

METROZOO

MIAMI



SCIENCE

New Zoos—Homes on the Range

Three young condors ride the thermals over the Peruvian Andes. They skim the peaks and roost on the cliffs as expertly as the rest of the species, and their squawks reveal not a trace of a New York accent—although they were born there, 3,000 miles to the north, in the Bronx Zoo. After hatching, keepers fed them using life-size hand puppets of adult condors, thus ensuring that the birds would not associate food with humans and refuse to scavenge for themselves in the wild. Last year the zoo set the condors free, giving this endangered species a tentative clawhold on surviving in the wild.

Zoos that set animals *free*? Until fairly recently, that notion would have seemed almost as wild as a zoo that puts people in cages. But both the layout and the purpose of the nation's zoos are being dramatically transformed. Gone, or at least going, are the inner-city animal slums where dazed beasts huddle in tiny cells, for the new zoos try to approximate the open conditions of the wild. Fading, too, is the belief that zoos exist only to delight or instruct the humans who visit them. Modern zoo keepers see their main mission as protecting the animal world. "We are assuming custody of endangered species," says Kurt Benirschke of the San Diego Zoological Society. "Zoos are the last bastion for the propagation of exotic species, and if we don't help, then a lot of animals won't make it through the twentieth century."

Football Field: England's Whipsnade Park became the prototype for open-range exhibits in 1932, and now "zoographic" displays that simulate an animal's home and companions are becoming the rule. This month—just in time for Zoo and Aquarium Month in June—Chicago's Brookfield Zoo opened Tropic World, which contains twenty species from the African rain forest in a building one-and-a-half times the size of a football field. On a smaller scale, the Bengal tigers at Miami's new \$32 million Metrozoo roam a replica of a thirteenth-century shrine at Angkor Wat. Exhibits like these cater to zoo goers who grew up on National Geographic and expect to see animals behaving as they would in the wild—courting, raising families and foraging amidst the vegetation. Bringing a touch of reality to captivity seems to get people more involved with the creatures, too—and once zoos have tugged at their visitors' heartstrings, they can more easily get them to listen to pleas on behalf of disappearing wildlife.

Not all the captive animals have moved into this brave new world. Most inner-city zoos have neither the money nor the space



Metrozoo tiger: Life is better without bars

Flip & Debra Schulke—Black Star

to raze their cages and put animals in open fields. Consequently, while the snow monkeys in the Minnesota Zoological Gardens frolic near 10 miles of cross-country ski trails, their city cousins in New York's antiquated Central Park Zoo neurotically pick their fur all day. Perhaps the zoo keeper's most egregious crime against animals was the stamp-collecting approach to zoo management: keeping one or two of as many species as possible. Although the public may have liked the variety, most animals need the company of their own kind in order to lead anything like normal lives. Zoo keepers thus are abandoning the Noah's ark philosophy of housing two of everything they can catch. The Bronx Zoo, for example, had 5,163 animals of 1,160 species in 1910; today it has some 3,588 individuals of 552 species.

Although it isn't finished yet, Miami's 260-acre Metrozoo typifies the home-away-from-home atmosphere of the best new zoos. Keepers there are reconstructing Eurasian steppes, Asian jungles and African veldts, and will eventually move more than 65 species outside. Each of the 41 barless displays, either an island or peninsula, is dotted with rocks, caves, trees, pools and climbing ropes. For the most part, the keepers are exhibiting animals adapted to the local climate. "I can guarantee you that we're not going to get a polar bear," says curator Bill Zeigler. Crocodiles are more cut out for Miami, and last September the breeding pools produced seventeen hatchlings of the rare Siamese croc, the only ones born in captivity in this hemisphere.

Other zoos have neither the space nor the climate of Miami, so instead of taking the animals outside, they move the outside in.

Inside its huge building, Tropic World at Brookfield is a rain forest in miniature. Visitors wander along a rough trail gutted with tire tracks and hedged by bamboo; there are cliffs above and a valley dotted with pools below. Sometimes the people are happier about the back-to-nature look than animals such as Brookfield's gorillas, who at first refused to leave their cages. Even the colobus monkeys, who loved the wild look, had a hard time adjusting. Many had

Their back-to-nature look stimulates breeding and pleases the animals almost as much as the people.

never seen a tree, much less swung from one, and when they started leaping from tree to tree, they missed the branches and crashed 50 feet to the ground. "They were like athletes who had been off training for years and were without muscle tone or coordination," says Brookfield vet Janice Ott. (After a few hours the colobus got into the swing of things.)

The monkeys' trouble points up one hard-to-conceal fact about the new zoos: they are not always replicating the natural homes of their animals. Brookfield's bamboo is actually steel and cement, and its vines are ropes dunked in epoxy and twisted to resemble the real thing. The San Antonio Zoo trimmed its oak trees to mimic flat-topped acacias in the

cheetah exhibit, and a "tree" that periodically oozes honey in the Kodiak bear display at the Bronx Zoo is man made.

The false naturalism indicates that show business is as important to zoos as conservation. And Dr. Theodore Reed, a veterinarian who is curator of the National Zoo in Washington, argues that the natural look is more for people-pleasing than animal comfort. "A monkey doesn't care if he has a tree or a gymnasium, as long as he can swing," says Reed. "If an exhibit is too naturalistic, animals will do what they do in the wild—hide." But a certain amount of naturalism can produce surprising results. Some of the inhabitants of San Diego's Wild Animal Park have so taken to their companions and their surroundings that they have resumed social habits forgotten in captivity. Wildebeests set up a nocturnal sentry system to warn the 40-member herd of danger from predators (no zoo, of course, takes the ultimate step in naturalism of mixing predator and prey). At sunrise, migratory animals move away from the northern perimeter of their enclosure and saunter south, and male antelopes who have collected harems fight to keep trespassers off their territory.

The sign of a successful zoo is a high rate of reproduction among its animals, and by that measure the new zoos are veritable rabbit warrens. When Mandhla, a childless white rhino at the San Diego Zoo, was transferred after ten years to the open plains of the San Diego Wild Animal Park, he immediately impregnated his longtime companion and, soon, every one of the fourteen new females he met. Today he is the father of 43. Other denizens of the park have been equally fecund. In ten years, 89 percent of the species, including 17 of 25 endan-

Giraffes and friends mingle with visitors to San Diego's Wild Animal Park: Abandoning the Noah's ark approach

Lester Sloan—NEWSWEEK





Flip and Debra Schulke—Black Star

Gorilla ignores the crowd at Miami Metrozoo: 'I can guarantee you that we're not going to get a polar bear'

gered ones, have reproduced. Such success comes none too soon, for at least one species or subspecies becomes extinct every year—compared to one every 1,000 years in prehistoric times.

Inexperienced Females: Sometimes it takes more than animal liberation to spur breeding, so keepers study the personalities and physiologies of their captives. When veterinarians at the Bronx Zoo discovered that cheetahs who lived together treated each other more as friends than as lovers, they separated the cats. Absence did indeed make their hearts grow fonder and now the cheetahs are breeding regularly. When Joe Laszlo of the San Antonio Zoo realized that some reptiles need to hibernate before they can breed, he came up with an ideal solution for the hot Texas climate: he popped them in a soda cooler. The result: he midwived the first births in captivity of Malayan water monitors, a type of lizard. At the San Diego Wild Animal Park, keepers give inexperienced females lessons in motherhood. When Dolly, a gorilla who abandoned her firstborn to die, conceived again, keepers showed her films of other baby gorillas with their mothers; they also gave her a stuffed toy and taught her how to cradle it and pick it up gently. Later, when Binti was born, Dolly was a perfect mother.

Breeding has become so important to zoos that the New York Zoological Society, in cooperation with the Noble Foundation, has taken over an entire island devoted to turning young animals' fancies to love. At St. Catherines Island, just off the coast of Georgia, keepers don't have to worry about exhibiting creatures at the same time they're trying to get them

to mate. For seven years the island has been a breeding facility for endangered animals and birds. Birds are notoriously difficult to breed because it's not always obvious which are males and which are females. But with laparoscopy, a micro-surgical technique that delicately probes for testes and ovaries, matchmakers are getting birds of the right feather to flock together. (Among the first young produced when curators matched the correct sexes at the Bronx Zoo were two Lady Ross's violet touracos and two lilac-breasted rollers.)

Mating Season: To breed maleos, perhaps the rarest birds in the world, St. Catherines bird curator Al Valenzuela prepares a soft bed of warm dark sand in the back of

their cages. This, he hopes, will stir atavistic memories of the lava beaches on which their ancestors laid eggs. He also makes sure the female birds select their own mates. "The male will breed with anyone," he explains. "It's the female who chooses." To convince cockatoos that springtime—and hence mating season—has arrived, Valenzuela plants rye and oat seeds in the grasses at the bottom of their pens. Sometimes, for determinedly celibate birds like one female crane, Valenzuela resorts to drastic measures. Because the crane was raised in captivity, she "imprinted" on humans and therefore has not been interested in performing a ritual mating dance with a male crane. Vows Valenzuela: "I'll dance with her myself and artificially inseminate her."

