Formative Evaluation:
Testing of the Model Table and Mexican Era Section for the
Becoming Los Angeles Exhibition

Prepared for the
**Natural History Museum of Los Angeles County
Los Angeles, CA**

TABLE OF CONTENTS

LIST OF FIGURES

SUMMARY AND RECOMMENDATIONS

INTRODUCTION

The study, conducted by Randi Korn & Associates, Inc. (RK&A) for the Natural History Museum of Los Angeles County (NHM), reveals many findings that will help the NHM team further develop the exhibition *Becoming Los Angeles*. In this summary, we present findings that we believe will most inform NHM's work, using the study's objectives and our conversations with NHM staff as a guide. However, we encourage staff to mine the report for further details.

MEXICAN ERA SECTION

Findings show that the Mexican Era section is performing well. Encouragingly, more than one-half of visitors understand that there used to be many ranchos in the Los Angeles area, which led to the eventual devastation of the landscape as a result of overgrazing and the spread of foreign grasses introduced in the cattle's dung. This is quite encouraging given the complexity of the message and is likely the result of a well conceived exhibition layout and design. For the most part, visitors experienced the exhibit in the order that NHM intended. The lighting and power of object attracted visitors to the saber first and then to the orange background of the section's introductory text. Moreover, NHM had distilled the exhibit content down to the big idea.

Also noteworthy is that the connection between the touchdown object and the rest of the exhibit was much clearer to visitors than in the previous evaluation (RK&A, 2011). However, the concept is abstract, and for some visitors, the connection was not immediate. Symbols can be powerful forms of expression, but also challenging in that they require visitors to take the time to interpret the symbol beyond its face value. However, visitors to the exhibition will have greater opportunities to make connections between the touchdown objects and the exhibition's content than those who participated in this evaluation because NHM is incorporating touchdown objects throughout the exhibition. That is, through increased exposure to the schematic design of the exhibition, visitors will be more likely to understand that the touchdown objects are symbols of a trigger.

Similarly, while a small portion of evaluation participants understand that Mexican Independence was a trigger for the environmental degradation of Los Angeles, we believe that visitors to the entire exhibition will have much greater opportunities to absorb this message. For instance, some evaluation participants became caught up in the human story related to the Mexican Era. That is, visitors talked about the freedoms Mexico experienced when it gained independence from Spain as well as the tribulations Mexicans faced when they were later removed from California. Potentially, simply seeing the Mexican Era section of the exhibition in the context of the entire exhibition will help visitors understand that the Mexican Era section intends to depict Mexican Independence as a trigger.

Despite the relative success of the Mexican Era section, NHM may consider a few strategies to strengthen the messaging in this section. For instance, images of grasses or, if at all possible, depictions of the native and foreign plants introduced, may help visitors connect Mexicans' independence to environmental degradation. Additionally, the map was a crucial aspect of the exhibit that offers many possibilities. Visitors recognized the importance of the map, but struggled to interpret it fully. Therefore, NHM may consider how to distill the map to its most essential elements to convey the

messages they intend. For instance, they may work to more clearly identify what parts of the map are past and what parts are present or choose to depict the past solely.

RECOMMENDATIONS

- ♦ As the NHM intends, staff should incorporate more images or objects, such as those depicting indigenous grasses or cattle fields, to help further convey the idea of environmental impact.

- ♦ The sword is eye-catching, but it is also difficult to interpret. While NHM already has design conventions to help visitors understand that they are using touchdown objects as symbols of a trigger or change, NHM may also consider how to introduce the concept of touchdown objects in the introduction text of the exhibition. NHM may need to be explicit in this endeavor since symbols can be challenging to interpret.

- ♦ The orange color worked well as an attractor, and we encourage deliberate use of color throughout the exhibition to bring visitors' attention to important ideas. Consider how to use color in a consistent way throughout the exhibition to help visitors make meaning.

- ♦ While we do not necessarily recommend using traditional dating in this section, consider incorporating dates into some components like the map. Also, the intended addition of the dated wall will likely help provide visitors context for the section.

