

## Some Observations on Natural History Museums and Zoos in the Republic of Burundi: A Pilot Study

Albert Ndayitwayeko  
AFGRAD Fellow  
University of Florida  
Gainesville, Florida

and

John J. Koran, Jr.  
Professor and Curator, Science Education  
Florida Museum of Natural History  
Gainesville, Florida

### Introduction

Burundi is a small country located in Central Africa and bordered by Zaire, Rwanda and Tanzania. Nearly three-quarters of the population suffers from chronic illiteracy and there is little hope for a reversal, given the lack of sufficient schools for educating an ever-growing population, the shortage of economic resources, limited school supplies and experienced teachers. In this climate, formal education is not, by itself, able to provide the majority of the people with minimal educational needs. Since this is the case, the authors have taken a close look at conditions in the informal area, focusing on Natural History Museums and Zoos in Burundi and examining selected static and dynamic exhibits and visitor behavior. It may well be that informal learning could become a valuable and less expensive adjunct to formal learning.

Photographs were taken of selected museum and zoo exhibits which dealt with crocodile and a "small reptile petting" exhibit. In addition, a Likert scale of 10 items was used to assess visitors' interest, a questionnaire of 20 items was used as a basis for determining whether visitors felt they had learned from the exhibits, and a structured interview was used to collect general information about visitors. However, all of these instruments were designed without taking into account the cultural context of Burundi (even though the first author is a native Burundian). Subsequently, we found that the museums and zoos charged a small fee by American and European standards, but a prohibitive one by Burundian standards. As a result, few Burundians were able to visit these areas. Further, those Burundi citizens who could afford to attend a museum or zoo did not want their pictures taken nor did they want to participate in the data collection. The average Burundian had little access to, and high levels of suspicion of, these settings. Consequently, Europeans for the most part constituted the sample. Some data was collected though, that identifies problems which museologists will have to confront in the future.

For one, a lack of resources and familiarity with traditional static and dynamic formats led to the development of small, unnatural habitats for animals, and exhibits that had no graphics. Species were frequently mixed in a succession of cages of exhibits which lacked any logical cohesion. Indeed, in some cases, abrupt changes in contexts probably hampered information processing by those visitors who did pass through. Although the time spent before both static and dynamic exhibits averaged three minutes, visitors were not receptive to filling out the instrumentats before or after exposure. Our

measuring instruments, though familiar to all of us, were not familiar to Burundians and they either chose not to respond or were unable to respond. Tourists from outside Burundi were also suspicious of the researchers motives and, in many cases, refused to have their pictures taken or respond to the instruments. Even in the face of these obstacles, some data was collected and led to the following reflections on needed developments in Burundi.

### Discussion

A clear public policy concerning the development of museums, zoos, natural forested areas and nature preserves is essential. However, at this early stage of development, the inclination of authorities in Burundi to emphasize visitor learning, interest and personal development has taken a back seat to an emphasis on economic values inherent in artifacts and wildlife protection. Any policy that does emerge will have to confront both the economic necessities of the country and universal values of conservation and interpretation of wildlife and artifacts.

While this pilot study pointed out the deficiencies in transplanting methodologies from one culture to another, it also yielded useful observational information which suggests the following:

1. As in many international contexts, audiences in Burundi should be prepared to learn from informal learning settings and to blend formal learning with out-of-school learning.
2. Legislators, museums and zoo planners must be taught the necessity of balancing economic interests while developing informal education settings.
3. Informal learning opportunities probably can be contrived at a lower cost than formal learning settings. Hence, policy makers need to become aware of this and convinced that some funds need to be invested in museums and zoos to result in a growing public literacy.
4. Burundi needs a plan for designing museums, zoos and other informal settings which emphasize learning from exhibits and the stimulation of national interest and pride through informal learning.
5. Financial support needs to become available to assist the growth and encouragement of specific projects dedicated to protecting wildlife and the environment.
6. As things progress, a consistent informal education curriculum needs to be identified and connected to

the formal education opportunities at all levels.