Valenzuela with crane: Shall we dance?

Robert R. McElroy—NEWSWEEK



Artificial insemination may be the only recourse for the animal world's most notorious celibates: the pandas at the National Zoo. This spring, during an hour-long tryst on a hillside, Hsing-Hsing and his shy companion Ling-Ling tried to mate again, just as they have every year since 1977. He embraced her in something resembling the proper mating posture but, says zoo official Robert Hoage, "we did not see a proper copulation." Finally, the keepers gave up and inseminated Ling-Ling artificially. They won't know if she is pregnant until the five-month gestation period is nearly over, since the only clue to impending motherhood is enlarged nipples a few days before giving birth. The fetus itself doesn't make even a bulge in the womb: a baby panda weighs less than 4 ounces and the mother weighs 250 pounds.

Breeding animals, particularly endangered ones, often means sending them from zoo to zoo for blind dates

that may or may not work. "There's no guarantee that an animal will like a prospective mate you've shipped halfway around the world," says physiologist Barbara Durrant of the San Diego Wild Animal Park. Some zoos are beginning to freeze and transport semen; once they learn how to do it routinely, they hope to ship the semen and keep their animals home. The ark of the future may well be a sperm bank; already four or five sites, including the Bronx and Cincinnati zoos, have been selected to freeze tomorrow's generations in liquid nitrogen.

Surrogate Mother: The newest breeding technique is embryo transfer, where embryos conceived in one female are surgically removed and implanted in the uterus of a surrogate mother. That frees the natural mother for another mating, thus increasing the number of offspring she can produce. Last year scientists at the Bronx Zoo successfully transferred an embryo from a gaur, a rare species of cattle, into a Holstein cow. Ten months later Manhar was born; meanwhile, his biological mother had conceived again. Zoo researchers now hope to transfer embryos of the critically endangered Arabian oryx into gemsbok (both animals resemble gazelles). And a few weeks ago embryos from African elands were placed in ten Holstein cows at the Cincinnati Zoo.

A major problem in breeding endangered species is that the animals' genetic stock has been depleted. Zoos mating closely related lemurs have produced offspring with funnel chests and no hair. "By inbreeding, you're losing genetic material all the time," says John Lukas of St. Catherines Island. "But you don't know what you're selecting out. It might be something as simple as what grasses [animals] eat, but it might be resistance to disease." One study at Washington's National Zoo found that in 90 percent of inbreedings, the progeny had a high mortality rate and a low fertility rate. For example, 75 percent of the mandarin ducks born at the zoo's research center were dy-

Lester Sloan—NEWSWEEK



ing; no new ducks had been introduced to the flock since 1966. Curator Guy Greenwell crossed some of the flock with ducks borrowed from San Diego that had been imported from China. The result: 87 percent of the chicks produced by crossbreeding survived.

In 1973, 150 zoos around the world established the International Species Inventory System (ISIS)—a kind of studbook that serves as a computerized dating service for endangered breeds. It stores information on 51,000 birds and mammals and their ancestors. Recently, ISIS played matchmaker for the okapi, an African mammal related to the giraffe (only a few hundred remain in the wild). To prevent inbreeding among the sixteen okapis in American zoos, ISIS located two unrelated okapis in European zoos for mating here. ISIS will become even more important as extinctions continue, since zoos will have no wild stock to draw from.

Ideally, zoos should be holding pens for animals until one day the creatures can return to the wild—or at least the pseudo-



Jim Pozarik

Hammerhead bat, orangutan, snow leopards, koala: As the wilderness withers, animals may be grateful for bed and board at a zoo

Jeff Lowenthal—NEWSWEEK



wild. A Texan named Tom Mantzel, who collects exotic species as other oil magnates do Ming vases, has an arrangement with several zoos to breed their animals on his 1,500-acre ranch. The 700 who live there now have formed the closest thing to an African wildlife refuge this side of the Atlantic. Animals like the addax, sable antelope and blackbuck antelope actually seem to be surviving better in Texas than in their native lands: there are only 4,000 blackbuck antelope left in Pakistan, for instance, but an estimated 10,000 in Texas.

Block: Many endangered species have a better chance of surviving in the wild if they are first built up into large herds at a single zoo. "The odds on animals doing well and staying together are much better than if we took two from this zoo and two from that," says Lukas, "because they have already worked out their social hierarchy." The Arabian oryx, whose last herds were run down a decade ago, has a chance in the wild because of the conscientious program of the San Diego Park. On New Year's Day seven of the frail creatures were returned to Oman, where the Sultan has made the Bedouins promise not to shoot them. Exacting similar promises is one stumbling block to returning species to their ancestral homes. "You may succeed in breeding exotic animals," says Patrick Burchfield of the Gladys Porter Zoo in Brownsville, Texas. "But it still boils down to where do you put your gorilla if they still eat them where he came from."

The Andean condors don't have to worry about that, for they were slipped into the Andes where so few exist now that they aren't worth hunting. But the condors' habitat is exceptional; more often, there is no wild for the animals to return to. Zoos and zoo visitors may eventually see a day when wild animals will cease to be wild, when some species will exist only in captivity—if at all. Even for realists who believe that confining animals is preferable to letting them disappear forever, it is a sobering vision.

SHARON BEGLEY with HOLLY MORRIS in Miami, JANET HUCK in San Diego, DONNA FOOTE in Chicago, STEPHANIE RUSSELL in San Antonio and bureau reports Douglas Kirkland—Contact



Have a wild time!



Your day at Metrozoo was 10 years in the making.

In 1972, the voters of Metropolitan Dade County approved a concept originated by the Zoological Society of Florida: A large, cageless zoo, where exotic animals could live and breed as freely and comfortably as in nature. Today, this plan is a reality. Although less than half its final size, Metrozoo is already one of the largest zoos in the country. Years of painstaking work by the artists and animal curators who make up the zoo staff—on everything from ceramic signs to realistic animal habitats to steel rebar and gunite “rocks” and “trees”—have made Metrozoo one of the most innovative zoos in the world. We hope you enjoy the results in your visit today.

How to see a cageless zoo.

At Metrozoo, there are no bars or cages. Only moats separate the people from the wildlife. Here, you don't see tigers pacing behind bars; you see them racing across the grass or dozing under a ficus tree. When animals live in the open, with sky above, ground below, and the natural world all around, their behavior becomes more natural—and more varied. So please take five or ten minutes to get

in touch with nature. Adjust your viewing to the animals' natural lifestyle. If they're resting in a cave or hiding behind high brush, wait a while or come back later. That way, you can be sure you won't miss anything.

What to see between animals.

You'll enjoy watching our animals behave as they do in the wild. But that's not all there is to enjoy here. There's the Flying Free Bird Show in our amphitheater and zookeeper presentations in Sulawesi, our Malayan village. And the Puppet Theater in the Zebrazaar. Check the signs at each place and at the information booth to see what's taking place and when.

How to get around a zoo as big as this one.

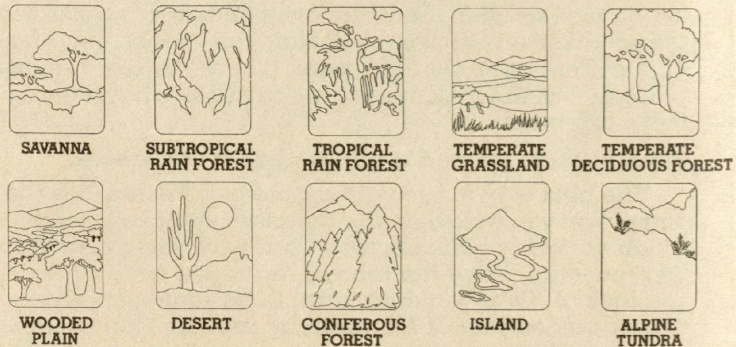
The best way to see wild animals in Metrozoo is the same way you would on the Eurasian steppes or at an Asian watering hole: On foot. That way, you can set your own pace and take the time to really see each animal you look at. Or if you don't want to be your own guide, take a guided tour of Metrozoo by tram or, this summer, by air-conditioned monorail.



How to read our pictographs.

