



Impact Planning, Evaluation & Audience Research

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# Front-end Evaluation: *Safari Adventure*

*Prepared for the*  
**Wildlife Conservation Society**  
**Bronx, NY**

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# EXECUTIVE SUMMARY

This report presents and analyzes the findings from a front-end evaluation conducted by Randi Korn & Associates (RK&A), of *Safari Adventure*, an exhibition being developed for the Bronx Zoo by the Wildlife Conservation Society (WCS) in Bronx, NY. The study was undertaken to explore visitors' understanding of key messages and interest in potential exhibit components. Data were collected through 58 in-depth interviews with family groups to the Bronx Zoo between September and October, 2012.

**Only selected highlights of the study are included in this summary. Please consult the body of the report for a detailed account of the findings.**

## OVERALL PERCEPTION OF THE EXHIBITION

- ◆ Nearly all family groups indicated that their favorite activities were those that provided immersive and interactive experiences with animals, such as the camel safari, petting zoo, and animal feeding activities.
- ◆ Secondary interests varied by the age of the child. Children from 3 to 6 years old were interested in physically active options; while children from 7 to 10 years old were interested in activities they perceived as novel.
- ◆ Interviewees were least interested in areas they perceived as not being age appropriate such as WCS success stories for younger children and the toddler play area for older children.

## RESPONSE TO THE VILLAGE AREA

- ◆ Children from both age groups most frequently said they would prefer using the musical instruments activity over storytelling and WCS success stories options.
- ◆ Children's interest in storytelling and WCS success stories varied by age, with younger children more interested in storytelling and older children more interested in WCS success stories.
- ◆ Several interviewees said they were unlikely to use any of the three components because their primary goal for visiting the zoo was to see the animals or because their child was unlikely to sit still for the activity.

## RESPONSE TO FAMILY EXPERIENCES

- ◆ Interviewees' perceptions as to what constituted a family experience varied greatly.
  - ❖ About one-half of interviewees discussed activities that were interactive, hands-on where the whole family could participate either together or taking turns, such as the camel safari, petting zoo, animal feeding areas, zip line, and frog jump.
  - ❖ About one-quarter of interviewees discussed sedentary activities in which the whole family could participate, such as looking at animals, riding the monorail, watching a film, and riding the bug carousel.

- ❖ Several interviewees discussed proposed components such as the Village area or other places such as theme parks, where a wide range of activities could support the multi-generational interests of an entire family within an enclosed, safe central location.
- ❖ Several other interviewees described interactive, hands-on activities for the whole family such as the Village area, petting zoo, prairie dog activity, butterfly garden, and mouse house.

## RESPONSE TO CHILDREN'S ZOO LABEL

- ◆ Nearly one-half of interviewees stated that they would use the example label from the Children's Zoo, whereas one-quarter would not use the label, and one-quarter were uncertain whether they would use it.

## RESPONSE TO EXHIBITION MESSAGES

Interviewees were shown three key exhibition messages and asked a series of questions to assess which concepts they found most personally meaningful and how clearly the themes were represented in the proposed exhibition materials. Exhibition messages include<sup>1</sup>:

- ❖ It is important to connect people with wild nature.
- ❖ Humans live with and take care of wildlife.
- ❖ Animals live some of the same ways you do.
- ◆ Among the three messages, "It is important to connect people with wild nature" was selected most often as being personally meaningful and best conveyed in the exhibition materials.
- ◆ Many interviewees suggested that all three themes were present in the proposed exhibition materials.

## RESPONSE TO AREAS FOR IMPROVEMENT AND SUPPLEMENTARY MATERIALS

### IMPROVEMENT

- ◆ About one-half of interviewees commented that the Bronx Zoo could facilitate more immersive and interactive experiences with animals.
- ◆ About one-third of interviewees suggested offering more interactive, hands-on options that do not directly involve animals, such as arts and crafts, games, and play area facilities.
- ◆ Several interviewees said the Bronx Zoo should have more educational components, specifically to engage and provide learning opportunities for older children.
- ◆ A few interviewees suggested the Bronx Zoo become more physically and financially accessible by increasing the number of monorail stops, providing motorized wheelchairs, and reducing the cost of admission.
- ◆ A few interviewees also reminisced about and recommended bringing back the skyfari ride.

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<sup>1</sup> These three messages are adapted from learning goals as described in the original proposal WCS submitted to IMLS in addition to information gathered from a meeting with WCS and other exhibition materials.

## SUPPLEMENTARY MATERIALS

- ◆ About one-half of interviewees selected the mobile app as their first choice among supplementary materials.
  - ❖ Several talked about using apps at similar venues such as Sea World.
  - ❖ A few said they had looked for a Bronx Zoo app before visiting that day.
- ◆ About one-third of interviewees selected the field guide as their first choice among supplementary materials, with several envisioning it as a journal, informational guide about animals, or as a passport to collect stamps from various areas of the zoo. In contrast, several interviewees said the field guide would be an extra handout to carry around and incorporating it into the app instead.
- ◆ Approximately one-fifth of interviewees selected adding more pre-visit information to the website as their first choice among the three components; whereas, a few suggested the website was useful in its present state and did not need updating.

# DISCUSSION AND RECOMMENDATIONS

## INTRODUCTION

The front-end evaluation for *Safari Adventure* reveals many findings pertinent to the motivations and interests of family groups that may further guide the development of the proposed exhibition. The following discussion is organized around the objectives of the study and includes recommendations.

## DISCUSSION OF FINDINGS BY OBJECTIVE

### OBJECTIVE 1: IDENTIFY ASPECTS OF THE PROPOSED EXHIBITION THAT MOST AND LEAST INTEREST VISITORS AND WHY

Findings from the front-end study of *Safari Adventure* demonstrate that visitors have a sustained interest in immersive, interactive experiences with animal wildlife. When reviewing proposed exhibition materials, interviewees were guided by this core belief as they selected the most and least interesting exhibit components. In fact, all of the top-three mentioned aspects of the proposed exhibition involve a direct animal experience—the camel safari, petting zoo and animal feeding activities. Zoo visitors usually have a primary interest in animal experiences, specifically at children’s zoos. In a study conducted at the Philadelphia Children’s Zoo, children ages 6 to 12 years old reported that specific animals and animal interactions were their favorite aspects of a zoo experience (RK&A, 2010). Similarly, in 2003, a study conducted by WCS also found that visitors’ top three preferred exhibits enabled close-up views of animals and animal feeding demonstrations (WCS, 2011).

Although a camel ride, petting zoo, and animal feeding activities exist in the zoo currently, interviewees were also attracted to how the activities had been re-imagined for *Safari Adventure*. For example, interviewees were excited by the idea of feeding wild animals such as a rhinoceros, instead of the domestic animals in the petting zoo. Interviewees also viewed the camel safari’s immersive setting and opportunity for animal viewings as an improvement to the current fenced-in enclosure. A simulated environment can transform a typical camel ride to a real safari adventure. This sort of environmental recreation that emerges from an immersive setting was strongly effective in the Bronx Zoo’s *Madagascar!* Exhibition and a summative evaluation of the exhibition demonstrated that when visitors had close-up experiences with animals their appreciation for wildlife was heightened (RK&A, 2009).

Visitors also expressed interest in hands-on activities that support but may not directly facilitate an interactive animal experience. In this vein, interviewees showed greater interest in the musical instruments component of the Village area than in the less interactive storytelling or WCS success stories components. If more engaging elements were incorporated into these components, such as role playing for storytelling and hands-on activities for WCS success stories, these components may be of more interest to visitors. Similarly, visitors showed interest in the proposed exhibition field guide more so when they envisioned it as a journal or passport to engage their children. Visitors also showed interest in the proposed mobile app, viewing this software as a way of making the most of their experience by helping them navigate the zoo area and alert them to daily activities. These visitors look to exhibit components and supplementary materials as a means to support active and participatory experiences with animals at the zoo. Such findings reinforce the significance of providing hands-on and immersive animal experiences for children and adult visitors to zoos today.