- ♦ As NHM intends, add additional material to help visitors understand branding, such as explanatory text or an activity that shows how brands are used.

MODEL TABLE

Findings from the model table prototype show that, overall, visitors are interested in the model itself as well as exploring the model through the stories in the program. Stories like City Hall and Little Tokyo resonated with visitors because they tell an important part of Los Angeles' history, and for some out-of-towners, these stories were new and surprising.

However, there were a few barriers to implementing the program. First, there were some navigational issues that can be easily corrected. That is, the touch-sensitivity of the test version of the program was relatively low, so visitors had trouble moving around the program. Additionally, the instructions for using the program were accessed by opening a dropdown menu on the touch screen, and thus, they were rarely used. Therefore, NHM may consider placing the instructions along the mounting of the touch screen or on the main screen of the touch screen (and the program should automatically refresh to this main screen when not used and/or include very clear forward/backward navigation to the main screen).

Second, while most visitors enjoyed the stories presented to them through the program, visitors sometimes found them to work well as stand-alone stories—not connected to the model. The greatest downfall of the program was that the stories did not always direct visitors' looking at the model. For instance, the story of City Hall most encouraged visitors to look at the model because the building is depicted in the model; also, mentioning that upon construction City Hall was the tallest building in Los Angeles, visitors were encouraged to look at the model. By contrast, when stories mentioned locations like LAX and the Japanese internment camps, visitors were prompted to wonder where they might find LAX and the Japanese internment camps on the model.

♦ Place the touch screen interface next to the model so that visitors are encouraged to look back and forth between the two.

♦ Increase the size of the touch screen so visitors in groups can use them together, similar to how visitors use the touch screens in the Age of Mammals and Dinosaur Hall.

♦ Position the instructions for using the program in a place that even less tech-savvy visitors might access. For instance, the main screen is ideal, but they also can be printed on the mounting of the touch screen.

♦ Be clear of the intentions and limitations of the model and program. For instance, clearly indicate that the model is historical and that it is the one remaining part of what was a larger model of Los Angeles. NHM may also note that the stories in the programs present many years of Los Angeles history, but there are no plans to create a new model.

♦ Information presented in the stories should have direct correlation to what people can see in the model. However, if there is information that the Museum feels is important to telling a cohesive story, the Museum may mention it and acknowledge that the landmark or location is not depicted in the model.

REFERENCES

Randi Korn & Associates, Inc. (2011). "Formative evaluation: *Los Angeles* exhibit." Unpublished manuscript. Los Angeles, CA. National History Museum of Los Angeles County.

INTRODUCTION

The Natural History Museum of Los Angeles County (NHM) contracted Randi Korn & Associates, Inc. (RK&A) to conduct a formative evaluation of two prototypes for the *Becoming Los Angeles* exhibition.[1] This study, which was preceded by a front-end and earlier formative evaluation conducted by RK&A, will be used by NHM to further refine the development of the exhibition.

Specifically, this study was designed to explore:

♦ How visitors use the model table and touch screen interface;

♦ Whether visitors make connections between the model table and the touch screen interface;

♦ Whether there are any barriers to visitors' use of the model table and touch screen interface;

♦ How visitors interpret the Mexican Era section;

♦ How visitors interpret the maps and graphics in the Mexican Era section;

♦ Whether there are any barriers to visitors' understanding of the mapping conventions and graphics.

METHODOLOGY

To examine visitors' responses to two prototypes, the Mexican Era section and model table, RK&A conducted open-ended interviews with English-speaking, walk-in visitors who are 18 years and older and their visit group.[2] All data were collected during the weekend of January 28-29, 2012.

Visitors were recruited from the main hall, close to what will be the entrance to the *Becoming Los Angeles* exhibition. Visitors were selected following a continuous random sampling method. In accordance with this method, the evaluator[3] approached the first eligible visitor to cross an imaginary line and asked the visitor to participate in the study. If the visitor agreed to participate, the evaluator asked him/her to come to a separate room to view one of the prototypes with his or her visit group (if they desired).[4] The participation rate was 71 percent.