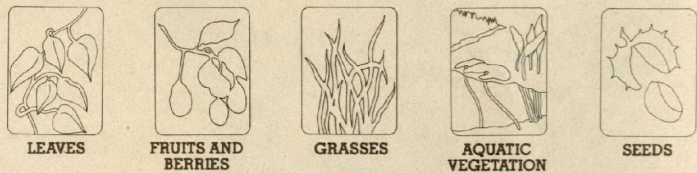
Metrozoo's hand-crafted, ceramic pictographs were designed by staff artists. Take a look at them before you see the animals in each display. They'll show you what you need to know about our animals – even if you don't read a word they say. Through visual interpretive symbols, they describe where each animal lives, what it eats, what time of day it's most active, and the survival status of its species.

HABITAT: a place where animals live that has its own climate, vegetation, characteristics, and geographic features.

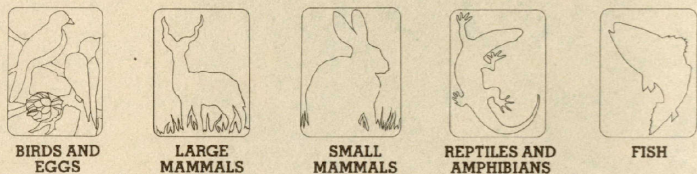


WILD DIET: what animals regularly eat.

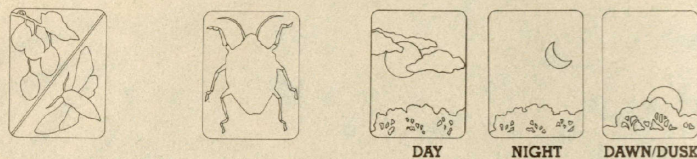
HERBIVORES eat plants.



CARNIVORES eat animals.



OMNIVORE **INSECTIVORE** **ACTIVITY TIME**



SPECIES SURVIVAL STATUS: These symbols show an animal species' need for protection against extinction.



1. Entrance
2. Information
3. Security
4. First Aid
5. Bengal tiger
6. Zebrazaar
7. Siamang
8. Gibbon
9. Orangutan
10. Malayan sun bear
11. Sambar deer
12. Siamese crocodile
13. Malayan tapir
14. Free-flight aviary
15. Sulawesi
16. Elephant
17. Nilgai

18. Rhinoceros
19. African lion
20. Cape buffalo
21. Sitatunga
22. Spotted hyena
23. Himalayan bear
24. Himalayan tahr
25. Aoudad
26. Camel
27. Sable antelope
28. European brown bear

29. Red deer
30. European Wisent
31. Fallow deer
32. Forest buffalo
33. Mandrill
34. Overlook

35. Pygmy hippopotamus
36. Chimpanzee
37. Grevy's zebra
38. Gorilla
39. Defassa waterbuck
40. Africa Overlook

41. Yellow-backed duiker
42. Maxwell's duiker
43. Baird's tapir
44. Kangaroo
45. Giant land tortoise
46. Amphitheatre
47. Ring-tailed lemur

48. Blackbuck
49. Grant's zebra
50. White-bearded gnu
51. Siberian ibex
52. Plant shop
53. Exit

F = Food and drink
G = Gift shop
R = Restroom/Water fountain
T = Tram station

METRO
ZOO

If you've seen Metrozoo once, you haven't seen it all.

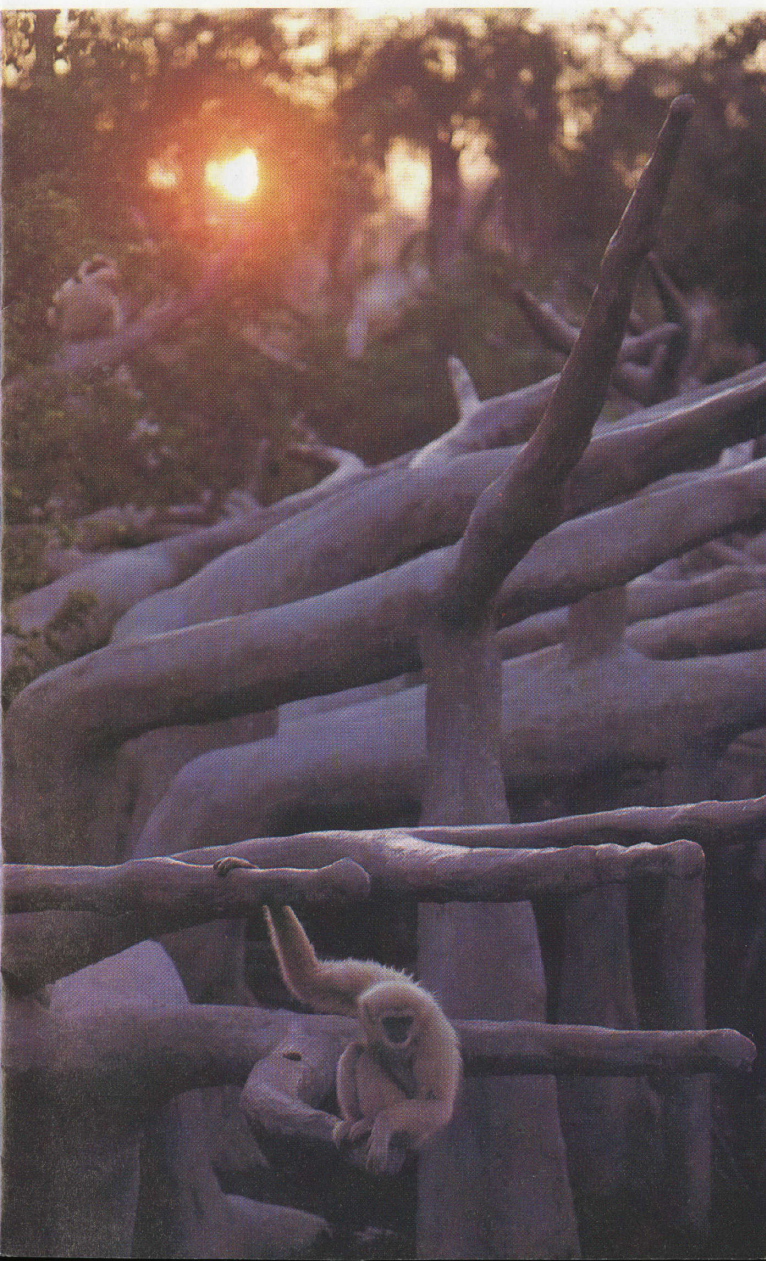
Not only the animals in Metrozoo are growing and changing every day; so is Metrozoo itself. With America's largest free-flight aviary, almost 2 acres in area and 65 feet high, and the introduction of our air-conditioned monorail, both scheduled for completion later in 1982. With the opening of our African exhibits, which will add 100 acres of veldt, desert, and jungle to Metrozoo, in 1983. With the visit of Ramar the Gorilla from our grand opening through 1984, and the arrival of our resident gorillas. And with the breeding of endangered species for the future. In 1978, the first captive birth of a Siamese crocodile in the Western Hemisphere took place at Metrozoo. In 1980, five Orinoco crocodiles born here were the first captive births in the country. So we do hope your visit today is the first of many. And that with each new visit, you'll have a wilder and wilder time.



Metrozoo, a division of the Metro-Dade Park and Recreation Department.