**OBJECTIVE 2: IDENTIFY THE PROPOSED MESSAGES AND EXHIBIT STRATEGIES THAT BEST HELP FAMILY GROUPS: UNDERSTAND, APPRECIATE AND CONNECT WITH KEY EXHIBITION THEMES.**

Interviewees were shown three key exhibition messages and asked a series of questions to assess which concepts they found most personally meaningful and how clearly the themes were represented in the proposed exhibition materials. Exhibition messages include<sup>2</sup>:

- ◆ It is important to connect people with wild nature.
- ◆ Humans live with and take care of wildlife.
- ◆ Animals live some of the same ways you do.

Among the three proposed exhibition messages, interviewees felt the most resonance with the statement that, “It is important to connect people with wild nature.” This finding is notable because the message is described as one of WCS’s core mission elements; *Safari Adventure* is seen as an opportunity to fully integrate this message with the guest experience, and findings suggest the exhibition is on track to do so (WCS, 2011). The majority of interviewees found this statement to be the most personally meaningful and best conveyed in the proposed exhibition materials. Interviewees often said that immersive, interactive animal experiences as described in *Safari Adventure* were the best means for connecting with wild nature. A few also stated that the message was important to them because, they live in a city, and people do not have an opportunity to connect with wildlife other than through a zoo experience.

When reflecting on exhibition messages, it became clear that interviewees interpreted slightly different meanings among the three statements. Interestingly, their interpretations can be analyzed using the values of nature framework of social ecologist Stephen Kellert, whose work addresses behavioral interactions with nature and is referenced as relevant literature in WCS’s interpretive plan from June 6, 2011. Kellert establishes nine values individuals may identify with when engaging with nature, three of which are applicable to how interviewees interpreted WCS’s exhibition messages: naturalistic, humanistic, and moralistic (Kellert, 2002). For example, interviewees talked about the message, “It is important to connect people with wild nature,” in a way that aligns with naturalistic values, as it implies interactive, close-up experiences that provide opportunities for exploration and discovery. The exhibition message, “Animals live some of the same ways you do,” can be associated with humanistic values, as it caused interviewees to build emotional ties with animals and think about animal behaviors in comparison with their own. Moralistic values most align with the message “Humans live with and take care of wildlife,” as interviewees considered ethical responsibilities for nature and human obligation to care for animals. Applying Kellert’s framework to the exhibition messages enables WCS to see what values interviewees most identify with and were made aware of through the exhibition. It also provides WCS with an opportunity to assess how to strengthen key messages and the types of interactions that best communicate important values.

**OBJECTIVE 3: EXPLORE VISITORS’ EXPERIENCES WITH AND ASSUMPTIONS ABOUT INTER-GENERATIONAL LEARNING WITHIN THE CONTEXT OF THE ZOO AND PROPOSED NEW EXHIBITION.**

The proposed exhibition promises to provide visitors with opportunities for a variety of family experiences based on type of activity, group composition, and level of social interaction. Findings from this study indicate that there is not a one-size-fits-all solution when creating family-oriented activities. For example, not all interviewees were receptive to the label in the current Children’s Zoo. Rather, whether interviewees would stop and engage with their child using the inquiry-based label was determined by personal preference and parenting style. Interviewees’ views on family experiences were

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<sup>2</sup> These three messages are adapted from learning goals as described in the original proposal WCS submitted to IMLS in addition to information gathered from a meeting with WCS and other exhibition materials.

equally personalized. When asked to recall particularly significant family activities from past visits to the zoo or similar institutions, interviewees described quite a range of experiences, emphasizing that variety is important. Based on descriptions of family experiences, four distinct categories emerged and are listed below. All are important to consider in the further development of *Safari Adventure*:

- ◆ All family members participate in interactive, hands-on activities, like feeding animals;
- ◆ All family members participate and reflect on interactive, hands-on activities, like the camel safari described in Safari Adventure;
- ◆ Family members share the same physical space but each attends to different activities, like the Village area described in Safari Adventure;
- ◆ All family members partake in engaging yet sedentary activities, like a monorail ride.

These findings shed light on what aspects of the proposed exhibition best meet the diverse needs of family visitors. For example, many interviewees strongly associate family experiences with interactive opportunities, and described an ideal family experience as one in which all family members engage in an “interactive, hands-on activity.” The description of *Safari Adventure* provides several examples of activities that would meet the needs of these families, like the petting zoo, animal feeding areas, and camel safari. Such exhibit components could also support those interested in having all members participate in interactive, hands-on activities. Families are also interested in experiences that enable everyone to be in the same general vicinity while attending to different activities. The Village area of *Safari Adventure*, a safe enclosed area with a variety of exhibit components, appealed to these families. The smaller portion of families interested in more sedentary experiences, though, were not as directly supported by the proposed exhibition. To better accommodate these families, *Safari Adventure* might need to incorporate animal shows and other opportunities for families to sit and watch a performance (like the proposed storytelling).

#### **OBJECTIVE 4: IDENTIFY ANY CONNECTIONS CHILDREN AND FAMILIES SEE BETWEEN SAFARI ADVENTURE AND THEIR OWN PERSONAL EXPERIENCES WITH WILDLIFE AND NATURE.**

Interestingly, findings suggest that, rather than seeing connections between zoo exhibitions and personal experiences with wildlife and nature, visitors view their interactions at the zoo as their *primary* personal experiences with wild animals and nature. This viewpoint is consistent with social ecology research that suggests children’s experiences with nature are diminishing, outside of organized experiences such as those at zoos, aquariums, and nature centers, among others (Kellert, 2002; Louv, 2008). This is particularly true for city dwelling adults who may feel their children do not have an opportunity to connect with wildlife outside of a zoo experience. In fact, when discussing personal experiences with animals, more interviewees mentioned experiences with wild animals in institution-based settings than with animals in domestic settings. Given this finding, WCS may see its role as providing the crucial architecture and framework for creating first connections between children and animals through interactive and immersive wildlife experiences.

#### **OBJECTIVE 5: GAUGE POTENTIAL DIFFERENCES BETWEEN CHILDREN AGES THREE TO SIX AND CHILDREN AGES SEVEN TO TEN IN REGARD TO THEIR REACTIONS TO THE PROPOSED EXHIBIT.**

Family groups with children ages 3 to 6 years old as well as those with children ages 7 to 10 years old responded to the proposed exhibition materials similarly with one distinct exception. While close-up animal opportunities were of primary interest to children of all ages, the secondary interest varied based on the child’s age. Children from 3 to 6 years old were more interested in exhibition components that promoted physical activity; whereas children from 7 to 10 years old were more interested in experiences they perceived as novel. While these preferences are likely due to differences in children’s developmental stages, they highlight that not all exhibition components will be of interest to all children.



For example, younger children were noticeably more interested than older ones in role playing activities such as exploring animal homes and pretending to be an animal; these activities were the core conveyors of the message “Animals live some of the same ways you do.” As such, young children had a better understanding of this key exhibition message, whereas older children were much less receptive to the message. To ensure that exhibition messages reach all children, WCS can strategically reinforce these themes by presenting them in activities for both age groups.

