

**Chicago City Council**  
**Parks and Recreation Committee Briefing – August 25, 2005**  
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Over the last decade or so western society has witnessed an important shift in consciousness concerning the welfare of non-human animals. Much of the impetus for this swing in opinion has been driven by the results of scientific studies which have shown many species to be capable of experiencing not only pain and suffering, but multifaceted emotions and reasoning within complex social and cognitive settings. Through a wealth of scientific publications, popular essays, books and documentary films, studies of elephant behavior have contributed substantially to this change in outlook, challenging the *status quo* with regard to elephant social, communicative, cognitive, and emotional abilities.

We now know that, like humans, elephants live in multifaceted societies. They are highly intelligent, possess complex emotions, exceptional memory and are unusually long-lived. They can remember other individuals after more than a decade of separation, and are capable of emotions such as joy, anger, grief, sympathy, playfulness and revenge. Using scores of different vocalizations, expressions, and gestures, elephants are able to communicate specific information and emotions, and they use these to reinforce bonds, care for youngsters, reconcile differences between friends, form coalitions against aggressors, coordinate group movement, and keep in contact over long distances. Their development includes social learning and behavioural innovation, both of which are evident in the use and modification of simple tools, such as fly whisks, and in the imitation of sounds of other species and even machines. Elephants recognize their own image in a mirror indicating that elephants are self-aware, and numerous observations suggest that they have the capacity for both empathy and anticipatory planning, including the possibility of imagining future events, such as pain to themselves and others. In addition, like human beings, elephants suffer long-term psychological effects of trauma and abuse, which may be expressed in the form of inappropriate and hostile behavior. Taken together these scientific discoveries require improvement in the way we care for elephants and demand that we err on the side of caution when the interests of elephants are being considered.

To a large extent, the change in attitude toward elephants is a direct consequence of the numerous scientific publications and documentary films produced by long-term field research that is exemplified by the Amboseli Elephant Research Project, in Kenya. Initiated by Cynthia Moss in 1972, the AERP's vast databank contains 34 years of detailed records of over 2,200 individually known elephants and forms a unique and priceless resource. In addition to the regular long-term monitoring of individual elephants, scientists from around the world have undertaken a broad range of comprehensive studies on different aspects of elephant biology and behavior. The published results of this large body of work form the essential basis for our current insight into what it means to be an elephant, and is vital to our understanding of the ecology, population dynamics, social behavior, and cognition of all species of elephants everywhere.

By attempting to mimic wild environments, zoos have made major advances and, for many species, wild biology is now the basis for exhibits. But, for elephants, with more than 4,000 years of exploitation by humans, the starting point is too often merely what has gone before. Zoos and circuses have tended to treat elephants as if they are a domesticated species and, as a result, find themselves trying to justify or adapt management methods that are really about maintaining the animal as a beast of burden in various guises. Because the human-elephant relationship is historically exploitative, tradition in this case is not a reliable guide to elephant needs and interests. Let us compare the life histories and behavior of the 2,200 free-ranging individuals who have been studied in Amboseli, with the health and behavior of elephants in captivity, including those living in institutions that meet American Zoo and Aquarium Association (AZA) standards, currently accepted as the industry's best practices.

In captivity, AZA space requirements (to be met by May 2006) are 400 sq ft, indoors, for a single female, and 600 sq ft for a male or female with a calf. Outside the requirements are 1,800 sq ft for a single animal with an additional 900 ft for each additional elephant.

In Amboseli, elephants inhabit a relatively small area with members of the population ranging over approximately 600 sq miles. Each elephant and its family have a core area of use encompassing at least 75 sq miles. Elephants travel 5-10 miles a day, frequently walking further in areas of lower resource availability.

In captivity, until just 10 years ago, elephants were chained 16-18 hours a day at a majority of zoos. Today AZA requirements state that, "chaining is an acceptable form of

temporary restraint”, although “temporary” can actually mean up to 12 hours per day. In Amboseli elephants roam, walking, moving while feeding, or interacting, for almost three quarters of every day, only stopping to stand and rest a couple of hours day.