METROZOO MIAMI FLORIDA



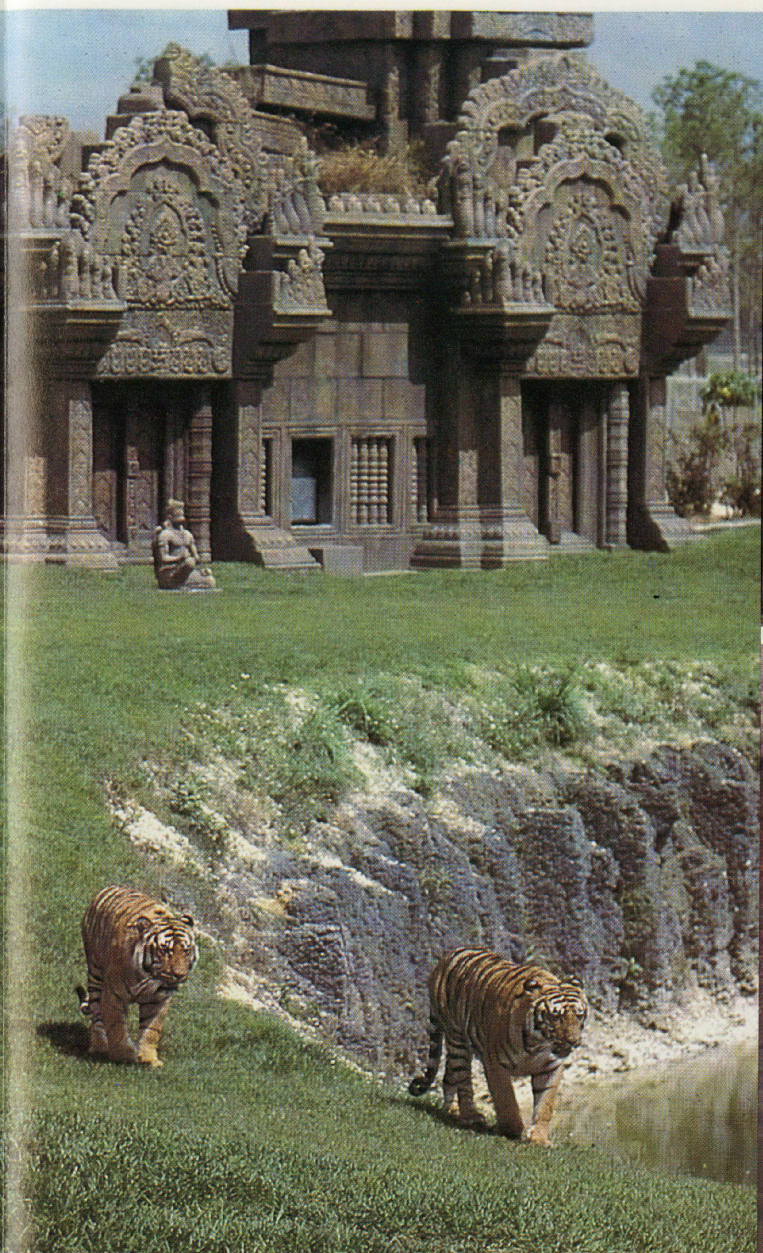
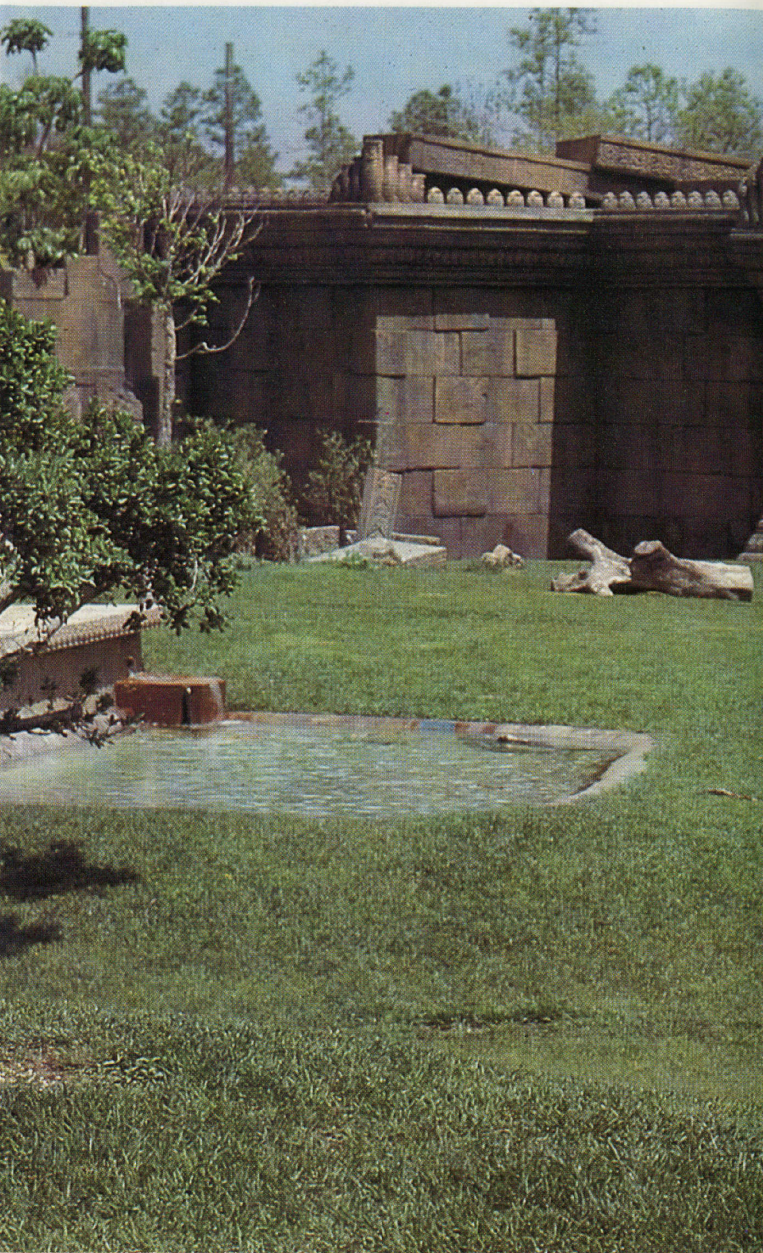
One of the world's great zoos has come to one of the world's great cities.

The jungles of Africa, the steppes of Asia, the forests of Europe have come to Miami, Florida. And in them roam hundreds of untamed, exotic animals. Freely. Naturally. As if they were still in their native lands.

In Metrozoo, the animals are uncaged.

There are no steel bars, no barriers at all between you and them. Only moats separate the people and the wildlife.

You see and hear all the animals as closely, as clearly, as if you were to suddenly come upon them on some remote jungle trail or Asian plain.



The habitat is natural.

Each section of Metrozoo is designed to resemble the terrain and the vegetation of each animal's homeland.



Bengal tigers prowl the ruins of a temple that exactly duplicates one discovered deep in the jungles of Asia.

Acrobatic orangutans caper in trees just like those that grow in Borneo and Sumatra.

Kangaroos bound over terrain that bears an uncanny resemblance to the Australian outback.

The Bengal tigers, gibbons, kangaroos, orangutans, zebras, lions, Malayan sun bears, giraffes, elephants, rhinos, and hundreds of

other animals at Metrozoo are not only free, but also as healthy, contented, and lively as in the wild.

They're a sight nobody in Florida should miss seeing.



You'll have a wild time!

Few zoos in the world can compare to Metrozoo. None combines the open-space feeling of the wilderness with spectacular man-made features that create the romance and excitement of your own one-day personal safari.

And if you don't want to be your own guide, you can take a guided tour on Metrozoo's tram or, this summer, by air-conditioned monorail.

In between animals, you can enjoy the free-flight bird show in our amphitheater; the Ecology Theater in Sulawesi, our Malayan village; and the Puppet Theater in our Zebrazaar.

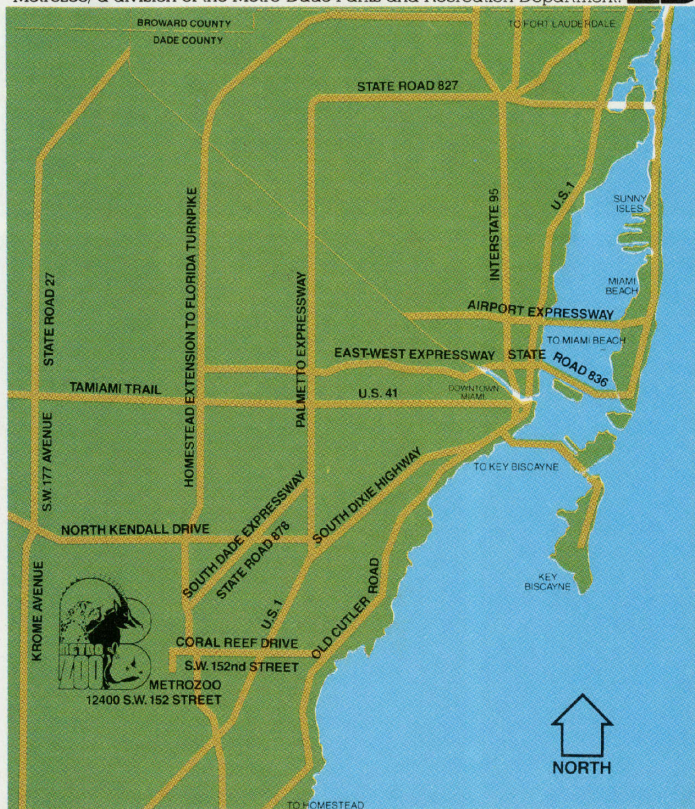
Camera supplies, souvenirs, and refreshments are all available at reasonable prices.

Visit Metrozoo at Coral Reef Drive (S.W. 152nd St.) and S.W. 124th Ave. in Miami, west of the Turnpike exit. We're open every day from 10AM to 4PM. For information, call (305) 251-0400.

There are so many things to see in Miami. Now Metrozoo belongs at the top of the list.

Metrozoo, a division of the Metro-Dade Parks and Recreation Department.