## RECOMMENDATIONS

- ◆ Visitors show a deep and primary interest in immersive, close-up experiences with animals and wildlife. In the design of *Safari Adventure*, WCS should continue efforts to simulate authentic environments and create unique opportunities for visitors to have direct interactions with zoo animals.
- ◆ Visitors showed less interest in storytelling and WCS success stories, likely because the components are less interactive than others in the Village area. If possible, incorporate more interactive elements into these exhibit components so they will appeal to a wider range of family visitors.
- ◆ Visitors feel the least resonance with the statements: “Humans live with and take care of wildlife” and “Animals live some of the same ways you do.” If these messages are still important to WCS, consider strategically developing participatory activities to reflect them.
- ◆ Based on Kellert’s values of nature framework, the majority of visitors associate naturalistic values that promote exploration and discovery with their zoo experiences. In contrast, visitors connect with humanistic and moralistic values less often. To encourage more emotional bonding with and sense of ethical responsibility towards wildlife, WCS may want to incorporate diverse exhibit components and activities that emphasize these values.
- ◆ Visitors showed a strong interest in the camel safari and mentioned the activity most often. To ensure that families have interactive, hands-on experiences together at the camel safari, WCS might need to reconsider the activity’s design. Would it be feasible to have several camels so family members could experience the safari together?
- ◆ The proposed exhibition caters to families interested in interactive, hands-on opportunities. However, to better facilitate family experiences for those more interested in sedentary activities, WCS may want explore adding animal feeding demonstrations and performances.
- ◆ As people’s experiences with nature diminish, WCS may feel a greater responsibility to provide visitors with their primary nature experience. As such, WCS may wish to create an immersive, authentic-feeling exhibition environment like it did in *Madagascar!* and facilitate experiences between visitors and animals.
- ◆ To stimulate and facilitate more social interaction within families, WCS should continue using inquiry-based labels. WCS may also want to explore creating more visible and interactive labels, possibly by replicating the design of labels currently in the butterfly garden.
- ◆ Visitors express interest in using a Bronx Zoo mobile app to support their learning and navigation of the zoo. WCS could continue exploring and developing an app design.

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# INTRODUCTION

This report presents the findings from a study conducted by Randi Korn & Associates, Inc. (RK&A) for the Wildlife Conservation Society (WCS) Bronx Zoo in the Bronx, New York. RK&A conducted a front-end exhibition evaluation of *Safari Adventure*, an exhibition currently under development designed primarily for families. The study was undertaken to explore visitors' understanding of key messages and interest in potential exhibit components.

Specifically, the evaluation objectives were to:

- ◆ Identify aspects of the proposed exhibit that most and least interest visitors and why;
- ◆ Identify the proposed messages and exhibit strategies that best help family groups to understand:
  - ❖ It is important to connect people with wild nature,
  - ❖ Humans live with and take care of wildlife,
  - ❖ Animals live some of the same ways you do;
- ◆ Explore visitors' experiences with and assumptions about inter-generational learning within the context of the Zoo and the proposed new exhibit;
- ◆ Identify connections children and families see between *Safari Adventure* and their own personal experiences with wildlife and nature;
- ◆ Gauge potential differences between children ages 3 to 6 years old and children ages 7 to 10 years old in regard to their reactions to the proposed exhibit.

## METHODOLOGY

### IN-DEPTH INTERVIEWS

RK&A conducted audio-recorded in-depth interviews with adult-child pairs or small family groups. In-depth interviews encourage and motivate interviewees to describe their experiences, express their opinions and feelings, and share with the interviewer the meaning they construct about ideas, concepts, and experiences. Hence, they are useful for understanding ideas and concepts from the visitors' point of view and produce data rich in information.

RK&A designed a front-end interview strategy that used an interview guide and booklet of materials related to the exhibition (see Appendix A for interview guide and Appendix B for booklet). First, interviewees were asked to review text and images representing three areas of the exhibition (the Village, Walking Safari, and Kopji Play area) and respond to questions about their interest in related activities. Second, interviewees were asked to detail experiences they shared as a family and to read a label from the existing Children's Zoo to critique its content and design as it relates to promoting adult-child interaction. Third, interviewees were presented with three key messages of the exhibition and asked to review how these messages related to them personally and to the materials they had perused. Lastly, interviewees were asked rating-based and open-ended questions about ways to improve their family experience at the zoo.

English-speaking family groups with at least one adult visitor (18 years or older) and at least one child from 3 to 10 years old were eligible to be interviewed. Visitors were selected following a continuous

random sampling method. In accordance with this method, the data collector approached the first eligible visitor group to cross an imaginary line and asked one adult visitor and one child visitor to participate in the study. Once the interview was completed, the interviewer returned to the designated area and intercepted the next eligible visitor.

To gauge potential differences between children of different age groups regarding their reactions to the proposed exhibit, data collectors purposely collected data in two age categories: families with children from 3 to 6 years old and families with children from 7 to 10 years old (occasionally, families fit into both categories). Overall, data collectors conducted in-depth interviews with 58 family groups to the Bronx Zoo between September and October, 2012. Nearly all interviews were audio-recorded and transcribed to facilitate analysis.<sup>3</sup>

## DATA ANALYSIS

Interviews are qualitative, meaning that the results are descriptive. In analyzing qualitative data, the evaluator studies the responses for meaningful patterns, and, as patterns and trends emerge, groups similar responses. These groupings are reported and quotations are included to exemplify visitors' experiences and ideas.

## REPORTING METHOD

Following the qualitative tradition of data reporting, trends and themes within the interview data are presented from most to least frequently occurring. Verbatim quotations from interviews (edited for clarity) in this report illustrate visitors' thoughts and ideas as fully as possible. The quotations give the reader the flavor of visitors' experiences. Within quotations, the interviewer's questions appear in parentheses and remarks by adult and child interviewees are noted with an "A\*" and "C\*" respectively. A double asterisk (A\*\* or C\*\*) denotes the introduction of a second speaker.

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<sup>3</sup> Two interviews were not recorded, one due to audio-recorder malfunction and one due to interviewees' preference. In both cases, the interviewer took hand-written notes.

# PRINCIPAL FINDINGS

## INTRODUCTION

RK&A conducted interviews with 58 family groups comprised of 70 adults and 70 children. Interviews were conducted at the Bronx Zoo during the weekend throughout September and early October, 2012.

## DEMOGRAPHICS OF PARTICIPANTS<sup>4</sup>

- ◆ Almost two-thirds of adult visitors are female;
- ◆ Almost one-half of child visitors are female;
- ◆ The median age for adults is 40;
- ◆ The median age for children is 6;
- ◆ Approximately three-quarters of interviewees identify as Caucasian/White;
- ◆ Most interviewees were repeat visitors (had visited the Bronx Zoo at least once before);
- ◆ About three-quarters of interviewees are members of WCS.

## RESPONSES TO THE EXHIBITION OVERVIEW

In the first part of the interview, participants were asked to review with their child/children a booklet of materials with text and image descriptions of three proposed exhibition areas (see Appendix A).

## MOST INTERESTING ASPECTS

When asked what they liked most about the proposed exhibition, interviewees were most interested in activities that promoted direct interaction with animals (see the quotation below). Interviewees selected multiple favorite aspects of the exhibition and the top-three aspects included the camel safari, petting zoo and the animal feeding activities. Nearly two-thirds of interviewees selected the camel safari; whereas about one-half selected the petting zoo, and about one-half selected the animal feeding activities.