The prototypes (Mexican Era section and model table) were evaluated separately, so recruited visitors were escorted to one prototype or the other. The evaluator provided an introduction to the prototype and asked participants to use it as much or as little as they liked. After the participants viewed the prototype, the evaluator asked a series of questions related to the prototype and took detailed notes on responses (see Appendices A and B for the interview guides). Children in the visitor group sometimes participated in the study, but often used the coloring activities provided by the Museum at a nearby table. When the interview was complete, the evaluator thanked the participants and reviewed her notes before beginning the next interview.

---

[1] The exhibition was formerly referred to as *Under the Sun* and the *Los Angeles* exhibition.
[2] One visitor group consisted of two 16-year-olds.
[3] In the majority of cases, the staff evaluator at NHM recruited visitors. The evaluator from RK&A recruited a few visitors.
[4] The prototypes were displayed in the space where *Becoming Los Angeles* eventually will be exhibited.

DATA ANALYSIS AND REPORTING METHOD

The data are qualitative, meaning that results are descriptive, following from the nature of interviews. In analyzing the data, the evaluator studies responses for meaningful patterns and, as patterns and trends emerge, groups similar responses. Trends and themes in the interview data are presented from most- to least-frequently occurring. Although these interviews were not audio recorded, the evaluator had included any verbatim responses reported to elucidate the findings.

SECTIONS OF THE REPORT:

1. Mexican Era Section
2. Model Table

MEXICAN ERA SECTION

INTRODUCTION

RK&A interviewed 20 groups of visitors[5] about the Mexican Era section prototype. As part of the protocol, the evaluator prompted participants to look at the introductory text to the *Becoming Los Angeles* exhibition as well as graphic depictions and a floorplan of the exhibition, which were displayed outside the area where the prototype was displayed. The evaluator then showed participants the Mexican Era section prototype and asked participants to look at and read as much or as little of the prototype as they liked, keeping in mind that the sword and steer would be replaced with real objects. The evaluator observed participants from nearby and conducted an interview once the participant was done.

FIGURE I

MEXICAN ERA SECTION

DEMOGRAPHICS OF PARTICIPANTS

More than one-half of participants had visited NHM before. Most were visiting NHM with at least one other adult, and three-quarters were visiting with children. More than one-half are female, and participants' median age is 34. Almost one-half are Hispanic/Latino, and about one-third are Caucasian.

---

[5] The 20 groups who participated consisted of 34 individuals.

NAVIGATION AND GENERAL USAGE

While observing participants using the program, the evaluator found that:

- ♦ Three-quarters of participants navigated the exhibit as intended—beginning at the saber, moving to the intro text on the orange background, then to the map, and finally the steer. Participants who did not follow this route were often in a larger group where some participants viewed the exhibit in the intended sequence and others did not.

- ♦ Most participants spent the greatest amount of time in front of the map.

RESPONSE TO THE EXHIBIT COMPONENTS

The evaluator asked participants to talk through how they had experienced the exhibit components. Findings are reported by exhibit component:

TOUCHDOWN OBJECT

- ♦ More than one-half said the saber was eye-catching. Some indicated the lighting of the object caught their attention ("I stopped at the saber because it was first and the lighting was good."; "I like the spotlight."). A few others indicated that the object itself was attractive ("Anything that has a weapon stands out."; "The fancy handle caught my attention.").

- ♦ When asked about what connections, if any, they saw between the saber and the rest of the exhibit, most participants had difficulty responding. More than one-half of participants did not demonstrate any understanding of the connection between the saber and the exhibit ("Not really. It went from Mexican Independence to trading cattle. I feel like I missed something because the connection from saber to trade was especially confusing."). More than one-third understood the connection between the saber and the rest of the exhibit. However, a few of these participants, while able to fully articulate the connection between the saber and the rest of the exhibit, questioned whether they fully understood the connection. Additionally, a few said the connection was vague ("It introduces the theme of Mexican Independence, but it is hard to draw connections. The saber represents conflict but everything shows the transition of trade and economy.").

