

Introduction

The World in a Zoo

WALKING THROUGH A GRAND METROPOLITAN ZOO before opening hours tickles the mind with sights both beautiful and strange. African elephants swing their massive trunks. Bengal tigers bathe themselves while perched on elevated rocks. Arctic polar bears frolic in the sun. The cacophonous soundscape of lion roars, rhinoceros snorts, and spectacled-owl hoots forms a magical orchestra, a feast for the ears. Of course, one's senses become most immediately attuned to the earthy smells of the zoo, pungent and dark, the musky scent of nature itself.

Yet a step closer into the bowels of the zoo reveals even more astonishing discoveries. In a small kitchen, zookeepers slice open cantaloupes and pull heads of romaine for a peccary's lunch, and boil eggs for a spotted skunk. Volunteers prepare a salad of chopped apples, shredded carrots and yams along with a spoonful of mealworms for an armadillo's breakfast. Others prepare a cougar's meal with raw beef soaked in buckets of blood and topped off with laxatives, or carefully weigh out horse meat and count out frozen chicks or rats for a hungry peregrine falcon. Nearby, education volunteers spray designer perfume on colored toys designed to stimulate the senses of a blue-and-gold macaw or hedgehog. In the yards, keepers shovel bison dung and cart away wheelbarrows full of dirty hay while everyone gossips about how

the latest volunteer recruit mistakenly wore shiny white pants on her first day of zoo work.

At the entrance gates the first visitors eventually arrive in groups, mostly children accompanied by their mothers, and elementary school classes on field trips with students all adorned in identical T-shirts as a safety precaution. Toddlers chase the free-range peacocks left to roam the zoo grounds and nibble on dropped pretzel crumbs and hotdog buns. Older kids approach wildcat enclosures and bang on their glass walls, hoping to awaken their families of slumbering felines. Others imitate the gorillas and chimpanzees, sensing in them sparks of intelligence and a common ancestry. Occasionally a romantic couple strolls in, hand and hand, oblivious to the nearby primate screams of howler monkeys and crying human infants. Adults glance among the zoo's many placards explaining the life cycles of monarch butterflies, winged migrations of plovers and warblers, and endangerment of poison dart frogs. Multimedia spectacles at the zoo invite audiences indoors to watch animated penguins dance on a giant screen in climate-controlled theaters instead of enjoying the very real ones waddling outside.

Some zoo-goers have already set up their tripods and cameras decked out with light sensors and high-definition telephoto lenses to capture photographs of captured animals. Their close-ups may reveal the man-made technologies that zoo exhibits hide in plain sight: electric cables designed to look like sagebrush; hollow logs containing caches of kibble; palm trees made of fiberglass and steel. Cold-blooded lizards rest on artificially heated rocks molded out of concrete. Gray wolves are expertly trained to receive vaccinations on command. Prerecorded soundtracks of the rainforest and savanna accompany the chirps and howls provided by the zoo's actual wildlife.

These sounds reverberate against the chatter of seasoned workers and opinionated visitors swarming among the zoo's garden paths. Keepers tell dirty jokes while feeding pronghorn antelope, and surprise their giraffes with special treats on their birthdays. Zoo educators warn of global warming and the vulnerability of Alaska's polar bear population, while climate change skeptics discourage their children from believing such nasty realities. Outside the zoo gates, animal rights activists protest the captivity of African elephants and great apes.

These social elements of the American metropolitan zoo—its man-made environments, landscapes of meaning making, caregiving communities, and an uncanny ability to generate moral dispute among participants—all emphasize how zoos are not merely cordoned-off refuges

of animal life in the city but repositories of culture, living museums that chronicle how we humans make sense of the natural world. Zoos are therefore perhaps best understood by focusing attention on their most advanced primates—the zookeepers and animal trainers, educators and volunteers, exhibit designers and landscape architects, audiences and animal advocates that inhabit their gardens and surrounding social ecologies. Indeed, it is the human life of zoos that best animates what we might think of as *the culture of nature*, the ways we attach shared meaning and sentiment to our environment and all its creatures, great and small.