A\* The [children] like the interaction with the animals. That's what they like the most . . . We rode on the camel. They enjoyed that. That was the first thing they wanted to do when they got here. They like the hands-on. They like touching. They like feeding and what not. [male, 43; female, 6; female, 5]

Interviewees' responses varied slightly based on the age of the child. Among interviewees with children ages 3 to 6 years old, top responses were split between the interactive animal activities described above and more physically active options such as the spider web, play area, and Patas monkeys activity (see the first quotation below). Children ages 7 to 10 years old named physically active options as interesting less often. Instead, older children were primarily interested in interactive animal activities as well as activities they perceived as novel (see the second and third quotations).

A\* So, [the Kopji play area] is all good because it just gets their energy out. We've gone through a couple of the play areas here and they enjoy that. [female, 38; male, 6]

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<sup>4</sup> See Appendix C for demographic tables.

A\* I really like the one with the zip line, and really [like] interacting where the animals interact. I think that's something very hands-on. You're going to have a really cool memory of that and take something away from it. So, I think that's pretty neat. [female, 36; male, 4]

(Can you tell me what you thought was the most interesting?) C\* Yes. (What was it?) C\* Feeding the rhino. (Feeding the rhinos! Why is that so interesting to you?) C\* Because I never fed a rhino. I never saw a rhino, and I like rhinos. [female, 57; male, 8]

### LEAST INTERESTING OR OVERLOOKED ASPECTS

When asked what they did not like about the proposed exhibition, interviewees named activities they perceived as not age appropriate, or activities they believed to be boring, embarrassing, or potentially frightening (see quotations below). Several interviewees from both age groups indicated areas of the exhibition that might be inappropriate for certain ages of children. Family groups with children ages 3 to 6 years old thought that storytelling may be geared for younger children, while WCS success stories would be more appropriate for older children and adults. Similarly, family groups with children ages 7 to 10 years old suggested that the toddler play area would not be age appropriate. A few children from both age groups also expressed a fear of being bitten by animals, the height of the zip line or falling off climbing activities.

A\* I think the [activities are] all relative to age. So for me, the toddler play area is irrelevant because [my children who are 10 and 7] wouldn't be interested in that. The petting zoo, because they like the animals so much, they think that's appealing. But then there's the question of safety, how safe is it to have a petting zoo? [female, 38; female, 10; male, 7]

(Anything you think you wouldn't want to do if you were here?) C\* That. [child points to image of frog jump] (Jumping like a frog?) C\* Yeah, cause it's so embarrassing doing that. [male, age unknown; female, age unknown; female, 8]

### OPINIONS ABOUT VILLAGE ACTIVITIES

To better understand how visitors might perceive and potentially use specific components of the Village Area, interviewees were asked to review their interest in the musical instruments, storytelling, and WCS success stories areas. Interviewees' responses varied greatly based on the age of the child interviewed.

#### MUSICAL INSTRUMENTS

Children from both age groups most frequently said they would prefer using the musical instruments activity. Among family groups with children ages 3 to 6 years old, nearly two-thirds showed an interest in playing musical instruments. Similarly, the activity was of interest to one-half of children ages 7 to 10 years old. Many interviewees who indicated interest in the activity thought it would be a fun and interactive addition to their zoo experience (see the first quotation below). However, a couple interviewees voiced some concerns about sanitary safety (see the second quotation).

(What do you think would be interesting about the musical instruments?) A\* Just to experience what [instruments] the culture chose to play. You know, [some cultures] make musical instruments out of different gourds and whatever. You think [the gourds are] just something to eat, but let it dry and you can play music with it. Excellent! [male, 56; female, 8]

A\* They love music. C\*: That'd be really cool. A\* That's something that I know they'd be interested in. We [as adults] also enjoy music. I don't know that we would participate in the instruments, but we would do it for [the children's] sake. A\*\* The problem with a horn

instrument is you've got eight million people all blowing on one horn. So, as soon as I read that, I was like, 'How was that really going to work?' Piano's fine. Drums are fine. But I know, like even thinking about my wife, knowing her germ phobia. (So there are some health concerns?) A\* Yeah. A\*\* Only that one. [male, 39; female, 38; female, 10; male, 7]

### **STORYTELLING**

Children in the younger age group named storytelling second most frequently as a preference (about one-half of them named it), while older children selected it least often (about one-quarter). Some interviewees said likely it would be challenging for their child to sit still for storytelling, but others said it would be an enjoyable learning experience (see the first and second quotations below). A few interviewees said if the storytelling included an interactive element like role playing, that it might be more likely to engage children (see the third quotation).

(What about the storytelling?) A\* I think it would be fun, but I think it would be pretty hard. (Okay, why is that?) A\* Just because, how could you get all of those kids in one place, I think that would be difficult. I think it's hard enough even when you see it in school, when you have a teacher who has control over thirty kids. As opposed to a place here where you're going to have very limited control over them. [male, 43; female, 6; female, 5]

(Which do ones do you think you would be most likely to do?) A\* Probably storytelling. (And why the storytelling?) A\* Just because I think they learn something at the same time and they find that interesting. They like to listen to stories. [female, 60; male, 3]

(Can you tell me, would you guys be interested in going to a storytelling?) C\* Whoa! A\* You would, huh? C\*\* I don't really like stories. A\*\* But if it was interactive... (If it was interactive, would they like it?) A\*\* Yeah. C\*\*Yeah. You could do storytelling and then you could do a little thing like acting out the story. [male, 48; female, 43; male, 9; male, 7; male, 2]

### **WCS SUCCESS STORIES**

More older children than younger children said they would like WCS success stories, with one-fifth of children ages 3 to 6 years old finding the activity of interest versus about one-half of children ages 7 to 10 years old. Generally, many interviewees said WCS success stories seemed geared toward learning by adults and children 7 years and older. Several interviewees were interested in the format of WCS success stories, suggesting that hands-on activities might be more engaging than a kiosk or theater display (see the quotation below).

A\* I think the success stories would be interesting for her age and above, and not below. (And how old are you?) C\* 6. (Okay.) A\* And, even older. I mean, she's an old 6-year-old. I can't imagine that many 5 [year olds] and below sitting through that. Unless there was a physical aspect to it. I'm a dancer, so I think that way, something physical, yeah. Or, maybe they could put arts and crafts into that. Like, if they're talking about wildlife and stuff like that, and gardens, maybe they could plant a seed. I know she loves planting seeds and seeing the different stages. So, with each group they could plant a seed and last week's group would probably visit. [male, 40; female, 40; female, 6]

### **OVERALL CONCERNS**

Interviewees also voiced general concerns applicable to all three activities. Several interviewees said they do not visit zoos for activities such as musical instruments and storytelling, but rather to see the animals. Some said that children already have access to activities like storytelling and musical instruments at school and other institutions (see the first quotation below). Several interviewees also suggested that children might not want to sit still long enough to participate in any of the three activities (see the second quotation).

(Okay. Anything that you might be likely to skip over in this section?) A\* I would definitely skip over the musical instruments, skip over the story. Mainly because I'm at a zoo. I've paid to come to a zoo, I want to actually do stuff. Because we can do this stuff [musical instruments and storytelling], I mean, it's fun, but we can do it elsewhere too. [male, 49; female, 10]

(We haven't mentioned anything about the musical instruments.) A\* The musical instruments I think are nice. I think it's like a quick stop. And [the children] can play, for the smaller kids. I think that the little kids, like for toddlers, the musical instruments would be fun. It would be something quick to do, but you don't want to spend all your time there. You want to see the animals. [female, 29; female, 5; female, 8]

## OPINIONS ABOUT FAMILY EXPERIENCES

Interviewees were asked about their perceptions of what constituted a family experience as well as what areas of the proposed exhibition might best facilitate a family experience. Interviewees were also asked to recall family experiences either at the Bronx Zoo or similar institutions. Interviewees' responses varied greatly. Several categories of family experiences emerged from the responses and are listed and described below.

