We're interested in how visitors are responding to this activity. Mind if I ask a few questions?</p> <ol style="list-style-type: none"> As you leave this activity, what is the ONE WORD description of how you feel right now? _____ What, <i>in particular</i>, made you feel that way? What, if anything, did you feel you [-OR- you and the kids] <u>'discovered'</u> while doing this activity? [If nothing 'discovered'] What, if anything, might you [-OR- you and the kids] have confirmed while doing this activity? How did it work for you in general? Was there anything confusing or frustrating? (Circle one.) yes no [If yes] What was that? Can you think of anything that would make this activity more fun for you? 	<p>Oakland Museum of California NS GGAS_Bird_ID / NOV 11, 2012</p> <p>Gallery of California Natural Sciences Observation / Interview Protocol</p> <p>Data collector _____ Group # _____</p> <p>[Recruitment script] #A _____ #c (0-12) _____</p> <p>We're interested in how visitors are responding to this activity. Mind if I ask a few questions?</p> <ol style="list-style-type: none"> As you leave this activity, what is the ONE WORD description of how you feel right now? _____ What, <i>in particular</i>, made you feel that way? What, if anything, did you feel you [-OR- you and the kids] <u>'discovered'</u> while doing this activity? [If nothing 'discovered'] What, if anything, might you [-OR- you and the kids] have <u>confirmed</u> while doing this activity? How did it work for you in general? Was there anything confusing or frustrating? (Circle one.) yes no [If yes] What was that? Can you think of anything that would make this activity more fun for you?
<p>Oakland Museum of California NS FOCS_Leaf_activity / NOV 11, 2012</p> <p>Gallery of California Natural Sciences Observation / Interview Protocol</p> <p>Data collector _____ Group # _____</p> <p>[Recruitment script] #A _____ #c (0-12) _____</p> <p>We're interested in how visitors are responding to this activity. Mind if I ask a few questions?</p> <ol style="list-style-type: none"> As you leave this activity, what is the ONE WORD description of how you feel right now? _____ What, <i>in particular</i>, made you feel that way? What, if anything, did you feel you [-OR- you and the kids] <u>'discovered'</u> while doing this activity? [If nothing 'discovered'] What, if anything, might you [-OR- you and the kids] have <u>confirmed</u> while doing this activity? How did it work for you in general? Was there anything confusing or frustrating? (Circle one.) yes no [If yes] What was that? Can you think of anything that would make this activity more fun for you? 	

Appendix J: Exit Survey, self-completed

The Story of California. The Story of You.
Oakland Museum of California



Gallery of California Natural Sciences

1. What might you tell a friend was surprising or particularly meaningful for you in this natural sciences gallery today?

2. Was there any place in particular in this gallery that you felt a strong connection to nature?
(circle) YES NO

WHERE or WHAT was that for you?

3. What would you say this Gallery of California Natural Sciences is about?

What did you see or experience that makes you say that?

4. Please share a question that came up for you as you went through this gallery today.

Thank you for sharing this information!

Your voice helps shape the NEW Gallery of California Natural Sciences.

Appendix K: visitor responses to exit survey question #4

4. Please share a question that came up for you as you went through this gallery today.

Cheers

Oct 12

- Loved it!
- Totally different than what I remember of the previous gallery - refreshing! Way to go OMCA! Thank you!
- I loved it! And once again a great place to bring visitors who want to know about where we live and why we love it (in spite of earthquakes and fire).
- How personal and individual each aspect is.

Oct 26

- Wasn't sure if the background demos (trees, taxidermy) were part of the final exhibit but would be good. Great Job!

Nov 11

- Love where you are going and how you are trying to optimize the experience through feedback.
- Incredible creativity in presentation of important messages-make environmental subjects fun and interesting.
- Is any of it interactive? How is Oakland and other habitats related, the ocean is downstream from all. Seems that could be reflected in the ocean section on the wall/plastics area. Great job everyone, very inspiring to see, my niece is so excited of it all!

Dec 2

- Thank you!
- No real questions, just can't wait till 7/13 well...why can't we learn to cooperate w/ nature, not conquer it (or try to)?