The Culture of Nature

In our postmodern world we have begun to tear down all sorts of traditional boundaries in recognition of their feeble foundations as man-made artifacts carved from social convention. Yet the one boundary that remains fixed in our collective imagination as taken for granted and unchanging may be the binary distinction between culture and nature, as well as its logical parallels—the city and the country, civilization and wilderness, humans and animals. Urban dwellers flee asphalt cities in droves during the dog days of summer to seek solace in countrified or naturalized landscapes from mountainside resorts to ocean beachfronts to national parks. We revere remote islands of wilderness as if the last refuges of unspoiled frontier, the literally undiscovered country—Australia’s Great Barrier Reef, the Amazon River Basin, the icy deserts of Antarctica. We organize social life itself according to further refinements of this primary culture/nature distinction: modern and primitive, mind and body, love and lust, order and chaos, artifice and authenticity.¹

Notably, the distinction between culture and nature has historically served as a dominant organizing principle for the development of American city zoos and continues to guide their operations today. Most of the nation’s first and most prominent zoological societies and accompanying gardens and parks were established in the late nineteenth and early twentieth centuries during an age when industrialization and urban development made Americans feel ever more distant from the natural living world.² In fact, the first U.S. zoos were specifically designed to serve as idyllic oases of nature protected from surrounding downtown business districts and immigrant neighborhoods

in metropolitan cities expanding in population, urban density, and economic growth. These zoos were sited in the great urban parklands of that era: New York's Central Park Zoo, Chicago's Lincoln Park Zoo, the Philadelphia Zoo in Fairmount Park, the Buffalo Zoo in City Park, and the Baltimore Zoo in Druid Hill Park. (The development of these early parkland zoos was followed by the founding of the Atlanta Zoo in Grant Park, the original San Francisco Zoo in Golden Gate Park, the Denver Zoo in City Park, the Pittsburgh Zoo in Highland Park, and the San Diego Zoo in Balboa Park.) Zoos emerged as part of the urban landscape just as everyday life was becoming increasingly alienated from the rural countryside and routine exposure to farm animals and wildlife.³

Today, zoos continue to order themselves on successive iterations of the culture/nature divide.⁴ For instance, not only are zoos thought of as places of nature in the city, but within zoos themselves there are workers and departments considered more directly aligned with *animal* care (zookeepers, veterinarians, diet volunteers) and others that handle more social and cultural matters concerning the zoo's *human* participants: educators, guest services personnel, media relations liaisons, caterers, and cashiers. Likewise, American zoos and their visitors consider exotic African, Asian, and Australian animals to be more *wild* than the *domesticated* U.S. farm animals such as the roosters, ponies, sheep, goats, and cows typically segregated in so-called children's zoo areas. (Of course, *all* zoo animals are under some domesticated regime, given that they are fed scheduled meals and regularly receive veterinary care.) In aquatic scheduled and marine parks like SeaWorld San Diego, dolphins, orcas, sea lions, and other highly intelligent mammals are given pet names—Seamore, Clyde, Shamu—and trained to mimic *human* gestures like “waving” before large crowds with their gigantic fins. Less anthropomorphic fish and other sea life that populate aquarium tanks remain nameless as anonymous representatives of their *animal* phylum and subspecies.