METRO-DADE



PROJECT

Gorilla Gorilla Gorilla

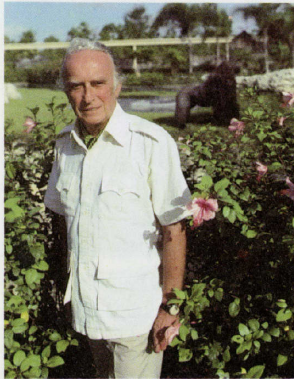


HOOVER ANIMAL FUND

Post Office Box 54-6705, Surfside, Florida 33154

Herbert W. Hoover, Jr., internationally known conservationist is shown here at Dade County's METROZOO with its star gorilla, Ramar.

Always a community leader, Hoover is now



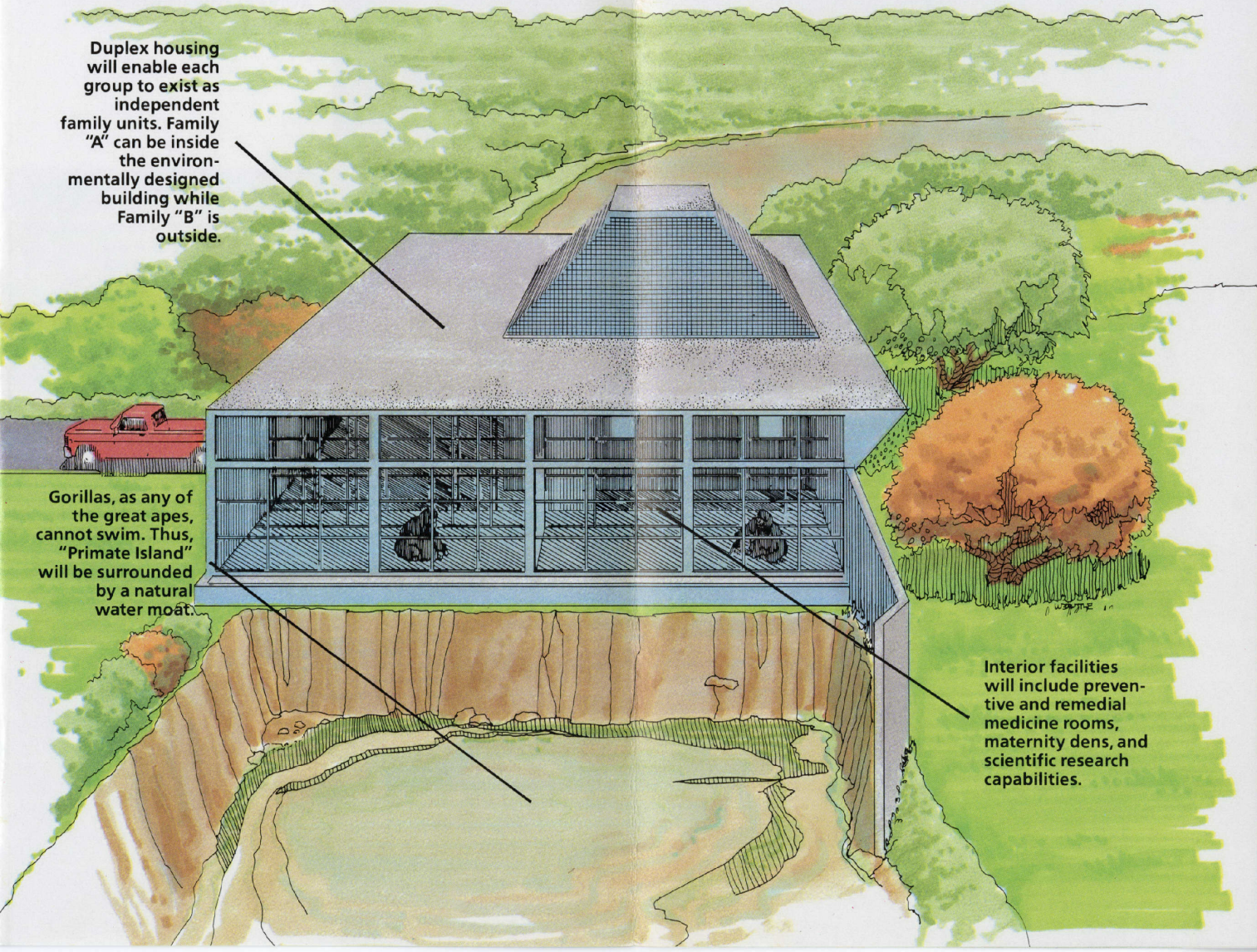
focusing his energies on a project to develop Primate Island at the zoo. His Hoover Animal Fund is pledged to raise up to \$500,000 for construction of housing facilities on the 2½ acre site. The facility will house two families of

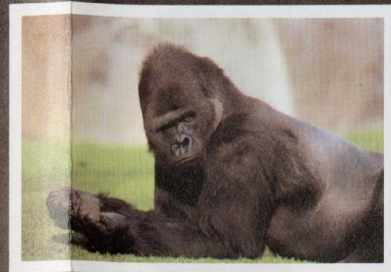
lowland gorillas (*Gorilla gorilla gorilla*) which will form the nucleus of a scientifically controlled breeding program for this endangered species.

Duplex housing will enable each group to exist as independent family units. Family "A" can be inside the environmentally designed building while Family "B" is outside.

Gorillas, as any of the great apes, cannot swim. Thus, "Primate Island" will be surrounded by a natural water moat.

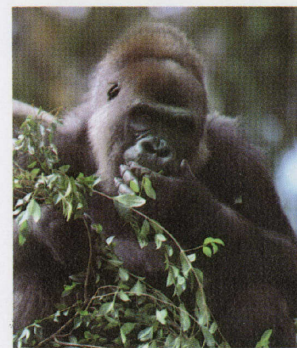
Interior facilities will include preventive and remedial medicine rooms, maternity dens, and scientific research capabilities.





Though the gorilla is the largest of the ape species, its continued survival in the wild is in serious jeopardy.

Classified "endangered" by the International Union for the Conservation of Nature, it is estimated that there are less than 10,000 of these magnificent animals living in their natural habitat today.



Captive breeding may well be their only chance

for survival. "Project Gorilla" has been established for the express purpose of the preservation and propagation of this species.

All elements of South Florida's climate (temperature, humidity, precipitation and altitude) are most favorable for such a program. Two families of gorillas, will inhabit the island.



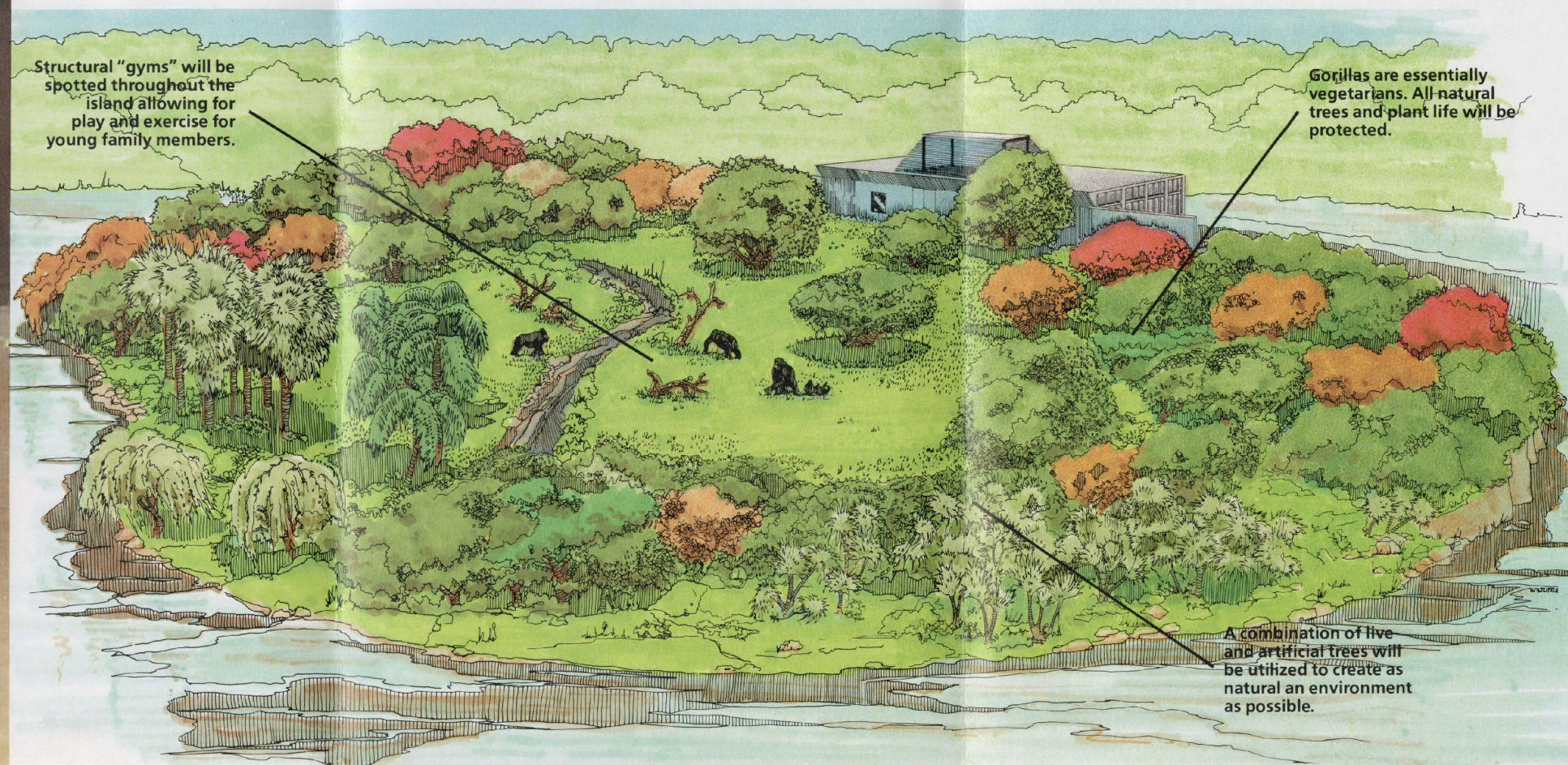
The Hoover Animal Fund intends to make "Project Gorilla" a total community participation project. It is a positive project, one which will benefit you, your children and generations to come.

