



Creating the Nation's first BioPark

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Letter from the Desk of David Challinor
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At a recent dinner held in the Elephant House, two guests told me that they were disturbed by the sight of the elephants and giraffes confined under what they perceived as unnatural conditions and worried about the animals' welfare. Their reaction is quite normal and their feelings are certainly legitimate; it is one shared by zoo directors and their staffs. I would like to address this widespread sympathy which often arises, I feel, through a misperception of what life is like for a zoo animal.

When one sees elephants in the wild or in nature videos, we as humans tend to put ourselves into what we believe are equivalent circumstances. The grassy plains of Kenya with a snow-capped mountain in the distance is indeed an inspiring sight for us, especially if seen from an open-topped Land Rover. For the elephant, however, the scenery is irrelevant. The animal must devote all its energy to finding enough food and water to stay alive and to maintaining or improving its position in the hierarchy of the herd. It does not have any concept of freedom as humans do. The impact of humans on the original elephant habitat puts further constraints on elephant mobility by curbing traditional migration routes with fences, cultivated fields, diverted rivers, etc.

I deliberately chose to discuss elephants in this letter because humans are the only direct vertebrate predator of this magnificent beast, as well as the major modifiers of its habitat. I should also mention that elephants (and other wild animals) are prey to a host of external and internal parasites, as well as innumerable bacterial pathogens that are often lethal to drought-stressed individuals.

How elephants prosper and multiply in "natural" conditions is often a matter of luck. If their habitat is too remote, park wardens are not available to dig water wells during an abnormally dry period and the elephants die of dehydration. Under surplus food conditions, they often reproduce so much that they soon eat up their food supply and, with no wardens to cull them, many starve before their population is brought back into balance. Those animals that live in South Africa's Kruger Park are lucky because they are provided with water when needed. They are protected from poaching because the government of the territory in which they live is prosperous enough to guard them. In small developing nations, the conditions are often quite different.

Now let us consider the three current occupants of the Zoo's Elephant House and their two different genera: Nancy (African), Ambika (Asian) and Toni (Asian). Shanti, our fourth elephant, was a gift from the government of Sri Lanka during the Carter administration and is presently on breeding loan to the zoo in Syracuse, New York. Nancy has been at the National Zoo for 36 years. Born in Kenya, she arrived as a 2-year-old. Ambika worked in a logging camp in India and came to us as a 13-year-old in 1961, a gift of the Indian government to the children of America. Toni came from Scranton, Pennsylvania in 1989 and was the last animal in the Scranton Zoo before it closed. Now in her 20's, she had been alone in her quarters in Scranton for eighteen years. Nancy, the largest of the three and the only one with tusks, had been kept separately from Shanti and Ambika for fear of conflict between the two elephant genera, although she had shared her quarters for 15 years with a male forest African elephant, a smaller subspecies of the better known plains type of elephant, who subsequently died. Offsetting this understandable concern for the elephants' safety was an even greater consideration: both African and Asian elephants are essentially social creatures.

In 1988 the National Zoo undertook a novel approach to the management of its elephants. For four months in the spring and summer Nancy, whose outdoor yard had been separated from that of the two Asian elephants by the rhinos' yard, was allowed into the rhino enclosure (when the rhinos were elsewhere) so that she could contact the two Asians (Ambika and Shanti) over a log wall. Initially the introduction triggered much trumpeting and sniffing over the barrier. Finally, after a few weeks of trunk contact, Nancy was allowed in the Asians' yard with the keepers alert for any trouble. The introduction went smoothly, and Nancy promptly established dominance over the two tuskless females. The group is now adjusted and comprises a viable, if artificial, elephant community.

We might contrast the quality of zoo life for these three elephants with what their life might have been on the African savanna or in the Asian forest. Housed in zoo quarters, the animals have each other for social interactions. They are fed regularly and their health is monitored by a devoted group of keepers backed by the Zoo's skilled veterinary staff. They are exercised daily and trained to be handled for routine examinations for cuts and scratches or for trimming toenails. Finally, we must remember that animals, unlike humans, do not seem to have a concept of the passage of time.

For all these benefits, they are freed from being almost constantly on the move looking for sustenance and avoiding poachers. The Zoo elephants have settled down in an artificial habitat, just as we humans have. Very few of us now live on the savannas from where we are believed to have evolved, and most people reside in the extremely artificial conditions of our contemporary cities. Are we "happier" in the cities now than we

were in the savannas? It seems to me that this is the wrong question. The question should be: Do more of us survive and live longer under current artificial conditions? The answer is unequivocally "yes." The same consequences are evident in the artificial habitats of zoo animals.

To conclude, I sympathize fully with zoo visitors who are disturbed to see animals far removed from their original habitats. Those of us (myself included) who have been lucky enough to see megafauna (giraffes, rhinos, elephants, etc.) in the wild are forever touched by the sight. This sense of awe which is felt when we encounter animals in the wild will be the topic of a future letter. My plea, therefore, is to recognize the condition of zoo animals as being different, but neither better nor worse than their original state. At the very least the conditions in the zoo are much more stable than in the wild. I should also mention that just as most citizens of Nairobi or Kampala have never walked or even driven across the nearby savannas of their countries, so roughly 85% of zoo mammals are second and third generation zoo-bred and thus have never experienced "wilderness." Each year the percentage increases as the cost of wild capture and transport escalates and the danger of introduced disease becomes increasingly threatening to domestic stock.

Be assured that all zoo personnel have the welfare of their charges as their paramount priority; in the major zoos, the devoted attention of these professionals is evident to all. From their close contact with zoo animals, we learn how to keep the animals healthy in artificial conditions and also gain a clearer understanding of how the animals' existence has evolved in their normal habitats, i.e. their reproductive cycles, courtship displays, dominance hierarchy, and many other facets of their lives. It is this learning process which makes working at a zoo so interesting.

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