**Family members all participate in an interactive, hands-on activity** (all family members pet and feed animals in the Village area);

When describing examples of family experiences, about one-half of interviewees discussed activities that were interactive, hands-on where the whole family could participate. These often included proposed and existing activities, including the camel safari, petting zoo, animal feeding areas, zip line, and frog jump (see the quotation below).

(So, can you think of any of the activities or things that you've seen in these materials that would really facilitate that kind of whole family experience?) A\* Definitely the camel safari and the petting zoo. (What is it about those two?) A\* She loves animals and she like to feed them. We definitely enjoyed the camel ride last time, so we could do that together again, except we could see more things this time. [female, 36; female, 5]

**Family members all partake in an engaging yet sedentary activity** (all family members watch an animal show or ride the monorail);

About one-quarter of interviewees discussed activities that were engaging but sedentary where the whole family could participate, such as looking at animals, riding the monorail, watching a film, and riding the bug carousel (see the quotation below).

(Can you think of a particular place in the Zoo here or some other park or museum where the whole family really got involved and it was a great experience for everyone?) A\* Well, I like the 4D experience. The 4D theater, that one the whole family enjoyed a lot. (What is it about the 4-D Theater that really is so good for the whole family?) A\* Because we experienced the story with them, together. [female, 35; female, 5]

**Family members share in the same physical space but each attends different activities** (adult reads WCS success stories while child listens to storytelling in the Village area);



Several interviewees discussed proposed components such as the Village area or other institutions such as theme parks, where a wide range of activities could support the multi-generational interests of an entire family within a central location (see the quotation below).

A\* I think the Safari Adventure Village is probably the area that would cover our family best. Because it seems more multi-generational. You know the petting zoo for the little one and I think the camel safari would be great. I think the musical instruments, they would play them. The toddler area, she could do. Maybe while Lily did something else. [female, 47; female, 9; female, 5]

**Family members all participate and reflect on an interactive, hands-on activity** (all family members pretend to be an animal and talk about the animal together).

Several other interviewees described family experiences as ones in which all family members could participate and reflect on an interactive, hands-on activity (see the quotation below). In these cases, activities such as the Village area, petting zoo, prairie dog activity, butterfly garden, and mouse house were provided as examples.

A\* Probably the areas where the kids get to climb, learn about the animals and have a hands-on experience with the animals. Because I know that as they're doing it, you're getting to explain what's going on and talk about the animals a bit. I would say when you're going through and you're feeding the animals, even in the petting zoo here, I'm doing it with him and we're talking about the animals there. I like where they're crawling through into the prairie dog, the fox ears and all that type of things. It's stuff that you're doing with them, and you're explaining where it's coming from. You're listening like the fox. You're crawling like the prairie dog into the hole. So I think those types of experiences are probably how you're doing [an activity] together. [female, 35; male, 34; male, 3]

## CHILDREN'S ZOO LABEL

Interviewees were asked to read an example label from the current Children's Zoo and critique its design and usefulness to facilitate an experience between an adult and child. Responses from family groups with children ages 3 to 6 years old and children ages 7 to 10 years old were similar in nature. Overall, nearly one-half of interviewees stated that they would use the inquiry-based label and explained that it really depended on whether they were the type of parent interested in engaging their child in a conversation (see the quotation below). One-quarter would not use the label either because they did not feel they would notice it or because they prioritized seeing the animals. One-quarter were uncertain as to whether they would use it.

A\* If you're someone that really likes to teach your kids as you go along, [then the label is] something you could definitely experience. If you're the type that wants to stop and ask your kids to answer some questions as you go along, which is actually good to do, but I don't think many people do that. It would be ideal if everybody did do that, quiz their kids as they went along. [The label] would be helpful to the ones who do that. [male, 30; female, 7; male, 5]

Several interviewees also suggested increasing the label's size, and a few mentioned that the Bronx Zoo should think critically about the label's placement to bolster its visibility and usefulness (see the

quotation below). A few interviewees suggested creating physically interactive labels (such as flip labels) and mentioned the labels currently in the butterfly garden as a good example (see the second quotation).

A\* If you're walking around a big zoo with all sorts of extraordinary animals and things, maybe this [label] was by the birds, or by the turtles or something . . . I just don't know who would stop to use it. (Where would it have to be for you to stop?) C\* When we come [into the zoo]. A\* That's actually a good point Annie. That's a very good point. I think that's maybe right. Because there's not that much stuff as you're coming [into the zoo]. I mean [the zoo has] sort of big, larger scale things, you would bother to read [the label]. (So large scale labels, as you're walking along, probably pathways that don't have animals there.) Yeah. I feel like when we're actually by the animals, once you read the name and look at the habitat, you really don't read most of the [information] because your time there is really looking at the animals. [male, 40; female, 7]

A\* She likes the [labels] at the butterfly exhibit. A\*\* Yeah. A\* We did all of those. (What is it about the ones that are there?) A\* She likes to open [the labels] and turn them. A\*\* The [labels] that spin, outside. A\* The manipulatives. [male, 38; female, 36; female, 5]

## EXHIBITION MESSAGES

Interviewees were shown three messages and asked a series of questions to assess which concepts they found personally meaningful and how clearly the themes were represented in the proposed exhibition materials. Overall, interviewees seemed to find the first statement (below) most personally meaningful and best conveyed in the materials. However, many interviewees suggested that all three were present in the proposed exhibition materials and a few suggested that they were interconnected. Exhibition messages are discussed in detail below, and include<sup>5</sup>:

- ◆ It is important to connect people with wild nature.
- ◆ Humans live with and take care of wildlife.
- ◆ Animals live some of the same ways you do.

### IT IS IMPORTANT TO CONNECT PEOPLE WITH WILD NATURE

#### **PERSONALLY MEANINGFUL**

Interviewees said “It is important to connect people with wild nature” was personally meaningful; it was selected most often, by nearly two-thirds of interviewees. Among these interviewees, some said the message made them think of building awareness and respect for animals as well as wanting to understand and protect them better (see the first and second quotations below). A few talked about the reduced ability for city dwellers to connect with animals and the importance of having a place, like the Bronx Zoo, to make that connection (see the second quotation).

(So which of these three [messages] resonates with you personally?) I guess “It is important to connect people with wild nature” because I think that's the point of coming to a zoo is just sort of [to] connect to the animals, see how they live, see what our role is in protecting animals. Nature and animals, we all have to live here together. [female, 44; female, 6; male, 5]

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<sup>5</sup> These messages are adapted from Learning Goals listed in WCS's proposal to IMLS as well as information gathered in a meeting with WCS staff and other exhibition-related materials.

A\* I think the third one, “It is important to connect people with wild nature,” is important, right? Especially if you live in the city and never really see anything, you’re not around animals, right? You don’t know the first thing about how they live! C\* I know the first thing about where pigeons live. A\* Right, exactly. That’s about what we know. A\*\* Pigeons and squirrels. [male, 43; female, 41; male, 6; female, 3]

#### **CONVEYED IN THE MATERIALS**

Interviewees, especially children ages 7 to 10, said “It is important to connect with wild nature” is conveyed well in the exhibition materials; it was selected most often—by nearly one-half of interviewees. They said the message was best conveyed in the exhibition materials and that the hands-on activities described in the materials, like the petting zoo, savannah outlook, and Village area, help people “connect” with wildlife (see the first quotation below). Among those who felt the message was the least represented in the materials, a few said they were unclear about the way people would connect with nature (see the second quotation).