Your support will help us achieve many important goals:

- The involvement of the community in a "happy" project
- The preservation and propagation of a seriously endangered species of wildlife
- Establishment of a world center for the study and breeding of gorillas.



Structural "gyms" will be spotted throughout the island allowing for play and exercise for young family members.



Gorillas are essentially vegetarians. All natural trees and plant life will be protected.

A combination of live and artificial trees will be utilized to create as natural an environment as possible.



METROZOO Director Robert M. Yokel (right) reviews the "Primate Island" concept with Herbert W. Hoover, Jr., President of the Hoover Animal Fund.

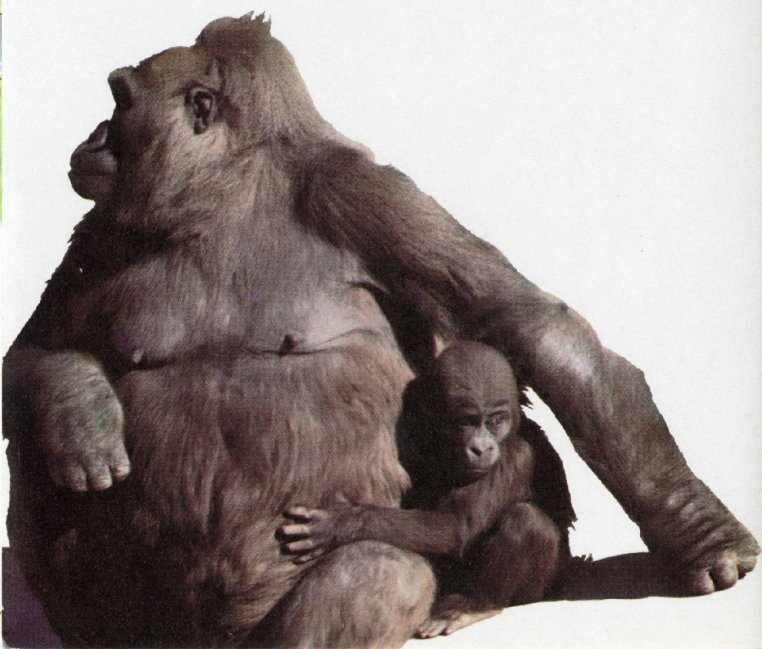
Your support of the Hoover Animal Fund in its efforts on behalf of "Project Gorilla" will help us bring to the Dade County community an extremely worthwhile addition to our great new METROZOO.

Your tax deductible contribution will provide you, your family and your friends with a continuing source of entertainment, education and recreation.

Please fill out the enclosed card and mail it with your contribution to Hoover Animal Fund.

HOOVER ANIMAL FUND

Post Office Box 54-6705, Surfside, Florida 33154



Contact: Kate Zwerin
(305) 251-0403



THE NEW ZOO IN TOWN

Miami has palm trees and beaches and tropical weather, and now it also has a world-class zoo. Metrozoo opened in December, 1981, and already ranks as one of the finest and most popular zoos anywhere.

Metrozoo is cageless. The animals live on islands surrounded by moats, in an open environment that transforms the zoo experience. At Metrozoo, you don't see a tiger pacing behind bars; you see him sprinting across the grass or sleeping beneath a ficus tree -- behaving naturally, as if he were still in the wild.

Metrozoo's unique design, from the overall concept of moated exhibits to the detailed sculptural work on each exhibit sign, gracefully combines education and entertainment. Among the zoo's many special features are a colorful replica of a Malayan village that houses an animal contact area, a monorail tour throughout the 185-acre park, a lakefront restaurant and observation deck, and three different free animal shows every day.

Metrozoo is located at 12400 S.W. 152nd Street (Coral Reef Drive), just west of the Florida Turnpike exit. It's open every day of the year, from 10:00 a.m. to 5:30 p.m., with the ticket windows closing at 4:00.

--END--

12400 S.W. 152 Street
Miami, Florida 33177

Telephone (305) 251-0401

Contact: Kate Zwerin
(305) 251-0403

December 4, 1982



METROZOO FACTS

- DESCRIPTION:** The Miami Metrozoo is a progressive new, cageless zoo, where animals roam free on island surrounded by moats, in surroundings that closely resemble their natural habitats.
- LOCATION:** 12400 S.W. 152nd Street (Coral Reef Drive), just west of the Florida Turnpike exit.
- ADMISSION:** Metrozoo is open every day of the year, from 10:00 a.m. until 5:30 p.m., with ticket booths closing at 4:00 p.m. Admission is \$4.50 for adults, \$2.00 for kids 12 and under, and children under two are admitted free.
- SPECIAL FEATURES:** Metrozoo's white tigers live on an island in front of a mysterious 13th century Cambodian temple. Metrozoo's giraffes roam with zebras and ostriches on a two-acre grassy island that looks just like their native African plains. At Metrozoo's Sulawesi, a replica of a Malayan Village, children and adults alike can come into closer contact with some of the zoo's tame animals. Viewing caves at several displays allow visitors to get within inches of some of the zoo's wild animals. There's an exciting show about birds every day in the zoo's amphitheatre, and informal zookeeper presentations every day at Sulawesi Village. There's a lakefront restaurant and observation deck overlooking the African Lobe. And everywhere are tropical plants and flowers as rare as the wildlife they surround.
- METROZOO'S GROWTH:** Metrozoo opened in December 1981. Currently 185 acres, with over 60 different kinds of animals on display, it's already one of the largest zoos in the world. Over the next three years, 75 more acres of new exhibits will be added on, and continued growth is planned throughout the 750-acre site.

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**TRANSPORTATION
IN THE ZOO:**

An elevated monorail circles the park, providing an air-conditioned overview of the zoo. The narrated tour is 2.2 miles in length. An all-day monorail pass is available for \$2.75, and allows unlimited use of the trains, which make stops at three stations within the park.

A guided tour by ground tram is also available, for \$2.00 for adults and \$1.00 for children.

**TRANSPORTATION
TO THE ZOO:**

Metrobus Route 99 Express leaves the Omni downtown for Metrozoo every hour on weekends only, from 10:00 a.m. until 2:00 p.m. It costs \$1.00 each way -- in exact change, please. For further information, call 638-6700.

**ZOOLOGICAL
SOCIETY:**

Joining the Zoological Society of Florida is an ideal way to support Metrozoo. There are three categories of membership available, the first of which is a Resident Annual Pass for \$9.00 per year that allows free admission to the zoo to the card carrier only, and no other benefits of membership. Other benefits, including regular receipt of two publications and notice of all special events, go along with regular membership -- \$15 for an individual, \$25 for a dual membership, and \$35 for a family.

The Zoological Society has a booth outside the Metrozoo ticket gate where you can get more information and sign up to become a member. A booth inside the zoo is the meeting place for the walking tours given by Zoological Society Docents which run Wednesday through Friday at 10:30 and 1:00 and on weekends at 10:30, 12:00, 2:00, and 3:30.

**EDUCATION &
GROUP RATES:**

A special education rate for Dade County school groups is available, at \$1.00 per student. Metrozoo also offers discounts to groups at the following rates: 15% off the regular admission price for a group from 20 to 99, and 20% off for any group over 100. Please call the Zoological Society, at 251-1128, to make arrangements for education and group rate reservations.