Yet however sensible such schemas may seem, binary distinctions between culture and nature are as fabricated as any other set of collective beliefs. We may contrast human civilization and its cities to greener climes, but the predominance of biodiverse urban habitats such as the Los Angeles parks where mountain lions and coyotes roam in search of prey, the Manhattan alleyways where brown rats copulate, and the Chicago four-star hotels infested with bedbugs tell a different tale. Likewise, the apelike *Homo sapiens* is an organic specimen, an amalgam of

bones, cartilage, DNA strands, blood vessels, neurotransmitters, fingernails, and skin. Rife with human bodies both living and dead (to say nothing of New York's feral pigeons and red-tailed hawks, Philadelphia's raccoons, Houston's armadillos and opossums, and Tucson's javelinas), the city is a jungle.⁵

Nature itself is a cultural construction organized by human imagination and experience. Just as the Earth's topography does not feature longitudinal lines painted across an actual equator, our world's permanent state is one of elemental disorder, a swirling soup of biological and inorganic matter from which we as language-generating humans selectively name and define as "pollen," "rivers," "hurricanes," "meadows," "antelope," and all else that we collectively categorize as nature. Of course, this does not mean that those empirical forces that we have earmarked as distinct and identifiable—gravity, photosynthesis, electromagnetism, plate tectonics, lunar tides—do not shape the Earth's ambient environment and its inhabitants. (Ask anyone who has ever been injured in an earthquake or tsunami, caught malaria, or fought off a leopard.) Rather, it means that distinctions between culture and nature have always gained their symbolic power through habits of mind rather than ecological realities. Chimpanzees share 98.4 percent of their genes with humans, yet as nonhuman animals they are considered categorically closer to wombats or gerbils than people.⁶ Even more arbitrarily, during the Holocaust the Nazis quite famously honored nonhuman animals as moral beings deserving of compassion, protection, and even cult worship while Jews were regarded as filthy "lower" beasts likened to parasites and vermin, as expendable as laboratory rats.⁷ Today we associate nature with quiet peacefulness and solitude, majestic yet fragile—something to preserve and protect. Yet until only a few hundred years ago, Western civilizations thought of the natural "wilderness" as dark, desolate, and dangerous, something to be feared if not avoided altogether—just ask Little Red Riding Hood or the wandering Israelites.⁸ Colonial settlers in North America also fantasized that forested sites inhabited for thousands of years by indigenous people represented an untapped New World of "virgin" wilderness.⁹ Even though what we call nature is quite literally all around us, we can render it meaningful only through the prism of human understanding, the culture of nature.¹⁰

Nature is a social reality constructed by humans, and in fact landscape features that we characterize as natural are often *literally* constructed by humans as well. Although the Global North has traditionally thought of the Amazon as a pristine Garden of Eden unadulterated

by human hands before European conquest, in fact evidence now suggests that Mesoamericans actually planted and cultivated the Amazon rainforest for millennia prior to Columbus's accidental voyage to the New World. As Charles C. Mann observes in his book *1491*, the Amazon is "a cultural artifact—that is, an artificial object." Elsewhere in his book Mann quotes Penn archeologist Clark Erickson, whose research demonstrates that "the lowland tropical forests of South America are among the finest works of art on the planet." In this sense, most Neotropical landscapes are quite literally man-made environments.¹¹

Indeed, even a sight as glorious to behold as Niagara Falls and its surrounding scenery was shaped by landscape architect Frederick Law Olmstead in the late nineteenth century, and then redesigned in the 1920s to divert additional water over the American Falls and augment the water level in its rapids below, all for "the betterment of the spectacle by using water to greater scenic advantage."¹² Most areas of North American "wilderness" like California's Yosemite National Park and Alaska's Denali National Park and Preserve are protected spaces, which means they are the product of government legislation, surveying, mapping, management, and other human activities. As UCLA professor N. Katherine Hayles wisely asks, "What counts as natural? Can we consider Yosemite National Park an embodiment of nature? If so, then nature is synonymous with human intervention, for only human intervention has kept Yosemite as a nature preserve. Asked for a definition of wilderness . . . Richard White offered the following ironic observation: wilderness is managed land, protected by three-hundred page manuals specifying what can and cannot be done on it."¹³

Jon Krakauer poignantly illustrates the literal indivisibility of culture and nature in his nonfiction book *Into the Wild*. Interspersing his reporting with autobiographical tales of his own intrepid outdoor adventures, Krakauer investigates the strange life and tragic death of Chris McCandless, a young Emory graduate who attempted to escape civilization to "live amongst the wild" in Alaska's Outer Range in 1992 and eventually succumbed to starvation and died, all alone. Yet despite McCandless's urge to lose himself in the snowy wilderness, his body was discovered within a six-mile radius of no fewer than four cabins, nearby a gauging station built by the U.S. Geological Survey, and less than sixteen miles away from a well-traveled road in Denali patrolled by the U.S. National Park Service. No fewer than three separate parties found his corpse rotting in an abandoned Fairbanks City Transit System bus.