SECTION INTRODUCTION (ON ORANGE BACKGROUND)

- ♦ One-third of participants said they read the section introduction because the orange background and large print attracted their attention ("The orange stood out so I read the text.").

- ♦ A few participants noticed that the words from the touchdown object case continued onto the orange background. A couple participants said this confused them ("It is confusing that it is the same text as with the saber"), while a couple others liked this characteristic ("I like that the text continues. You could also read the smaller text for more info.").

MAP OF RANCHOS WITH BRANDS

- ♦ All participants understand that the map shows where ranches used to be located in what is now Los Angeles, and many participants said they were surprised by how widespread the ranches were.

- ♦ Nearly one-half of participants thought the icons and freeways helped them orient themselves to the map and make connections between contemporary places they are familiar with and Mexican Era Los Angeles ("It helps put into perspective where we are."). However, almost one-third

said the icons added a layer of confusion because they introduced the present ("I think they are a distraction because they confuse the time period.").

♦ A few participants were initially confused by what a brand is because they are unfamiliar with or do not think about branding in their everyday life ("As a kid, I used to see the cattle branding on the *Tom and Jerry Show*. I thought it was just a cartoon. Didn't realize they really did that—naming the cattle."). A couple asked questions about why the brand logos seemed to be backwards.

♦ A few participants thought the map was bland. A couple suggested adding color ("The map didn't stand out. The colors are too subdued."), while another suggested making it interactive.

♦ A couple participants were confused by the names of the ranches. For instance, upon seeing Rancho San Francisco, one woman questioned what area the map depicted ("I was initially confused because I saw Rancho San Francisco. I thought it depicted the ranchos in this area."). Another participant, when describing his experience with the map, confused Rancho Palos Verdes (a modern-day location) with a ranch from the past.

♦ One participant thought the map was deceptive because he noticed that the footprints of ranches on the map are smaller than the ranch pop-outs indicate ("It is deceiving—looks like ranchos are larger than they are; the footprint in actual maps is small.").

CORRIENTE STEER

♦ When asked to comment on this part of the exhibit, about one-third of participants said they were interested to learn about the effect the cattle had on the indigenous plants in Los Angeles ("I liked the label and thought it was interesting that cattle changed the landscape.").

♦ A few participants said they skimmed this section because it did not seem like there was much information there or that the map seemed more important.

♦ A couple participants wondered whether the steer would be branded because they thought that would add an interesting touch.

♦ One participant wondered whether all the indigenous grasses had been decimated.

OTHER FEEDBACK

♦ Several participants said that the exhibit needed to include images—particularly any images that show what Los Angeles looked like in the Mexican Era ("The wall text seems really boring. It needs some sort of artifacts or photos to show what the area was like before and what it looks like today.").

♦ One-quarter of participants were interested in the dates depicted in the Mexican Era section. The majority of these participants thought that dates would help them interpret the map. Another participant wanted dates to help him understand how quickly the environmental changes happened, while another wanted dates to help her clarify whether the area was considered California or Mexico at the time.

♦ A few participants thought the exhibit needed to talk more about Mexican heritage. For instance, one participant wanted to know more about the Mexican War for Independence with Spain. Another participant said that the exhibit needed to describe how Mexicans were later removed from the area ("It's a little fluffy; it doesn't show what really happened. Mexicans were removed, killed off; that needs to be here.")

UNDERSTANDING OF EXHIBIT MESSAGES

Participants articulated various degrees of understanding:

- More than one-half of participants clearly articulated understanding of the environmental effect of cattle and ranchos on the landscape of Los Angeles ("The land was overgrazed and the steer changed the ecosystem."). By comparison, more than one-third understood that cattle and ranchos were widespread in the Mexican Era, but did not describe the environmental impact of cattle.

- More than one-third clearly articulated that Mexican Independence from Spain led to the proliferation of ranches with some mentioning that Mexicans were not allowed to trade freely while under Spain's rule ("There were a lot of cattle because Mexico was now able to trade."). About one-third acknowledged the importance of Mexican Independence, but talked about it in general terms, such as simply affording Mexicans more opportunity. A few did not talk about the role of Mexican Independence.