A\* Yeah. I think “It is important to connect people with wild nature.” Definitely. It kind of speaks to the interaction and the different exhibits that you get really hands-on, and that kind of definitely connects to that statement. [female, 36; female, 4]

A\* I think the last one [“It is important to connect people with wild nature” is least represented], only because we’re already connected. Cause I have squirrels in my backyard. You know what I mean? People will kind of assume it that way. [female, 47; female, 21; female, 5]

#### **HUMANS LIVE AND TAKE CARE OF WILDLIFE**

##### **PERSONALLY MEANINGFUL**

About one-third of interviewees said the message “Humans live with and take care of wildlife” was the most personally meaningful; it ranked second among the three messages. They generally interpreted the phrase to mean helping animals avoid such things as poaching and extinction, though one child understood it to mean helping injured animals (see the quotations below).

C\* Humans live with and take care of wildlife. (Okay. So you think that’s important?) C\* Yeah, because people are just killing animals and we’re starting to have less animals. And it’s not good because if there are no animals, then we wouldn’t have all this, we wouldn’t have zoos. [male, 38; male, 8]

C\* I like the “Humans live with and take care of wildlife” and “It is important to connect people with wild nature,” too, because [the messages] show how, even through the animals are supposed to be able to take care of themselves, we have to also help them. Because if you see an animal that’s maybe hurt, and even though you’re suppose to leave it, sometimes they say leave it, you also want to tell someone who’s allowed to help the animal that’s hurt. [male, 39; female, 38; female, 10; male, 7]

##### **CONVEYED IN THE MATERIALS**

“Humans live with and take care of wildlife” was not conveyed well in the exhibition materials; interviewees selected it least often. For instance, some thought the message was unclear in how it is worded, and a couple interviewees thought that the message was present but could be reinforced more strongly (see the first and second quotation below). Among the one-quarter who said the message was well conveyed in the materials, most could not pinpoint a specific activity or area where the message was exemplified, but rather referred to the exhibition generally (see the third quotation). In a few cases, interviewees noted that the combination of this message along with “It is important to connect people

with wild nature” was best conveyed in the materials. In these instances, interviewees cited activities such as the camel safari, animal feeding areas, and the walking safari (see the fourth quotation).

A\* The message is kind of odd. I don’t disagree with it, but it says, “Humans live with and take care of wildlife.” It’s wildlife management, and I’m familiar with that concept. But, it just seems kind of weird. I don’t know why, but, “Humans live with and take care of animals,” maybe. Or... (So re-word it?) A\* Yeah. You should probably re-word it. [male, 37; female, 4]

A\* Yeah. The first one, “Humans live with and take care of wildlife.” I think maybe if they had something there like a person going to different parts and talking a little bit about things that people could do. Like a little informational thing, almost like a little kiosk-type thing where they could talk about things you could do, and then not have it stationary all the time, move it around to different parts. [male, 67; female, 5]

(And do you think one of these was communicated better than the others in the new exhibit?) A\* I think “Humans live with and take care of wildlife.” The message shows us how to take care of the different animals and things. So, I think that’ll really help with the message you’re looking for. [female, 47; female, 21; female, 5]

(Thinking again about the materials and activities that you saw, do you think one of these is communicated better than the others?) A\* Yeah, the “Humans live with and take care of wildlife” and “It is important to connect with wild nature.” (Okay. Any particular activities that come to mind?) A\* Like the animal feeding, and the [camel] safari, and I guess the [walking safari.] [female, 36; male, 5]

## **ANIMALS LIVE SOME OF THE SAME WAYS YOU DO**

### **PERSONALLY MEANINGFUL**

Just a few interviewees said the message “Animals live some of the same ways you do” was personally meaningful. Among these interviewees, some made general comparisons between animals and humans, while others more specifically cited behaviors such as eating, playing and taking care of families (see the quotations below).

(Do any of these statements personally resonate with you?) A\* I like the [“Animals live some of the same ways you do”] the most because it tells you that animals are basically the same as you. They do all the same things you do . . . how the animals eat just the same as us and take care of their children like us too. [female, 47; female, 26; female, 8; male, 3]

C\* Because there are animals, like gorillas, that do live the same way we do. Sort of, and monkeys that sort of have the same brains as we do. Sort of carry on the same way we do. [female, 40; female, 9]

### **CONVEYED IN THE MATERIALS**

Interviewees, especially those with children ages 3 to 6 years old, said that “Animals live some of the same ways you do” was conveyed well; in total about one-third said the message is well represented in exhibition materials. Interviewees most often named the camel ride, play area, walking safari, as well as activities that encouraged children to interact with and/or pretend to be animals as representatives of this idea (see the first quotation below). On the other hand, several interviewees said that this message was not conveyed well in the materials. A couple of children said the message is not true, and a couple of adult interviewees said the message also did not ring true to them at first (see the second, third and fourth quotations).

A\* I think that the whole section where the kids can pretend to be like the animals would be “Animals live some of the same ways you do.” [male, 40; female, 40; female, 6]

A\* “Animals live some of the same ways you do.” I never thought of that, but okay. I mean, like I’m, you know, I’m reading that and I’m saying, “Wait. Does a hippo live the same way that I do? Or a crocodile?” So, I don’t know. That’s a question. That makes you think. [male, 69; female, 5]

A\* In fact, most of it shows, look how animals live, and how different it is. Like the example, swoop down like an eagle to get your food. Run like a cheetah. Hop like whatever it is. That’s kind of pointing out differences as opposed to similarities. [male, 39; female, 38; female, 10; male, 7]

(Okay. Any of these that could be communicated better?) A\* Probably the middle one, “Animals live some of the same ways you do.” I’d probably flip it around. Say, “We’re all animals,” or something like that, “and we all have similar needs.” So food, shelter, etc. [female, age unknown; male, 7]

## RECOMMENDED IMPROVEMENTS AND SUPPLEMENTARY MATERIALS

Interviewees were asked what else the Bronx Zoo could provide to facilitate a great wildlife experience for children as well as to rank their interest in several proposed supplementary materials.

### IMPROVEMENTS

Among open-ended commentary for areas of improvement, about one-half of interviewees commented that the Bronx Zoo could facilitate more immersive and interactive experiences with animals. Interviewees suggested having a greater variety of animals; more opportunities to pet, feed, and ride animals; as well as generally providing more immersive experiences with wildlife (see the quotation below).

(Are there any other suggestions you might have that would create a great wildlife experience?)

A\* I think everything here is already pretty great. The only thing I could think of is, maybe, a few different animals. Just change things up a little bit. We’ve been here I think four times, pretty much every year since he’s been born. So once in a while we’ve seen the baby animals, and so it’s time to see something new and different. So variety in that regard would be really cool. [female, 36; male, 4]

About one-third of interviewees suggested offering more interactive, hands-on options that did not directly involve animals such as climbing, arts and crafts, games, and overall, more opportunities for children to play (see the quotation below).

A\*\* You like crafts a lot. A\* Sometimes [the zoo has] crafts here and she really likes that. What did you make here last time? C\* The crocodile puppet. A\* A crocodile puppet. A\*\* You did, with a paper bag, right? That was cool. And you like all the things that you can climb on, right? C\* Like the spider web. A\*\* The spider web is cool. [female, 36; female, 5]

Several interviewees said the Bronx Zoo should have more educational components, specifically to engage and provide learning opportunities for older children (see the quotation below).

A\* I love when we went to the horse stables and they had barn management. I would love to see some of that for the kids, like having a junior zookeeper where they can live a day in the life of a zookeeper. I think that would be great! [female, 34; female, 8; female, 6]

A few interviewees suggested that the Bronx Zoo become more physically and financially accessible; specifically increasing the number of monorail stops, providing motorized wheelchairs, and reducing the cost of admission (see the quotation below).