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ANIMAL FACT SHEETS

The attached are samples of fact sheets that are available and on file for the following animals, all of which are on display at Metrozoo:

Addax	Abyssinian blue-winged goose
Sable antelope	Bar-headed goose
European brown bear	Egyptian goose
Himalayan black bear	Lowland gorilla
Malayan sun bear	Pygmy hippopotamus
Blackbuck	Impala
Bongo	Red kangaroo
Bontebok	Kori bustard
Cape buffalo	Ring-tailed lemur
Forest buffalo	African lion
Dromedary camel	Markhor
Chamois	DeBrazza monkey
Chimpanzee	Nilgai
African crowned crane	Orangutan
Demoiselle crane	Scimitar-horned oryx
Lilliford crane	Ostrich
Stanley crane	African pelican
Siamese crocodile	Indian rhinoceros
Fallow deer	Siamang
Red deer	Sitatunga
Sambar deer	Marabou stork
Maxwell's duiker	Himalayan tahr
Yellow-backed duiker	Baird's tapir
Eland	Malayan tapir
African elephant	White tiger
Asian elephant	Defassa waterbuck
Flamingo	Wisent
Dama gazelle	Chinese golden wolf
White-handed gibbon	Grevy's zebra
Giraffe	

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Order: Primates
Family: Pongidae
Genus: Gorilla
Species: *G. gorilla gorilla*



LOWLAND GORILLA

Gorilla gorilla gorilla

Throughout history, the rare and mysterious gorilla has been an object of fear and superstition to man. In reality, gorillas are gentle and gregarious creatures, and peaceful coexistence is their way of life.

PHYSICAL CHARACTERISTICS: The gorilla is the largest living ape.

Black or dark brown in color, the back of a male tends to grey with age, and hence the term "silver back" for a mature male. The gorilla has a flat nose, large nostrils, and a crest of bone on the top of its skull, called the "sagittal crest," which gives the head a helmet-like appearance. Male gorillas weigh from 400 to 600 pounds, and stand up to 6 feet tall, while females are somewhat smaller.

NATIVE RANGE: Lowland gorillas inhabit the western portions of equatorial Africa.

DIET: Gorillas are vegetarians. They eat wild celery, thistles, leaves, berries, bamboo shoots, and sometimes tree bark.

HABITS: Gorillas have highly developed social orders, living in groups of up to 15 individuals, led by one dominant male. They are predominantly terrestrial, but do build nests in trees to sleep in at night. The gorilla's dangerous reputation comes from the intimidation display -- beating his fists against his chest -- that the dominant male uses to warn away intruders.

REPRODUCTION AND DEVELOPMENT: At birth, gorillas weigh three to five pounds. They mature approximately twice as fast as human infants, females reaching sexual maturity at 6 or 7 and males at around 9 or 10. There is no specific breeding season for gorillas. The females bear offspring every 3½ to 4½ years, after gestation periods of 8½ months. By 8 months, the young are weaned, and by 2½ they can travel under their own power fast enough to keep up with the group. Gorillas can live up to 50 years.

STATUS: Gorillas are seriously endangered. There may be only 5,000 lowland gorillas left in the wild, and probably no more than 450 wild mountain gorillas.

Order: Gruiformes
Family: Gruidae
Genus: Anthropoides
Species: A. paradisea



STANLEY CRANE
Anthropoides paradisea

Also known as the blue crane or the paradise crane, the Stanley crane is less of a marsh bird than other species of crane, preferring grassy country. To the Japanese, cranes are symbols of longevity, reputed in folklore to live 1,000 years.

PHYSICAL CHARACTERISTICS: Stanley cranes stand about 40 inches tall, with wingspans up to four and a half feet. They are slate grey, in color, with white at the top of the head. The head feathers make the head of a Stanley crane appear to be larger than other cranes.

NATIVE RANGE: Stanley cranes inhabit the grasslands of South Africa.

DIET: Stanley cranes eat grain, locusts, large insects, small reptiles, and sometimes fish.

HABITS: Gregarious creatures, cranes form flocks in which a few birds detach themselves from the group and take up sentinel positions to give warning of danger. The call of a Stanley crane is a loud, guttural croak, which is produced in a specially-modified windpipe.

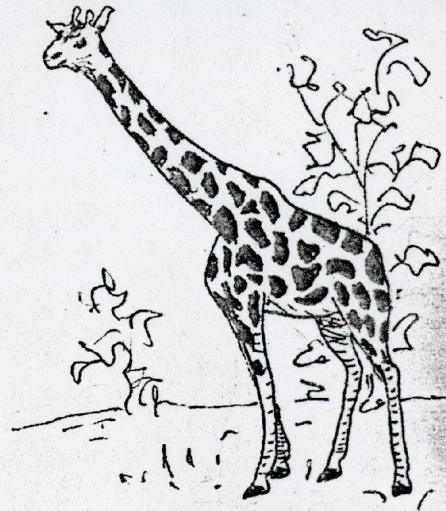
REPRODUCTION AND DEVELOPMENT: A spectacular courtship dance, performed by both sexes, takes place in breeding season. The birds walk around each other with quick, stiff-legged steps, and spread out their wings. They bow and stretch as the tempo of the dance increases, until they leap into the air, flying up 15 feet or more and drifting down again in slow motion. Stanley cranes lay two eggs. Incubation takes 27 to 30 days. Both sexes participate in the incubation. Young cranes have the remarkable ability to leave the nest on the same day they are hatched, but despite their being able to move about so soon, they still need to be fed and protected for up to six months. They can't fly until they are four months old, and they don't acquire adult plumage for two years.

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Order: Artiodactyla
Family: Giraffidae
Genus: Giraffa
Species: *G. camelopardalis*

GIRAFFE

Giraffa camelopardalis



The tallest of all living mammals, adult giraffes range from 12 to 17 feet in height, with the tallest giraffe ever measured reaching 19' 3". Contrary to popular opinion, giraffes are not voiceless, but have been heard to utter low moans or bleats, while females occasionally call their young with a whistling sound.

PHYSICAL CHARACTERISTICS: The coloration of a giraffe darkens with age, and the pattern of their spots is always different, as unique to each individual giraffe as human fingerprints. Giraffes have large eyes and ears, a long extensible tongue and prehensile lips. Both sexes possess two to four blunt, horn-like structures on the tops of their heads. Their horns are unlike those of any other mammal--knobs of cartilage at birth, they become bone and continue to grow slowly throughout life, with the bone eventually fusing to the skull.

NATIVE RANGE: Giraffes inhabit the grasslands of Africa.

DIET: Giraffes browse on the leaves of acacia, mimosa and wild apricot trees. In captivity, one adult will eat about 30 pounds of hay, grain and vegetables a day. They can do without water for weeks at a time, but if it's available they'll drink two gallons a week.

HABITS: Giraffes are shy and inoffensive animals, living in herds of as many as 70 individuals, with the average herd consisting of 12 to 15, led by an adult male. Females keep diligent watch, and are usually the first to detect danger. A giraffe must spread its front legs so its head can reach the ground to drink, and it is most vulnerable to predation when in this position. Giraffes may doze in a standing position, but when they want to sleep they lie down, folding their forelegs underneath them.

REPRODUCTION AND DEVELOPMENT: Mating takes place from July to September. After a gestation period of 420 to 450 days, a single young (rarely twins) is born and can stand about 20 minutes after birth. They nurse for about nine months and reach sexual maturity at three to four years. Giraffes live 15 to 20 years, though one once lived to 28 in captivity.

METROZOO, 12400 S.W. 152ND ST., MIAMI, FL 33177. (305) 251-0403.

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METROZOO'S ANIMAL SHOWS

From an elephant's salute to the silent flight of a great horned owl, Metrozoo's three animal shows are always entertaining and educational.

In the Flying Free Bird Show, ravens pick pockets of volunteers in the audience, parrots cry like babies and bark like dogs, and red-tailed hawks dive out of the sky at 120 miles an hour to make a pinpoint landing on their handler's arm. It's a show of talent, of daring, and of unusual ability. The show was put together by trainer Ray Berwick, whose credits include the animal effects for "Bird Man of Alcatraz" and Alfred Hitchcock's "The Birds."

In addition to this amphitheatre show, Metrozoo has daily zookeeper demonstrations in the courtyard of its Sulawesi Village. These informal talks cover a variety of topics, from reptiles to miniature horses.

A new feature at Metrozoo is the Burma Trail elephant presentation. Here, zookeepers explain why and how elephants are trained, and the elephants seem pleased to demonstrate their high intelligence to the gathered crowd.