Orientation/INTRO/ way finding

Oct 12

- Which way do I go? The history gallery is in chronological order, so it's easy to navigate through. But this one was a little overwhelming. I like the black carpet.
- Will there be a path/ "track" to indicate the route through the exhibit to maximize the experience?
- At first look at the orientation maps, will it be revised into locations in the gallery?

- Could maps and pictures be larger?
- How about more emphasis, especially near the entry, on here's where we are and here's what might be done to preserve, enhance and in some cases restore particular aspects. You have many, many school kids visiting - let's point them ahead and not focus on what prior generations may have done in ignorance and/or greed.
- Where were these 7 places chosen to feature?

Oct 26

- What is the total goal of the exhibit?
- Will the entire gallery focus on our broader Bay Area? Plusses – but I loved the former gallery that respected the diversity of landscape and animals all over CA.
- Will the other regions of California still be displayed?

Nov 11

- What else are you planning to do? What are you really trying to tell people about nature? Why are you sharing this exhibit with us?
- It's much more informative than it used to be. The arrangement of the exhibits makes it easier to absorb information, now that its not just display case after display case. One suggestion: there's a lot of really interesting stuff in the drawers, but it's not obvious enough that visitors should look into them.

Dec 2

- Needed some more signs - was there going to be a sign explaining the shorebird exhibit?

Oakland

Oct 12

- If plastics are an issue in the ocean, why support the industry by making plastic redwood leaves?
- The tent (YMCA co creation) needs more explanation.
- Would have loved to see a bigger map, and before and current image of creeks in Oakland/Berkeley. Amazing how many creeks are running underground now.
- I love Oakland, but will visitors from elsewhere be interested? How will they be grabbed & drawn in?
- Dimond Park was misspelled "Diamond" on a map.
- I think it's important that children can find their community watersheds on the maps - including "deep" east.

- needs more emphasis on streams, creeks. EBRPD is THE major way public can experience the area!! Wed hikes/the birding/children programs. Over 16 pp of programs.
- How many pounds of waste dump into Lake Merritt daily/weekly/monthly? Annual? Thank you...really fun.
- Why isn't there anything on sudden oak death?

Nov 12

- More about Oakland history
- To what extent has the ecosystem fully recovered from the Oakland Hills fire?
- Being so used to how the old gallery flowed, I was a bit confused by the new focus on urban landscape as the first thing you encounter. "Urban" is a great subject but it feels distracting when expecting and "understanding California's nature" experience. I would place it more towards the end of the exhibition space.
- What's specific to Oakland?
- Too much plastic, I especially object to replacing 39yr old sprigs, no plastic-they could have used real ones, which could last another 35yrs.

Dec 2

- Where do humans fit in the current neighborhoods, not how it was in the past in my neighborhood?
- How did the Oakland Fire start?
- How did the Oakland Fire start?
- Were Oaklanders in 1906 happy/willing/angry/ resentful when their trees were taken to rebuild another city? How much was lost?
- How has Oakland and SF's relationship proximity affected each of their natural environments?
- What kind/species of grass is there with the roots hanging down?
- What did Oakland look like before human contact?
- Is there a better place on earth than Oakland?
- Why was there a fire section?

Cordell bank

Oct 12

- If plastics are an issue in the ocean, why support the industry by making plastic redwood leaves?
- Wanted to ID a spot on the Cordell relief map. Labels, please.

- One small item. Cordell Bank discovery poster - George Davidson was not a "sea captain" Still young in 1853, became the Pacific Coast head of the US Coast Survey, led a long life in science, Pres of Calif Academy of Sciences for many decades. I have microfiche of Nat'l Archives records of the period and might be able to find correspondence on his "discovery" + Cordell's 1869 survey. If interested please phone me sometime. 510-654-3180. The published biography is not very good, much better is on M.A. thesis at Claremont grad school. I have Jim Ratcliff both & will look to see what, if anything, they say on this spot.
- Where exactly is the Cordell Bank? (Got best idea after circling through - listening to/watching 2nd speaker on little screen). Would be nice to mark it clearly on large exhibit.
- How does an albatross feed its young? Where does it nest?
- Why haven't I heard of the Cordell Bank? There is a disease attacking oaks - are we doing anything about it?
- What does the bull elephant seal sound like?
- Why was the specific area of the Cordell bank set aside? Is it (benefits & variety of life) limited to just that area?
- How deep was Cordell reef? Can I see it from the water?