As Krakauer observes, “In coming to Alaska, McCandless yearned to wander unchartered country, to find a blank spot on the map. In 1992, however, there were no more blank spots on the map—not in Alaska, not anywhere.”¹⁴

The whittling down of places on Earth untouched by mankind has been rendered absolute in the current era of human-induced global warming and climate change. Since the Industrial Revolution, anthropogenic activities—notably massive population growth, urbanization, rainforest clearing and woodland destruction, intensive farming and livestock production, toxic pollution, and unabated fossil fuel consumption—have rendered every inch of the planet’s soil, ocean water, and atmosphere transformed, perhaps for millennia. In its fifth assessment report released in 2013, the Nobel Peace Prize–winning Intergovernmental Panel on Climate Change (IPCC) details the outsized mark that industrialized civilizations have made to the Earth’s biosphere, notably growing atmospheric concentrations of carbon dioxide, methane, and nitrous oxide. IPCC experts have conclusively identified the rapid intensification of these greenhouse gas emissions as the primary contributor to the recent warming of the Earth’s surface, atmosphere, ocean, and climate system; increased ocean acidification; rapid polar ice loss and glacier melt; and global rising sea levels.¹⁵ As just one of the many devastating symptoms of our new environmental reality, the journal *Science* reports that recent nonlinear increases of species extinction exceed prehuman baseline levels by a factor of up to *one thousand*—a crisis that scientists refer to as the sixth major extinction event in the history of life on our fragile planet.¹⁶

We have also begun to see how anthropogenic climate change will affect human societies the world over: extreme storms, punishing droughts, and other weather-related catastrophes; ruined agricultural harvests for a growing population; decreased access to water in unstable regions of the Global South; and the flooding of coastal cities from New York City to New Orleans. All this confirms that there is no meaningful distinction between *natural* history and *human* history.¹⁷ Even hardnosed geologists have considered officially renaming the late Holocene period the “Anthropocene,” arguing that humans have impacted the planet “on a scale comparable with some of the major events of the ancient past,” changes that may be seen as “permanent, even on a geological time-scale.”¹⁸ In a 2011 article published by the Royal Swedish Academy of Sciences, a team of scientists argues,

The Anthropocene implies that the human footprint on the global environment is now so large that the Earth has entered a new geological epoch; it is leaving the Holocene, the environment within which human societies themselves have developed. Humanity itself has become a global geophysical force, equal to some of the “great forces of Nature” in terms of Earth System functioning. . . . The Anthropocene provides an independent measure of the scale and tempo of human-caused change—biodiversity loss, changes to the chemistry of atmosphere and ocean, urbanization, globalization—and places them in the deep time context of Earth history. The emerging Anthropocene world is warmer with a diminished ice cover, more sea and less land, changed precipitation patterns, a strongly modified and impoverished biosphere and human-dominated landscapes.¹⁹

Admittedly, the Anthropocene is as creatively rendered as the Earth’s longitudinal lines. Distinctions of time are marked only by our collective imagination, not by some celestial stopwatch that beeps three times when a new geological epoch begins.²⁰ Still, the cultural rise of the Anthropocene provides a moment for us as a society to acknowledge that humans are as much a part of what we call nature as ocean currents, jet streams, erosion, and other planetary forces. Of course, the Earth itself does not care whether rising extinction rates are due to the spread of deadly viruses, cyclical changes in the planet’s temperature, or decades of carbon emissions from fuel-inefficient trucks. Again, the boundary between culture and nature, human civilization and the wild, is an imaginary one, important only to us.