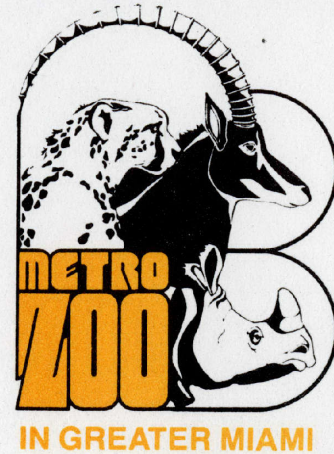
Metrozoo's schedule of free shows is intended to leave zoo visitors not only amused but more knowledgeable about animals and their behavior.

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METROZOO'S FREE-FLIGHT AVIARY

Birds are among the most beautiful of the world's animals, and no zoo is complete without a bird display. Metrozoo's free-flight aviary will be finished late in 1983, and will be one of the largest and finest in the world.

An acre and a half in area and 65 feet high, the entire structure will be covered with netting. The zoo's monorail goes right through the structure, as does a winding pedestrian walkway. Inside, waterfalls, mountains and landscaping will provide a lush background for the many rare and colorful Asian birds that will live there.

In keeping with Metrozoo's zoogeographic theme, the aviary will be designed to resemble the natural habitats of the Asian birds it houses. Specific areas will represent the mountains, plains and marshes of Asia. Among the species on display will be painted storks, white-crested laughing thrushes, Java peafowl, red-rumped barbets, and sacred ibis.

The completion of the free-flight aviary will add another dimension to the zoo -- an important step in the complex process of the development of Metrozoo.

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THE GROWTH OF A ZOO

Metrozoo's grand opening in December 1981 unveiled the 160-acre first phase of development of this cageless zoo. The next expansion, the 25-acre African Plains section, opened December 4, 1982. Metrozoo is one of the largest and most progressive zoos in the world. Already recognized by the zoological community as the state of the art in open zoo design, Metrozoo is now being recognized by the general public as the most exciting new attraction in South Florida.

Metro-Dade County's new zoo got its start in 1972. The county's first zoo, the Crandon Park Zoo on Key Biscayne, was vulnerable to hurricanes and confined to 45 acres. The zoo's \$1 million animal collection needed a larger and safer home, and so, with the strong support of the Zoological Society of Florida, the issue of a new zoo was passed by the county's taxpayers as part of the 1972 Decade of Progress bond election. The Metrozoo site, originally the Richmond Naval Air Station, where blimps were housed during World War II, was donated to the county in 1974 by the federal government and in 1975 construction began.

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Zoo designers developed a unique master plan for a totally cageless zoo, and a group of local artists work as the Zoo Design Team in implementing this plan. Their creative talents find expression in everything from imaginative ceramic sculptures to precise pictographs throughout the park, and even to building huge artificial rocks out of steel rebar and gunite.

Metrozoo's master design is based on a zoogeographic theme, which means that the exhibits are arranged according to the regions of the world the animals come from instead of by species. The rockwork, landscape and architecture of each display also portray that geographic area. With the development of the African Lobe over the next few years, that plan becomes more apparent. The new African Plains exhibit, in space and landscape and the easy coexistence of several different species of animals, is an excellent example of the intent of this zoogeographic design -- to recreate portions of the world's rapidly-vanishing wild areas.

As Metrozoo develops, it offers a true world experience -- a chance to see and learn about exotic animals and the faraway lands they live in. Metrozoo is well on its way to becoming an invaluable and enduring addition to the zoological community worldwide and to the residents of and visitors to South Florida.

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THE CHANGING ANIMAL COLLECTION

The individual character of a zoo is made up of many elements, among which are natural terrain, climate, design, and, of course, the animal collection. Each animal collection is distinctive, and all zoologists have those species which they point to with particular pride. A collection grows and changes all the time. As Metrozoo develops, its collection is taking on shape and definition.

Zoos acquire animals in three basic ways -- through buying, trading or breeding loans. The use of breeding loans as a method of exchange between zoos is becoming more widespread all the time, because of the critical need for a cooperative effort to preserve vanishing species and also because of the difficulty of placing a dollar value on exotic animals that are becoming rarer every day.

What makes a particular species valuable depends on several factors. The Indian rhinoceros, for instance, is dangerously close to extinction and is extremely difficult to breed in captivity. Both these factors make a pair like Metrozoo's worth in excess of \$120,000. Gorillas would

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be worth \$100,000, if they were for sale. But they are so endangered that zoos prefer to retain ownership and let a gorilla go to another zoo only on a breeding loan. An animal like a blackbuck, which breeds readily in captivity and is fairly common in the wild, can be bought for \$100. There's a whole range of animals and values in between these extremes.

Some animals that may not be critically endangered in the wild are still rarely seen in zoos, and this fact can increase their value. Into this category fall the bontebok, of which only 33 are living in North American zoos, and the Chinese golden wolf, which, though fairly common in the wild, is exhibited in only two zoos in this country -- Metrozoo and the San Diego Zoo. A species like the bongo is treasured because its distribution in the wild has never been large. Bongos are elusive forest antelopes that have not been seen by many people on earth.

Metrozoo's General Curator Bill Zeigler recently added two new members to his animal management staff -- Rick Barongi is Curator of Mammals and Ron Johnson is Curator of Birds. Through their combined efforts, Metrozoo's collection is expanding along with the zoo itself, and ongoing breeding programs are meeting with great success.

A zoo is different from most other recreational, educational and cultural institutions in that it changes all the time. The living things that the zoo protects and exhibits give the zoo almost a life of its own, and the way a zoo grows and changes is what makes it so special to the community to which it belongs. Metrozoo and South Florida are growing together.

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METROZOO'S PURPOSE

The idea of keeping wild animals in captivity is not a new one. The ancient Egyptians had zoos 4,000 years ago. But zoos have changed quite a bit since the Empress Hatasu first displayed live leopards and a giraffe brought back from the Land of Punt in 1494 B.C.

A progressive zoo like Metrozoo is a different experience from the old-fashioned zoo with cages in that when an animal lives in an open area, relatively unconfined, with the ground and the sky and the natural world around him, his behavior becomes more natural, and more interesting to watch. At Metrozoo, you don't see a tiger pacing behind bars -- you see him racing across the grass or sleeping beneath a ficus tree. Aside from the pure pleasure of the sight, a better understanding of tiger behavior in the wild is the result.

The open-air, cageless design of Metrozoo is essential to the experience of the zoo visitor, but it is also of primary importance to how the zoo animals live -- and therefore to the preservation of the balance of nature. Man's encroachment on most of the world's wild area and the consequent damaging effect on the wildlife of those areas have put hundreds of living species in danger of extinction. Modern zoos have taken on the burden of attempting to forestall the rapidly growing rate of extinction and to revitalize the numbers with the ultimate goal wherever possible of reintroduction of a vanishing species back into the wild.

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In recent years, techniques of captive propagation have grown more sophisticated. With the direction of the American Association of Zoological Parks and Aquariums, zoos all across the nation are cooperating with one another as never before in a complex mutual effort to preserve the life forms that share our environment.

Metrozoo is fortunate in having a climate and range of facilities conducive to breeding, and is having great successes in that area. In 1978, the first captive birth of a Siamese crocodile in the western hemisphere occurred at Metrozoo, and there have since been two more successful hatchings of this extremely rare species. In 1980, the birth of five Orinoco crocodiles at Metrozoo was the first in the country.

Zoos today are better places than ever before, for both animals and people, and Metrozoo is part of the movement that is changing the face of zoos. The Land of Punt is called Somaliland today, and the Empress Hatasu would hardly recognize what her menagerie has become.

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METROZOO'S PEOPLE

Bill Bird, Director of Dade County's gold-medal winning Park and Recreation Department, of which Metrozoo is a part.

Bob Yokel, Director of Metrozoo, supervises and coordinates construction, operations and curatorial management at Metrozoo.

Gordon Hubbell, D.V.M., previously Director of the Crandon Park Zoo, provided animal science expertise in the planning of Metrozoo and is now Director of Education.

Al Fontana, Assistant Director of Metrozoo, supervises the administrative staff and assists the Director in operational and curatorial capacities.

Bill Zeigler, General Curator, manages the Animal Science Division and establishes and implements breeding programs, acquisitions and loan arrangements with other zoos.

Rick Barongi, Curator of Mammals, supervises the zookeeping staff and assists the General Curator in all aspects of animal management.

Ron Johnson, Curator of Birds, coordinates the acquisition and management of the zoo's fast-growing bird collection.

Rick Hensler, Director of Marketing, develops marketing strategy and supervises all advertising, publicity, promotion and group sales.

Mike Weeks, Landscape Architect, supervises landscape design and installation to illustrate the various geographical regions of specific animal habitats.

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