



adfoot, a Brazilian ocelot at the Phoenix Zoo, loves to roll around in perfume. His delighted keepers think his behavior is absolutely appropriate. In fact, it's all part of a fascinating branch of zoo management called behavioral enrichment. In addition to encouraging mental health for animals, it's great fun for visitors.

According to Hilda Tresz, Behavioral Management Coordinator at the zoo, the enrichment program elicits and promotes species-appropriate behavior in captive animals. Enrichment takes many forms including novelty food, toys, training, and even something simple such as adding dried leaves to an exhibit to change the substrate.

The idea is to mimic a natural environment and/or engage as many of the senses as possible. Padfoot's keepers aren't certain why he likes to cover himself with perfume (he is not particular about the brand), but he also enjoys spices such as cinnamon, garlic and butter extract. Italian Seasoning is another favorite. Padfoot's caretakers



keep detailed notes on his preferences.

Hilda Tresz shares her philosophy: "After food and shelter, behavior enrichment is the single most important concern with captive animals."

Scared or bored animals sometimes over groom, pace, or chew on the fence, and all of these behaviors can

PHOTO LEFT. COURTESY OF KATT REYNOLDS. PHOTO RIGHT. PHOENIX ZOO

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lead to medical problems. Behavioral enrichment grants these marvelous animals the chance to use their intelligence. Improved health follows.

Within the behavioral enrichment program, Tresz and the staff encourage use of all five senses (well . . . four senses in the case of all birds except vultures, who can smell). For example, a sharp-eyed volunteer noted aggressive tendencies in several roosters, and so the staff raked up dry leaves, put them in a pile, and scattered mealworms throughout. The birds couldn't actually see the mealworms, but they could hear them, and they used their sense of hearing to locate the worms. They also saw and touched the leaves and tasted the mealworms. Bingo-all four senses engaged.

Many enrichment tools are simple.

Camille, a cougar, loves to play with her boomer ball (a plastic, hollow sphere that can be filled with pebbles or treats). Bears love hitting piñatas and extracting the presents inside. Elephants enjoy painting pictures with their trunks, and some coatis go wild for the aroma of rosemary or basil. Each day the rhinos find a new log pile in their exhibit, and each day they knock it down—endless fun.

The Phoenix Zoo takes pride in promoting the mental well being of its animals. Take, for example, the cases of Indu, Reba, and Sheena, three elephants currently residing at the zoo. All three arrived from other organizations, and each had behavioral and/or health problems. Zoo staff wanted to return the elephants' dignity by controlling them less. They wanted to offer choices

to these highly intelligent animals, and enrichment is all about choice.

So the staff studied the behavior of wild elephants and learned that basic conduct consisted mostly of walking and eating, with the occasional roll in the dust and subsequent bath. Management spotted several problems. First, the elephants were fed daily in a metal pan on the ground, and they usually finished breakfast in an hour or two—far faster than wild animals eat. Also they weren't getting enough exercise.

The behavioral committee set about looking for ways to extend foraging time to something more closely approximating the hours spent browsing in the wild. The metal pans were tossed out and all ground feeding ended. Zoo personnel added electric feeders. These electronic food-dispensing devices can be elevated up or down to mimic reality

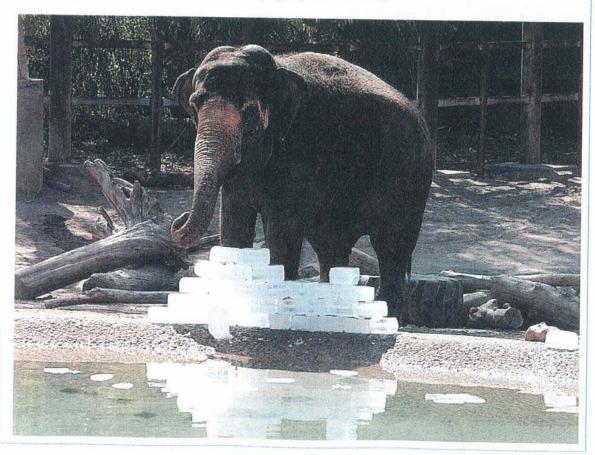
in the wild, where an elephant has to lift his trunk high enough to grab food.

Zookeepers trained the animals to walk across the exhibit in exchange for a trunkful of hay. Indu, Reba, and Sheena learned to check multiple feeders, since not every container was filled each day. The result was more exercise because they had to stroll around the enclosure to forage. With close observation and meticulous documentation, the staff proved an increase of overall foraging time by about forty percent.

Another problem was undue swaying.

Swaying for an elephant can, in fact, be natural behavior when it is done to increase blood flow. Since an elephant's heart is so far from the legs, it will often sway to promote circulation. However, if an elephant is nervous or angry, and if the swaying is paired with other

The elephants are healthier now. They have enough shade and several escape corners for privacy. They have a pool. They have choices.



COURTENY OF BOB FISCHER





conduct such as head-bobbing, swaying can be a sign of anxiety. Swaying becomes aberrant if it is extended, repeated, and predictable. For example, if an elephant always sways when it goes on exhibit, that's an indication of emotional trouble. These elephants showed great anxiety when they arrived.

Zookeepers re-designed the interior of the exhibit. A two-foot layer of sand replaced the concrete that was unhealthy for the elephants' feet. Staff added a wallow and a shower that can be operated by the elephants at their own convenience. They provided sandstone boulders to allow shoulder rubbing with natural material.

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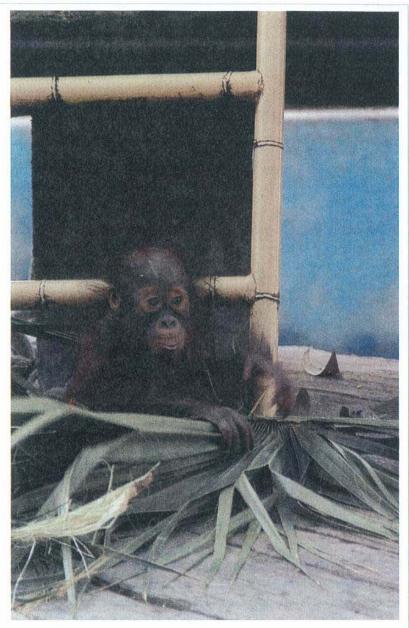
They have choices.

"Enrichment changed their entire lives," says Tresz. "They move more and sway less."

Each animal gets the same thoughtful respect. The commissary prepares food each day and freezes blood from the meat. In summer, lions, tigers, and jaguars get bloodsicles (like a popsicle but made of blood), which they stuff into their cheek pouches to suck.

Each summer, the Phoenix Zoo





sponsors snow day. A storm of white stuff is blown into enclosures, and visitors can watch the animals frolic and cool off under the Arizona sun. Bears have been spotted somersaulting in the snow.

Training enriches, too. It's been shown that animals often choose to work for food in preference to being given meals. Lucy the Goose earns meals by extracting lettuce from a clothesline when hungry.

A zoo can't always provide lots of space, but the staff at the Phoenix Zoo is passionate about offering their animals something they would get in the wild — choices.

And maybe a chance to roll around in perfume.

KATE REYNOLDS is co-author of the fifth edition of The Insiders' Guide to Phoenix

## if you go

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