In this book I argue that zoos best reflect how humans construct the natural world, both literally and figuratively. With its carefully curated animal collections, audiovisual entertainment media, educational and conservation programming, and staged encounters with wildlife, the zoo provides a fitting model for how humans distill the chaos of the outdoors into legible representations of collective meaning and sentiment that project our prejudices and desires, past and present. At the same time, zoos are monuments to human domination and folly, designed and constantly transformed by the ingenuity of architects, horticulturalists, and zookeepers, and the occasional whims of zoo trustees and elite donors. Their lifelike habitats, curated gardens, and captive creatures therefore help to illustrate humankind’s recurring impact and reconstitution of the Earth’s geology and biosphere in the age of the Anthropocene. Perhaps more than any other cultural attraction in the contemporary American city, zoos cannot help but represent nature as

a human creation, a product of both imagination and hubris. My hope is that by understanding zoos we might rethink our preconceptions and priorities in a world already beset by mass species extinction, suffocating heat waves, unquenchable forest fires, record-breaking droughts, and the poisoning of the world's oceans.

Put Me in the Zoo

As a tenured professor at the University of Pennsylvania, I usually spend my time giving lectures to classrooms of college students, advising doctoral candidates on their dissertations and comprehensive exams, and slogging through committee meetings with university faculty and administrators. So how did I wind up at the zoo in the first place? As a cultural sociologist and urban ethnographer by training, I had earlier in my career written two books about urban nightlife, the first on Chicago's blues scene, the second on the growing nightlife economy of restaurants, nightclubs, and cocktail lounges in and around downtown Philadelphia. These projects required me to spend long hours at late-night music venues, corner taverns, nouveau-fusion eateries, martini bars, high-end speakeasies, dance palaces, and corner taverns until the wee morning hours. (Poor me.)

After my wife gave birth to our son (whom I will henceforth refer to as Scott), this nocturnal lifestyle no longer seemed tenable nor all that appealing. But at a very young age Scott developed an acute fondness for our neighborhood's menagerie of leashed puppies, wandering housecats, and backyard chickens. This enthusiasm eventually brought us to the local Philadelphia Zoo nearly every weekend to take in its far more exotic elephants, red pandas, marmosets, pumas, gorillas, and giraffes. From the helium-filled Channel 6 Zoo Balloon that rises hundreds of feet up into the sky to its intricate naked mole-rat exhibit down below, we took it all in: the unforgettable sights, sounds, and smells of the nation's oldest zoo. (The smells were the most difficult to forget.) With each visit, our curiosity grew about the zoo's strange creatures, and what makes them tick—and chirp, moo, growl, honk, quack, roar, and squeal.

Yet as Scott and I continued our visits to the zoo, the sociologist in me couldn't help but wonder about its strange allure. Zoos share a number of apparent similarities with nightclubs and cocktail lounges, and not only because they all feature the public display of uninhibited

mating rituals. Both city zoos and nightlife scenes are cultural worlds of urban entertainment, tourism, and popular culture. They also serve as theatrical stages for the performance of authenticity and fantasy, and enveloping zones of rich experience and meaning making for a range of consuming audiences. Both zoos and nightlife scenes promise to serve their surrounding communities by bringing people together in a spirit of sociability and celebration of public life, yet often slip into the trap of commercialization and superficiality. Perhaps most of all, both zoos and nightlife environments force their participants to reflect on their relationship to a larger social world, and their place within it.