A\* Here's one thing I think you should do. Because I just had knee surgery, and the reason I haven't been here for the past three weeks is because there wasn't enough motorized wheelchairs. Even wheelchairs. I mean, she [wife] couldn't carry me. A\*\* And I couldn't stroll him either because I had the baby. A\* Now, I know they probably don't want wheelchairs around here too much frankly, because they have only a few of them and they're first come, first served. But, if they actually care . . . [the zoo would add] not just wheelchairs, but something motorized, compact. If people can ride [motorized wheelchairs] in the streets in New York, why can't they do it at the zoo? I would have been here in a heartbeat. [male, 40; female, 40; female, 6]

A few interviewees also reminisced about and recommended bringing back the skyfari ride (see the quotation below).

A\* Just so you know, the kids talk a lot about the skyfari that's gone. (Let me just be clear about that. The skyfari, was this a cable car kind of thing?) A\* Yeah. It was cable cars in the sky. (It's good to know that that was a major part of the experience.) A\* It was a major part of the experience. [female, 41; female, 6]

## **SUPPLEMENTARY MATERIALS**

Interviewees were asked to rank their interest in several proposed supplementary materials including a mobile phone app, a field guide and adding more pre-visit information to the website.

### **MOBILE PHONE APP**

Among the three components, interviewees with children in both age groups were most interested in the mobile phone app. About one-half of interviewees selected it as their first choice. Several interviewees mentioned using apps at similar institutions such as Sea World and a few noted that they had looked for a Bronx Zoo app before visiting that day (see the first quotation below). Interviewees also identified which components they would want in a zoo app, including: a map, directional navigating system, information about animals, reminder alarms for animal shows, and interactive components for children (see the second quotation). In contrast, one interviewee said the app was not conducive to having a family experience (see the third quotation).

A\* We just got back from Sea World and they had an app. If you wanted to go to a different exhibit, [the app] was kind of telling you what path to take and stuff. I would think that would be probably high on the list. I would think, probably a seven. C\* So, Sea World had it, and we got it, and it wasn't free. You had to pay money for it. And, also, you have to have Internet access to do it on your iPod. And, also, you couldn't type in the destination that you wanted to go [to]. There was just a map. There was no route to take. It didn't highlight anything and I would have liked [it to]. I would like the Bronx Zoo to have [an app] that you could type in [a location and get directions to it.] And also have a lit up path [displayed.] [male, 50; female, 12; female, 7]

(Anything other than a map that you would want the app to do?) A\* If there were those little scan things [QR codes] by the animals, we can get more information. Instead of sitting there, trying to read all the print, and you've got people trying to trample you, you scan it and it would give you all the information. That would be good. Right? Now you could take it to go, if you don't have time to sit around. [female, 47; female, 28; male, 6; male, 2]

A\* I don't know. I might just be too old, but I've been to museums and things where they have [an app], and I rarely take advantage of it. I think if I was on my own, I'd be more likely to [use an app.] But I don't think that's a family thing. Because if you're looking [at your phone], you can't all be looking at the same screen. You're looking on there, someone's going to be running in the opposite direction, or bored, or anything else. Yeah. As a family thing, I don't think [an app would] be great. [male, 40; female, 7]

### **FIELD GUIDE**

Interviewees were divided on the subject of the field guide. About one-third of interviewees selected it as their first choice. Some interviewees were unclear as to the differences between the proposed field guide and existing zoo map. Several interviewees said that the field guide would be an extra handout to carry around and would prefer to use the app instead. However, several interviewees envisioned the field guide as an interactive opportunity for their children, suggesting that it could be used as a journal, informational guide about animals, or as a passport to collect stamps from various areas of the zoo (see the quotations below).

A\* I think a hands-on field guide would be really cool. If you're gearing it towards children, I think it would be really cool. I know most of the adults would walk around with the app. I guess it depends on who you're gearing it towards. I know, my kids... look at this kid walking around with his map and it kind of empowers him a bit. [female, 42; male, 7]

A\* I like the field guide. And even one where they could take a note. We went to this Egyptian museum in California, and they have this really neat booklet and then, there were stamps. Once you had gone through certain things or once you had found something, you got a stamp. Clarissa really liked it and took a lot of notes in it. I think something like that is kind of fun. [female, 44; female, 6; male, 5]

### **PRE-VISIT WEBSITE INFORMATION**

When asked about including more pre-visit information on the Bronx Zoo website, approximately one-fifth of interviewees selected it as their first choice among the three components. In terms of current use, several individuals said that they do not use the website for pre-visit information because they either come too often or because of the impromptu nature of their visit. A few individuals said they use the website for pre-visit information to find out about zoo hours and exhibition schedules.

Some interviewees offered a couple reasons why adding more pre-visit information to the website would not be their first choice. A few suggested that the website was useful in its present state and did not need to be updated (see the first quotation below). One interviewee indicated that he felt the website too cluttered as is and needed to be streamlined rather than to have more information added to it (see the second quotation).

(So the last one to rank is more pre-visit information on the website.) A\* [Adding more pre-visit information to the website] would be nice. I mean, the website's definitely helped. We went on [the website] last night and we kind of just looked to see what was going on. I think the website gives a nice summary of events and activities. So, I don't think there's any major improvements

needed on the site. I found it was helpful and useful. The search function works. [female, 36; male, 4]

(What about adding more information to the website?) A\* I think [the website is] already overloaded. I think if you somehow get like the ten absolutely, absolutely most asked questions...by far, over the last ten years, this is what was always asked. To make those several pages easily identifiable. (So, making the most requested information, more accessible?) A\* Easily accessible. I really think it's beautiful, the website. It's colorful. It's got nice pictures. But it's a lot of information. I personally think [the website] needs to be cleaned up a bit. [male, 40; female, 40; female, 6]



# APPENDICES

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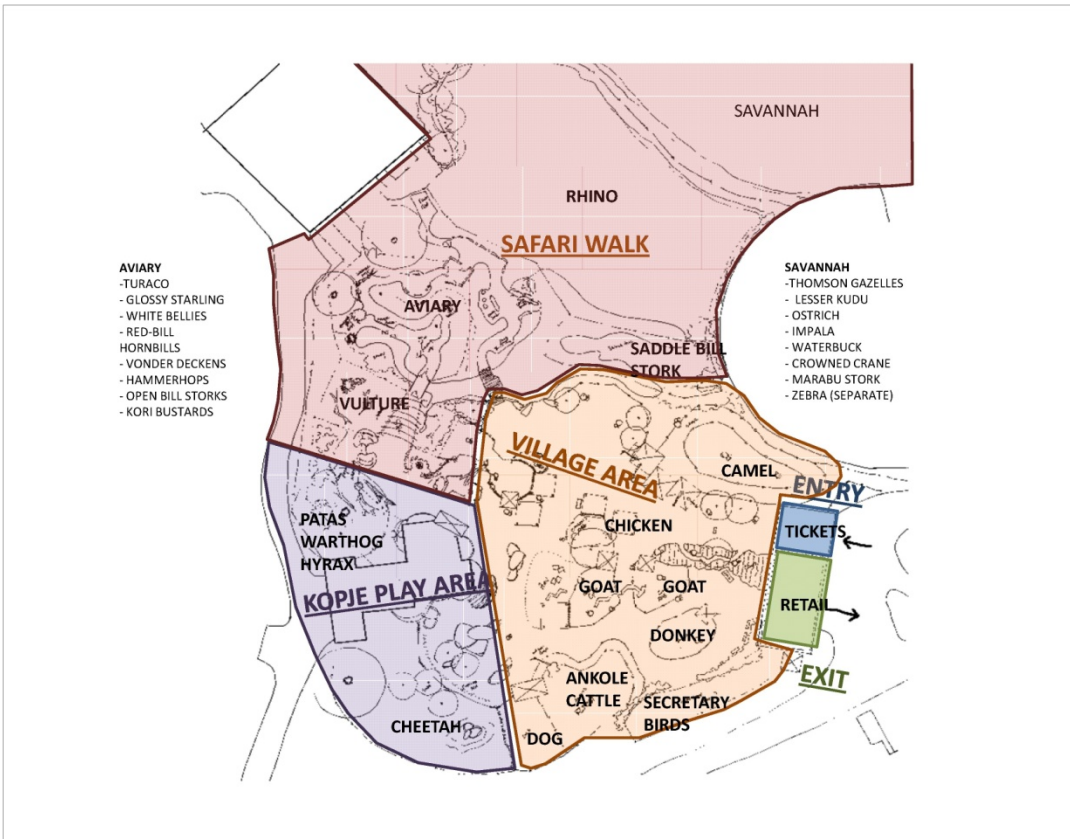
## APPENDIX A