Oct 26

- What was the point of the movie screen room? The bean bay chairs are great, but I'm not sure what I was watching. Why aren't there more signs? So many details left out.
- Is the plastic gyre really as big as Texas? Prove it visually by comparison -
- I thought Cordell Bank was just water, but there were seals on land.

Nov 11

- How do you get the remote control replica rove/video thingy up to the surface?
- Mola molas get that big?
- The multimedia/projection room videography was too artsy and felt very artificial/fake. If the fauna is so amazing, why put the weird animation (fish animation) in it?

Dec 2

- Would the interactive dive computer station include color video?
- Does anyone dive to the bank today?
- It was delightful to meet the Cordell Bank divers.

- Add north arrow to the model seascape..Headphone interviews of Cordell divers - I listened for a while & heard one sequence 3 times, a couple of others once - Any chance of having them run straight through so you can hear them all?
- Will there be any fish or flora in the oceans exhibit? It would be good to have live exhibits in that section, not just projections or replicas (e.g. a few jellies, anemones, small fish, kelp forest)
- What are the other 3 upwelling places?
- Why so much underwater stuff (5 y/o)? I asked about touchability of the projection wall - I had to drag my kids out because they wouldn't stop touching it.
- Can you make the platform mobile to imitate deck of a ship?

Activism / Intention

Oct 12

- Is there a way to take this information into the community, to restore creeks & trees to their former glory?
- It made me curious about the San Joaquin Valley and how farming and water issues there affect the environment, e.g. SJV river, groundwater, soil, etc..
- How do I learn more about human's impact on the ecosystem?
- Any call to action, encourage people to preserve habitat & plant more.
- What is being done to maintain environment.
- How do I help protect this?
- I want to get actively involved in the citizen science and know what I can do to affect positive environmental change both in personal practice and through legislation. Is this "WHAT YOU CAN DO" incorporated for visitors to really take-away?

Oct 26

- How can we ask MACRO & MICRO questions at the same time? Big Picture – little picture.
- History can be changed for the better - How can we help others to see that?
- What can be done about all of the debris in Lake Merritt?

Nov 11

- What/who is working to change the way development occurs in CA?
- What can I do to help?
- What degree do you need to become a taxidermist?
- How to keep the ocean clean?
- What can we do to preserve open space while supporting urbanism?

- Why do people transform the environment so profoundly and so quickly?
- Whether humans have had any positive effects on the environment.

Dec 2

- What can be done to preserve the habitat & species we saw today?
- How to reduce plastic use in my home.
- Can you provide more information about how the public can become involved w/ maintaining/restoring Oak and redwood trees in the area?
- How can we help preserve the natural environment?
- anyway to get involved.
- How do I preserve nature better?
- Yes, how can I help? mrtonycollins@gmail.com

Requests

Oct 12

- I would make a scavenger hunt for children. It could be exhibit-specific or throughout galleries. At the diving cam site, have a set of flip-ups for kids to find & identify different creatures & their adaptations. Love dioramas!
- How can this sense of design participation be fostered so that exhibit continues to be felt as an evolving, shared space.
- I hope there will be even more hands-on/interactive activities.
- Why weren't there more insects to see up close?
- Could they make the stuffed raccoon drop down every few minutes?
- You need to check the sound in some of your exhibits for consistency.

Oct 26

- How endangered are these animals? (Maybe you could color code their level of danger.)

Nov 11

- When will it be done? Can we organize school trips from Fremont?
- Listings of future projects.
- Consider putting up Nluggie Ely's pictures and native flowers shown here some years ago?
- When will it open? Will the new exhibits retain info on how the exhibits were made? I found this sneak peek really interesting on the "making of" aspects as much as the information on display.
- Will the lightning/storm area return?