I therefore traded in my tweed jacket, bookshelf-lined office, and other professorial trappings for a zoo uniform of khakis, work boots, green polo shirt, and accompanying nametag, and got my hands dirty (quite literally) by volunteering for a total of four years at two urban zoos.²¹ At one institution that I call City Zoo I worked primarily in an outdoor children's zoo. There, I was responsible for cleaning enclosures and exhibits, preparing and distributing zoo-prescribed diets to birds of prey and small mammals, managing children in a petting yard filled with goats and sheep, and providing behavioral enrichment to a variety of animals. Along the way, I shoveled cow manure and chicken dung, goat pellets and duck droppings. I scrubbed owl and macaw cages and lined them with old issues of *USA Today* and the *Wall Street Journal*, clipped a ferret's toenails, and once got locked inside a bird's double-caged enclosure. I picked horse and donkey hooves, stuffed frozen feeder mice with vitamin E capsules, bathed tortoises, and exercised overweight rabbits.

At a second zoo that I call Metro Zoo I worked as a docent, or volunteer educator. I handled and presented a variety of small live animals to a range of zoo audiences, including families, school groups on field trips, children's birthday parties, and busloads of local nursing home residents. I learned to handle Arizona desert king snakes, ball pythons, chinchillas, fat-tailed geckos, screech owls, black vultures, millipedes, giant Flemish rabbits, and an American alligator. I also regularly helped prepare diets for most of the animals in the zoo's collection, which included giraffes, jaguars, howler and saki monkeys, cougars, river otters, peccaries, golden lion tamarins, bison, wolves, and Jamaican fruit bats. Much of the food was expired (but still safe) meat, fish, and produce donated by local supermarkets and grocery stores, including whole strip loins, boxes of oranges and kale, and odds and ends of raw salmon and squid for the otters. Notably, keepers and support staff went all-out

when preparing animal diets. While at Metro Zoo I watched one retirement-age volunteer teach another how to chiffonade romaine lettuce for an iguana, while another regularly grated carrots to make a slaw for the zoo's spotted skunk and armadillos.²²

While on and off the job at both zoos I experienced some of the daily labor expected of zoo workers, observed social life as it unfolded, and freely conversed with keepers, veterinary staff, educators, volunteers, animal curators, guest services personnel, administrative staff, and hundreds of zoo visitors. (Fortunately, no animals were ever seriously harmed on my watch, although I myself endured bites, scratches, and other humiliations from several domestic rabbits, a bearded dragon, an African gray parrot, and at least one goat.) Of course, I cannot claim to have worked nearly as rigorously nor under the same precarious conditions of low-wage employment, danger, and stress as full-time zookeepers regularly do every day without complaint. Still, I managed to log more working hours of animal husbandry and fecal cleanup than your average Ivy League sociology professor, and learned a great deal while doing it. I introduced live boa constrictors, blue-tongued skinks, and tarantulas to hundreds of children and their parents; gave tours of a greenhouse packed with fluttering butterflies; and illustrated to camp counselors the visible differences between male and female Madagascar hissing cockroaches. Although I had never in my life displayed any prior kinship or rapport with animals, even the neighbors' pets, I eventually grew attached to the zoo animals under my care—and not only the cute rabbits (which can actually be quite vicious and nasty), but less popular critters as well, including black rat snakes, chuckwallas, and, yes, even the cockroaches.

Both City Zoo and Metro Zoo are highly respected institutions accredited by the nonprofit Association of Zoos and Aquariums, or AZA. To give a sense of the exclusivity of the AZA, according to the most recent publicly available figures the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture licenses 2,764 animal exhibitors, ranging from roadside attractions to high-tech breeding centers. In comparison, as of September 2014 the AZA had accredited only 228 current zoos and related facilities, or fewer than one-tenth of all U.S. animal exhibitors. From the Alaska SeaLife Center to Zoo Miami, AZA-accredited institutions include 138 conventional zoos, 43 aquariums, 10 hybrid zoo/aquariums, 18 safari and theme parks, 15 science and nature centers, 2 aviaries, and 2 butterfly houses. More than half of these accredited zoos, 54 percent, are private nonprofit institutions