The AZA allows mothers and calves to be separated after only three years and in circuses calves are separated for training and performance even earlier. In reality, due to maternal rejection infants are often taken from their mother’s soon after birth. In Amboseli males live with their mothers until an average age of 14.3 years (range 9-18) and females remain with their natal families for life. Elephants in the wild are raised in a nurturing environment where they are protected, comforted, and reassured; contrary to claims by some, elephant calves are not physically “disciplined”.

Current zoo standards recommend a minimum social group of three females. In Amboseli, females and calves live in an average family size of 18.7 individuals (range 2-52) and on average a female will experience, on a daily basis, a group size of 20 individuals (including independent males), with a range up to 550 elephants. Six percent of groups contain more than 100 individuals. Elephants are able to discriminate between the voices of at least 100 other adults. Social networking is a predominant and essential aspect of an elephant’s daily life.

In captivity, elephants are frequently taken from the individuals with whom they are bonded, to be exchanged with elephants from other institutions. In Amboseli, over three decades, there has been only one case of a female permanently leaving her family to join another family.

The AZA allows males to be housed alone after six years of age and many males spend a life of solitude. In the wild, young adult males under 20 years old spend more than 70% of their time in association with family groups and are observed alone less than 5% of the time. Large adult males over 35 years old spend half of their time in the company of other males, 25% in the company of females and only 25% of their time alone – most often while searching for receptive females.

In Amboseli, where elephants grow up in a nurturing social environment, have the freedom to move, and autonomy over their own lives, elephants do not develop foot or weight problems (zero cases out of 2,200 elephants); they are not seen swaying rhythmically back and forth or showing other neurotic behavior (zero incidents in over 34,000 sightings of

groups containing 1-550 elephants); they do not have difficulties conceiving (only two cases of infertility out of 558 females over 10 years old); they do not reject or kill their own infants (zero cases out > 1500 births) and they do not attack and kill the individuals with whom they are bonded (zero cases).

In captivity, confined in small spaces, in cold places, behind bars, on concrete floors, in barns, on trains, in trucks, on chains, moved with electric prods and bullhooks and kept in socially deprived conditions, elephants become dysfunctional, unhealthy, depressed, and aggressive. Inactivity leads not only to obesity, but also to foot diseases, joint problems, and arthritis. Female zoo elephants are 31-72% heavier than their wild counterparts. Yesterday I visited the two elephants at Brookfield Zoo and noticed that one very overweight female in her prime could barely walk due to painfully stiff front legs. Infertility, maternal rejection, maternal infanticide, high infant mortality, hyper-aggression are all common problems in captivity. Degraded by a life of tension and punishment many captive elephants have inflicted deliberate injury and even death on elephant keepers.

Our long-term behavioral research on wild elephants indicates that these large, highly social and intelligent animals require ample, environmentally complex space, and a sufficient number of other elephants for social contact and learning. It points to the fact that we should be moving toward a position in which only captive situations with space allowing individuals to choose among a wide selection of social partners, and to maintain physical and psychological well being, are permitted to keep elephants. It indicates that all elephants, including males, should be allowed access to social partners. It recommends that males should remain in the company of their families until the age of natural dispersal, while closely related or closely bonded females should stay together for life. Elephant behavior shows us that infants and calves should not be removed from the care of their mothers and family members. It points clearly to the fact that the tradition of removing females or youngsters from their social group for the purpose of exchange with other zoos or circuses should cease, and that the parallel practice of abducting infant elephants from their families in the wild to send to circuses, zoos, or safari parks must also stop.

It emphasizes that all forms of physical discipline and punishment must be discontinued and that chaining should stop unless absolutely necessary for veterinary care. It is clear on the

basis of all these criteria that circuses are not an appropriate environment for elephants, and that most zoos will have to make substantial changes to meet elephants' most basic needs.

The majority of managers will say that what I am recommending is not realistic – and they are correct – unless, that is, we accept to transform the space in which elephants are kept. To do this we must revolutionize our concept of a zoo. Once we accept this fundamental change, then I believe that current elephant health, reproductive and management problems will disappear.

Zoo professionals have often discussed - but have rarely acted upon in a meaningful way - the need to provide captive elephants with ample, environmentally complex space and a sufficient number of other elephants for social contact and learning. The Chicago City Council is to be commended for beginning to consider the basic needs of these extraordinary animals.