MODEL TABLE

INTRODUCTION

RK&A interviewed 20 groups of visitors[6] about the model table prototype (see Figure 1). As part of the protocol, the evaluator prompted participants to view a description of the model table, which included two images of the actual model. The evaluator explained that the model would occupy the space framed out before them and that the corner-piece provides an idea of the size and scale of the buildings in the actual model. Next, the evaluator prompted participants to use the program on the iPad as much or as little as they liked.[7] The evaluator observed participants from nearby and interviewed them when they were done with the experience. During the interview, the evaluator prompted participants to look at one of the stories if they had not already done so.[8]

FIGURE 2

MODEL TABLE
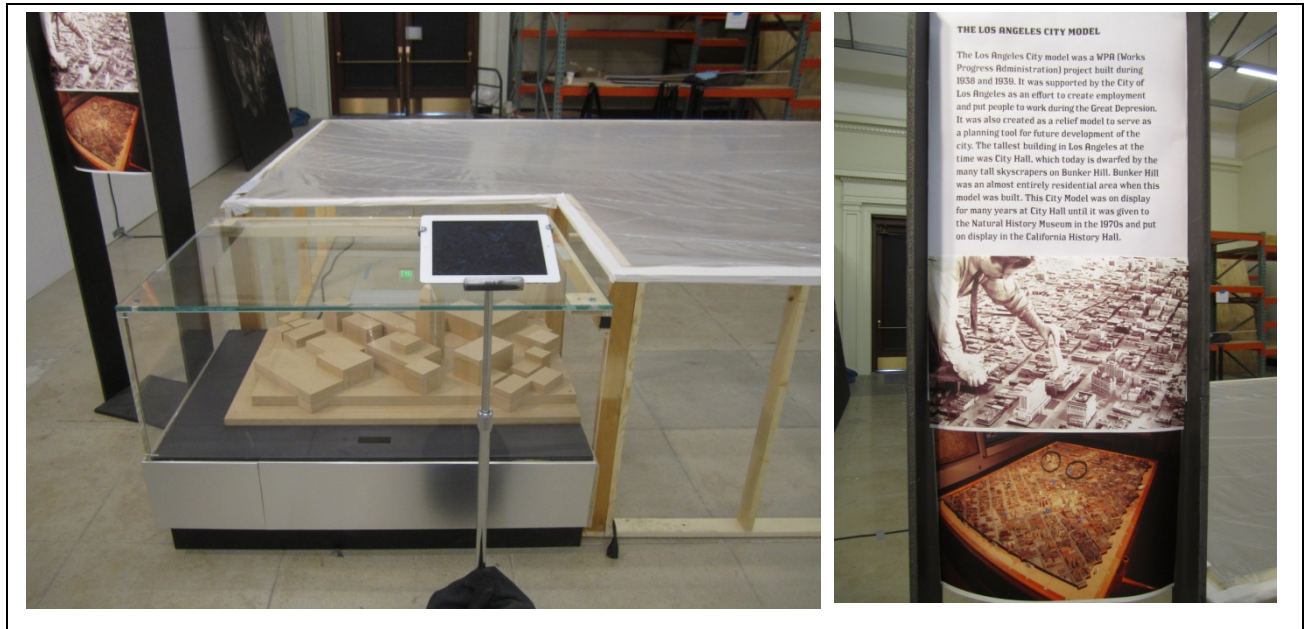
DEMOGRAPHICS OF PARTICIPANTS

More than one-half of participants had visited NHM before. About three-quarters were visiting NHM with at least one other adult, and two-thirds were visiting with children. Nearly two-thirds are female,

---

[6] The 20 groups of visitors who participated consisted of 29 individuals.

[7] Participants were encouraged to change the height of the iPad if they liked. The first participant moved the iPad to the height shown in Figure 1. No other participant adjusted the height.