- I was shock to see this: Please, please take away live taxidermy exhibit. Very upsetting and not necessary. There are tons of vegetarians, vegans in Oakland and elsewhere that don't appreciate this.
- How can I make my students more aware of these important issues? Need educator materials! Maybe a take away packet or web available curriculum

Other

Oct 12

- There seems to be a lot more work to be done still. Is the target opening date still next summer?
- I hope it's not ONLY going to be about man's relationship/affect on nature - I'd also want to learn about what I can't get to and what I might not know or see that's way out there in the northernmost parks in the state, or the highest parts. Also, I hope the ad-hoc nature/elements of the Oakland section are in fact just temporary - the "unpolished" style of the history section upstairs unfortunately often reads as cheap or not well thought-out ahead of time.
- Such a huge & varied state; so little space in which to show it.
- How does Lake Merritt fit into all, though.
- Thank you for allowing this visit.
- Would you be able to create a more interactive immersive experience particularly of the ocean related exhibits.
- Why so little or nothing of the geological underpinnings of all this nature?
- I miss the California movie! I hope some of the old exhibits will come back. Why is the remodeling taking so long?
- Will you be returning many of the original exhibits? I miss the introductory photos hanging from the ceiling.
- How do we participate in the animation project. I hope there will be more interesting exhibits. The bees are fun, but need to be the focus. The Monterey Aquarium has an otter pelt to touch. Could we have birds or animal parts for touching? How about places to sketch from magnification? Please make many places to sit and sketch the flora and fauna! The seat in front of the bird is great. Please many more. The tent (is) fun. Lots of little nooks and sheltered places are playful, mysterious and a chance to get away from all the sound.
- What is it going to be like when it's finished?
- Importance of dates (time/era)
- Do you think that decades Exhibits are possible? 1950, 1960, 1970...

- What part of the natural world did all these people see today? What amazing things right in their yard, or their commute, out the office window??
- Where did you get the puma? Ok, actually, why did you choose the environments you did (i.e. Cordell vs. So Cal/S.B. Channel; more explanation for why, I think).
- How did you decide which things to make exhibits of/about.
- Where will the wonderful egg draws go? Why plastic for the redwood branches. Loved the old real ones. Thanks for preview!
- How much of the old exhibits will you keep cuz they were really great too.
- Where is the Cordell Bank? (Got my answer!) How much of this exhibit is old/original? When will the gallery open? This is SO cool! Thank you for letting me see this in progress.
- Are you in contact with the National Wildlife Federation? There is a CA district (Beth Pratt is director), and they support individual homes, or schools, etc. creating habitat for wildlife, in urban areas. Also, thank you for the demo by the taxidermist—she was so patient answering everyone's questions.

Oct 26

- Am I natural?
- When will it be done?
- When's it going to be ready?
- "N/A"
- Wow – I wonder what my students will say when they view this.
- The bees were really cool! I didn't know native bees don't produce honey.
- None
- Wasn't sure if the background demos (trees, taxidermy) were part of the final exhibit but would be good. Great Job!
- How long did it take to design this exhibit? And was it by design for the gallery walk through?
- Having staff working in the galleries that you can talk to was a treat. Could this continue?
- How would my students interact with the exhibit?
- Can this be an open exhibit as it is being made?
- Can you explain the varied topography without leaving Oakland? Yes, visit OMCA!
- Will the exhibits be the same with students?
- It's like IKEA on Monday night!
- When will you be done with the entire floor?

Nov 11

- The performers outside put me in a relaxed state
- Will you be labeling the exhibits with what they're showing? (especially the older exhibits) will be showing the different regions of the states like you had before?
- Were the animals on display (taxidermy) found in Oakland? East Bay?
- When will it be finished?
- Are they going to include live animals? (not sure if I'd like that)
- Can't wait until the official opening!
- What inspired this?
- Where is the desert life?
- Not sure...some interesting me, some don't

Dec 2

- What will the finished product look like? I will come back!
- Do you have learning kits or docents who attend schools?
- Will the video fish installation in the back become an actual tank? Or just a video experience?
- Would middle school students enjoy the gallery?
- What else is coming next in the future?
- No questions, Please keep up the good work :)
- What special exhibits might you have? How can I support you more? When will you open to the public?
- What upcoming exhibits are going to be set up?
- Why did you choose a science exhibit?
- What will the natural sciences look like in twenty years?
- Will the exhibit continue to be so interactive when completed?
- Did the speakers themselves take part in the creation of the exhibits?
- More information on history of how it evolved.
- When will it be finished? When can we come back?
- Are there going to be any real animals?
- Why is European modernity so destructive? How is the community input/survey data going to be used? Will the local communities have meaningful and easy access to this wealth of knowledge? :)
- Where did all the displays come from?