### INTERVIEW GUIDE

REMOVED FOR PROPRIETARY PURPOSES

# APPENDIX B

## PROPOSED EXHIBITION BOOKLET MATERIALS



### Safari Adventure: The Village

In the first section of the exhibit, you are immersed in an African village, filled with activity and opportunities to get close to and care for animals.

**Petting Zoo** – Practice taking care of animals by feeding and petting goats, donkeys, chickens, and cows.

**Savannah** – Experience stunning, long-range views of the savannah and animals like rhinos and zebras.

**Story Telling** – Listen to stories and folk tales of amazing African wildlife.

**Camel Safari** – Experience a one-of-a kind viewing of the African Plains on camelback.

**Musical Instruments** – Try your hand at a finger piano, drum, or Ankole cattle horn and explore cultural art & artifacts.

**Toddler Play Area** – Explore nature through colors and texture, touch and hands-on activities.

**Success Stories** – Learn about how villages in East Africa are building a future for wildlife by training poachers to grow community crop gardens.



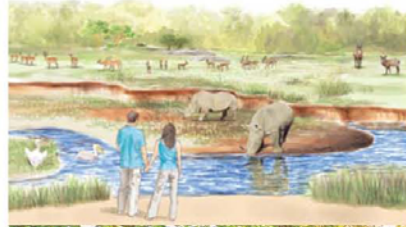
**Safari Adventure: Walking Safari**

Discover how animals live some of the same ways you do, needing food, water and shelter, too, as you walk through the tall grasses of the African Plains in this portion of the exhibit.

Animal Movements – Walk like a lily-trotter, jump like an impala, or fly like a saddlebill.

Animal Food – Swoop like a vulture descending for a meal or try your hand at feeding a rhino.

Animal Homes – Crawl through a termite mound or climb into a human-sized hammerkop nest.



**Safari Adventure: Kopje Play Area**

In this area of the exhibit, find out what its like to be an animal by adventuring through crevices of the large kopje rock outcropping.

Patas Monkeys – Climb the same tree as the playful and agile patas monkeys and explore their habitat.

African Fish Eagle – Get a bird’s eye view as you fly on a zip-line around the Kopje.

Cheetah Run – Play like a cheetah cub and see how fast you can run.

Warthog Burrow – Be a warthog in a burrow without having to use your snout as a shovel.



**Humans live with and take care of wildlife.**

**Animals live some of the same ways you do.**

**It is important to connect people with wild nature.**



## APPENDIX C

### DEMOGRAPHIC PATTERNS OF PARTICIPANTS

#### GENDER AND AGE

**TABLE 1**

#### GENERAL DEMOGRAPHIC CHARACTERISTICS

<b>ADULT GENDER (<i>n</i> = 70)</b>	<b>%</b>
Female	60
Male	40
<b>ADULT AGE IN YEARS<sup>1</sup> (<i>n</i> = 64<sup>2</sup>)</b>	<b>%<sup>3</sup></b>
17 – 24	3
25 – 34	17
35 – 44	52
45 – 54	20
55 – 64	5
65+	2
<b>CHILD GENDER (<i>n</i> = 70)</b>	<b>%</b>
Female	53
Male	47
<b>CHILD AGE IN YEARS<sup>4</sup> (<i>n</i> = 70)</b>	<b>%</b>
3 – 6	53
7 – 10	47

<sup>1</sup>Age: range = 22 – 34; median age = 30; mean age = 29.3 ( $\pm$  3.79)

<sup>2</sup>Six adult participants did not identify their age.

<sup>3</sup>Percentages do not total 100 percent due to rounding.

<sup>4</sup>Age: range = 22 – 34; median age = 30; mean age = 29.3 ( $\pm$  3.79)

#### ETHNICITY

**TABLE 2**

#### ETHNICITY

<b>ETHNICITY (<i>n</i> = 57<sup>1</sup>)</b>	<b>%<sup>2</sup></b>
Caucasian/white	75
Hispanic/Latino	19
Asian/Pacific Islander	12
African American/black	7
Other <sup>3</sup>	7
American Indian/Alaskan Native	2

<sup>1</sup>One family group did not identify their ethnicity.

<sup>2</sup>Percentages do not total 100 percent because respondents may be multi-racial.

<sup>3</sup>Other ethnicity (*n* = 4): Pacific Islander, *n* = 1; Indian, *n* = 1; did not specify, *n* = 2.

**EDUCATION**

**TABLE 3**

**LEVEL OF EDUCATION**

<b>EDUCATION (n = 54<sup>1</sup>)</b>	<b>%</b>
High school graduate	4
Some college	7
College graduate	46
Post-graduate degree	43

<sup>1</sup>Four family groups did not identify the adult interviewee’s education level.

**VISITING PATTERNS OF PARTICIPANTS**

**WILDLIFE CONSERVATION SOCIETY MEMBERSHIP**

**TABLE 4**

**WILDLIFE CONSERVATION SOCIETY MEMBERSHIP**

<b>WCS MEMBER (n = 54<sup>1</sup>)</b>	<b>%</b>
Yes	78
No	22

<sup>1</sup>Four family group did not identify if they are WCS members.

**VISITATION**

**TABLE 5**

**VISITATION**

<b>NUMBER OF VISITS TO THE BRONX ZOO IN PAST 24 MONTHS (n = 57<sup>1</sup>, n = 54<sup>2</sup>)</b>	<b>%<sup>3</sup></b>
None	11
1	11
2 – 3	18
4 – 6	16
7 – 10	25
11 +	16

<sup>1</sup>One family group did not identify if this was their first visit to the Bronx Zoo.

<sup>2</sup>Four family groups did not identify how many prior visits, if any, they had made to the Bronx Zoo.

<sup>3</sup>Percentages do not total 100 percent because participants answered that they had visited the Bronx Zoo before but did not indicate how many times they had visited in the past 24 months.

## ATTRACTIONS

**TABLE 6**

**AREAS AND ACTIVITIES OF ATTRACTION**

<b>ATTRACTIONS (<i>n</i> = 53<sup>1</sup>)</b>	<b>%<sup>2</sup></b>
Visited the Children's Zoo	77
Touched or petted an animal	76
Rode on the Bug Carousel	66
Used a view scope to see animals	55
Provided food for an animal	53
Pretended to be an animal on the animal activity trail	35
Rode a camel	32
Took a picture with animals at a photo booth	21

<sup>1</sup>Five family groups did not report whether or not they attended any of the listed attractions.

<sup>2</sup>Percentages do not total 100 percent because respondents may have attended multiple attractions.