7. Finally, the museum entrance tax should be removed for citizens of Burundi and raised for tourists.

The aforementioned recommendations and observations have resulted from a six week study of museums and zoos in Burundi. More time and an in-depth systematic analysis of specific museums and zoos is necessary. Clearly, there are many policy decisions that need to be made regarding the course of education in this small African republic, and the relationship of formal to informal education. At the same time, a cadre of trained museologists is necessary to start

developing effective exhibits. This could result in the modification of existing exhibits and facilities. Last, but not least, access to these settings should be made available for all, and viewed as one step toward the development of a literate public. Although the instrumentation did not provide the rich collection of data anticipated by the researchers, each instrument (to the extent that it could be used) provided the basis for valuable anecdotal data and insights into the fertile area of international informal learning. In the final analysis, many developing countries may well choose to make major investments in informal learning since a larger and broader public can be reached at a lower cost than the alternatives. □

## Visitor Response to a Native Plant Habitat Exhibit

Richard Schulhof  
The Arnold Arboretum  
of Harvard University  
Jamaica Plain, MA

Native plant habitat exhibits are botanic garden displays of native plants designed to simulate the structure and visual character of a natural plant community. Intended to educate visitors about the value of native floras, plant ecology, and the need to preserve wild habitat areas, these naturalistic exhibits are becoming commonplace in American botanic gardens. A study at North Carolina Botanical Garden (NCBG) utilized exit interviews, unobtrusive observation of visitors, and visitor-employed photography to assess to what extent visitors appreciate and explore the native habitat exhibit environment, and, more importantly, identify the factors influencing their response to it.

Habitat exhibits at NCBG offer visitors the opportunity to see, hear and feel the unique environmental qualities of the Pine Savannah, Pocosin, and Sandhill plant communities of the North Carolina coastal plain region. Traveling along a boardwalk and path network, visitors encounter small (generally less than .4 hectare) stylized recreations of plant communities. Described as more diverse and lush than their natural counterparts, NCBG's habitat displays may be seen as concentrated, dramatized representations of native vegetation. Interpretation of the experience is provided by trail-side story labels which offer graphic illustrations and text explaining plant adaptations and other unique aspects of the habitats.

### Method

Exit interviews with 77 visitors utilized naturalistic evaluation techniques (Wolf, 1979) to illuminate how personal background and experience influence visitor response to the exhibit. Questions such as, "Why did you come to the garden today?"; "What do you think is its purpose?"; "What would you do to improve it?" were used to initiate and direct interviews. All subjects followed the same 130 meter

route through the exhibit, and were chosen randomly from those visiting the garden during a 14-day period.

### Results

Analysis of interview data asked two fundamental questions: "Did the visitor understand what the exhibit represented?" and, "Did the visitor appreciate and enjoy the experience?" Visitors who claimed an interest in native plants, ecology or natural history, or who came to the garden to "learn" expressed greatest appreciation for the habitats, finding the vegetation "interesting," "attractive," and "diverse." Conversely, visitors lacking such special interest or knowledge, or who came to the garden to stroll and "see pretty things" were the most likely to be puzzled by the unfamiliar habitats and respond negatively.

On the whole, visitor expectations of NCBG strongly influenced response to the exhibit. Many first-time visitors arrived at NCBG with expectations of formal, colorful garden displays and were often disappointed by the plant community exhibits which they described as "unkempt," "overgrown," and "depressing." As one visitor said, "It looks like a field ditch. I can see that along the side of a road."

These findings suggest that, for a significant number of visitors, a naturalistic exhibit of native vegetation is an unexpected, unfamiliar, or even unwelcome type of botanic garden feature. Further, they underscore the importance of providing interpretation which anticipates and ameliorates possible visitor confusion or disappointment, providing the information necessary for visitors to appreciate and understand the habitat exhibit's unique message and purpose.

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