[8] A couple participants only zoomed in and out and scrolled across the image of the model table. These participants were shown how to access the stories and prompted to listen to at least one.

and participants' median age is 28. More than one-half are Hispanic/Latino, and about one-quarter are Caucasian.

NAVIGATION AND GENERAL USAGE

While observing participants using the program, the evaluator found that:

♦ Most participants had some trouble navigating the program. In particular, participants had trouble zooming in and out because of the low sensitivity of the iPad.

♦ Furthermore, some participants seemed to have difficulty locating the markers when the program was zoomed-in to the close-up view of the model, as evidenced by their scrolling to the periphery of the model table and then scrolling along its perimeters.

♦ A few participants had to be prompted to select the markers to listen to one of the stories. Before being prompted to click on the markers, these participants zoomed in and scrolled around the close-up view of the model.

♦ A few participants clicked on and read the introduction on the program (black menu on top, left corner of screen). However, some of these participants clicked on and read the introduction *after* having listened to one or more of the stories.

When the evaluator asked participants to comment on his or her experience using the program:

♦ All participants thought that placing the touch screen right next to the model is ideal because it allows participants to look back and forth between the two ("[The touch screen is next to the model] for reference. It is easier to see the buildings, look at the model."; "[The touch screen] is close to model to make clear connection between the two.").

♦ All participants liked the images on the program. Images related to Toyo Miyatake were particularly memorable ("I liked the black and white photos—the little boys behind barbed wire."). While participants did not explain why these images were memorable, the evaluator assumes it was the direct correlation between the story and the images (i.e., story about photographs) as well as the visceral imagery of internment.

♦ Almost everyone liked the length of the audio because it is brief and to the point ("It wasn't short, wasn't long. It didn't bore you. [It] was right to the point.").

♦ Three-quarters said the device was too small with some suggesting a touch screen large enough for multiple participants to use together ("Too small. Should be the size in dinosaur exhibit to allow for multiple users.").

♦ Three-quarters said the audio was too soft or that it would be too soft when placed in the Museum ("If it will be noisy like out in the other exhibits, the audio is too quiet.").

♦ Some participants said that the touch sensitivity was low, describing difficulty playing the stories ("It's not that responsive. The videos don't play right away when you tap the arrows") and locating the markers when zoomed-in ("I had a little trouble finding the videos on the map"). While the majority simply suggested improving the sensitivity in general, one participant suggested a home screen or button that allowed visitors to return to the original view (zoomed-out view) of the model.

♦ Some participants wanted to further orient themselves to the model. For instance, one participant suggested that the model and the image of the model on the program contain gridding (like the conservator's gridlines shown in the picture of the model on the text panel), so visitors can make connections between what they see in the program and on the model

("Gridded out like in the picture would be useful. It would be useful to have those on the iPad too so you can identify where you are.").

RESPONSE TO THE STORIES

When the evaluator explicitly asked participants about the stories:

♦ Almost three-quarters said they listened to all four stories available. A few participants said they did not realize that there were two different stories per location so they only listened to one per location ("There were two things with dates [at each location], but we weren't sure if they were the same or different. We just clicked on one."). Additionally, a couple listened to stories related to just one location because they had trouble navigating to the second marker.

♦ When asked what stories they found most interesting, about two-thirds found the Little Tokyo stories most interesting, while about one-third of participants said that the City Hall story was most interesting (details presented below).

♦ A few participants were confused by the various time periods and stories presented along with the model ("It doesn't flow well. The stories are all over the place in terms of history and time period.").

LITTLE TOKYO

As noted above, about two-thirds of participants said that the Little Tokyo stories were most interesting to them. Of these participants:

♦ The majority were interested in the Little Tokyo stories because they were unfamiliar. For instance, some participants were not familiar with Toyo Miyatake and his studio ("I didn't know the camera story."). A few participants were not familiar with Japanese internment in general, so these participants were interested to learn about the photographs of internment and how the African American population moved into the area as a result of internment. Furthermore, a couple were interested in the Toyo Miyatake story because the photos taken are "rare" and "illegal."

♦ A few other participants were most interested in the Little Tokyo stories because they felt personal connections to these stories. For instance, one participant said that his grandparents were interned, while another participant teaches in Little Tokyo and became emotional thinking about the history of what took place in her own backyard ("The history of Little Tokyo is an emotional subject. Relocation camps. I work in this neighborhood so it makes the experience immediate.").

As participants spoke about the Little Tokyo stories, some miscellaneous findings emerged:

♦ Most participants spoke reverentially about the Little Tokyo stories and the Japanese internment. For instance, in the words of one participant, "It was a sad part of Japanese American history." Another participant became visually emotional while talking about Japanese internment.

♦ A few participants said the stories prompted curiosity. One participant wanted to know where the Japanese internment camps were (seemingly misunderstanding that the internment camps were not in the area portrayed by the model). Another participant was interested to know in what areas of Little Tokyo African Americans had settled.

As noted above, about one-third of participants said that the City Hall stories were most interesting to them. Of these participants:

- ♦ Most liked learning about people, places, or events that are historically significant to Los Angeles. For instance, the majority of these participants liked hearing about Mayor Tom Bradley because they had heard of his notoriety or were interested to hear about his influence and work, like building LAX and bringing the Olympics to Los Angeles in 1984 ("History of Mayor Bradley [was most interesting]. My mom used to talk about how important Mayor Bradley was.").

- ♦ A couple participants liked La Gran Marcha story because it was contemporary and relevant.

As participants spoke about the City Hall stories, some miscellaneous findings emerged:

- ♦ A couple responded strongly to the story about the La Gran Marcha. One contended that the story was political and not necessarily historical ("This [story of the La Gran Marcha] is politics—illegal agenda. It should show history of Civil Rights; there should be stuff on Watts Riots."). Another did not seem to agree with the March ("Protesting was from my lifetime—people leaving school to march on the freeway for reasons they don't understand.").

- ♦ A couple confused the story of the La Gran Marcha with the Occupy Movement ("Occupy recently happened, so that story was good.").

- ♦ A couple participants wanted to know about whether items in the Tom Bradley story were depicted on the model. For instance, one participant wanted to know whether the Governor's Mansion was depicted on the model since there was a photo of Bradley there. Another participant wanted to see LAX on the model (potentially misunderstanding the age of the model).

RESPONSE TO THE OVERALL EXHIBIT

When the evaluator asked participants to talk about the overall exhibit:

- ♦ Most participants thought the purpose of the model and program was to tell visitors about the history and heritage of Los Angeles. While some did not expand, about one-quarter thought the purpose was to teach visitors about certain locations and buildings in Los Angeles, with a few saying that it encouraged them to look at Los Angeles in a new way or learn more about the city ("[The purpose is to] learn more about our city; we drive by these places but don't know about them.").

- ♦ When asked if there were any parts of the stories that made them want to look at the model, one-half of participants said there were not, often saying that the stories did not connect directly to a building or landmark on the model ("Little Tokyo videos didn't prompt me to look at the model because it didn't have anything to do with the buildings."). About one-quarter said that the City Hall story made them want to look at the map, mostly because the program says that City Hall was the tallest building in Los Angeles when built. Almost one-quarter said the Little Tokyo stories made them want to look at the model often because they were familiar with the area and wanted to see what it looked like then.

   Most participants responded positively to the idea of using the program to bring the story to life, and some participants said they would be interested in looking at the model even without the stories ("There is something cool about models. Things in miniature are cool."). For the most

part, participants thought the stories were a good way to bring the model to life. However, some participants thought that the best way to bring the model to do so is to show how Los Angeles has changed over time. A few other participants had misguided ideas about how to bring the model to life, such as by adding holiday decorations or people to the model, or creating a new model that depicts Los Angeles' major landmarks ("It should cover the major landmarks of Los Angeles like Griffith Park and LAX.").

APPENDICES

APPENDIX A: MEXICAN ERA INTERVIEW GUIDE

APPENDIX B: MODEL TABLE INTERVIEW GUIDES

REMOVED FOR PROPRIETARY PURPOSES