(such as the San Diego Zoo), while 35 percent are public (Smithsonian National Zoo) and 11 percent are for-profit entities (Disney's Animal Kingdom, SeaWorld Orlando).²³ The AZA claims its zoos attract more than 181 million annual visitors, teach 12 million students a year who visit through school field trips, support 142,000 jobs, and contribute \$16 billion annually to the U.S. economy. These accredited zoos contain a total of 6,000 species and 751,931 individual animals, and are part of an elite network of institutions that can loan and breed their animals with one another. They may also participate in the AZA's Species Survival Plan (SSP) programs that manage the propagation of threatened species in attempts to ensure the continued survival of endangered creatures like the Panamanian golden frog and the Siberian musk deer.²⁴

In addition to my hands-on research at City Zoo and Metro Zoo, I traveled to twenty-six AZA zoos (or 12 percent of all AZA-accredited U.S. zoos) across the country, including some of the nation's most prominent metropolitan zoos, aquariums, and marine mammal parks, from New York's Bronx Zoo to SeaWorld San Diego to the Monterey Bay Aquarium in Northern California. My visits included backstage tours at a number of facilities as well as extended periods of public observation at selected exhibits, animal shows, and other attractions. (I also visited a number of nonaccredited roadside zoos and aquariums, just for good measure.)

It is perhaps unsurprising that men in their early forties who wander the zoo alone while staring at strangers in public, jotting down notes, and taking photographs of crowds that may include small children are often seen as strange or even dangerous among zoo-going families.²⁵ Therefore, in order to more comfortably blend into such family-oriented surroundings (and also because I desperately wanted the company), for much of this secondary research I was accompanied by my aforementioned son Scott, whose age spanned from three to seven years during the course of the research. To be sure, my attempts at blending seamlessly into these zoo environments would not have been possible without his agreeable participation as an adventurous fieldwork companion.²⁶ I also relied on the watchful eyes of a team of trained research assistants from Penn who conducted over one hundred total hours of public observation among visitors at a number of zoos around the region.²⁷ I followed up this research by meeting with a wide variety of key informants and stakeholders in the zoo world, including keepers, veterinary technicians, educators, and volunteers; media relations executives

and other administrative personnel; zoo architects and exhibit designers; and anti-zoo animal advocacy activists.²⁸

The World in a Zoo

On a beautiful fall morning, Scott and I arrived at the Philadelphia Zoo especially early in order to get in line for the zoo's hot-air balloon ride. After waiting our turn, we climbed aboard its basket and began our speedy ascent: a four-minute ride through the blue sky to a spectacular height of four hundred feet. After our flight upward the balloon sat aloft, tethered to a cable that could support 98,000 pounds—ten times stronger than necessary. The cable was lined with small red flags to make it visible to low-flying aircraft.

With my acute fear of heights, I found none of this reassuring. I was unsure whether to be more terrified about the possibilities of the balloon plummeting back down to the concrete parking lot below, or simply breaking off from our tether and flying away. Still, I knew I had to put on a brave face for Scott (he was only four at this point), but he seemed too much in awe of the view to notice my furrowed brow. Looking down through a small window in the basket, he breathlessly exclaimed, "Daddy, you can see the whole world from up here." He said this because he spotted what he thought was "the edge of the Earth," which I explained was really the horizon. But this was a fitting metaphor, given that Scott and I could look straight down to the zoo's exhibits and attractions, a scaled-down model of the world with its artificially replicated ecosystems in miniature—the African savanna, the Australian outback, the Arctic icecap.

This book similarly presents a pocket-sized depiction of a much larger place, the social and cultural world of the American metropolitan zoo. Think of each of its chapters as the different staged areas of a zoo safari, perhaps one where waterbuck and hippos stomp in tall grasses behind hidden electrified wires. First we visit the zoo's roaring animal exhibits, driving past simulated jungles where captive gorillas thump their chests and forage for breakfast cereal scattered about their enclosures. As built environments, zoo exhibits and their facades rely on the stuff of culture, both synthetic materials (fiberglass, acrylic, epoxy) and symbolic fictions (canonical myths, idealized representations, moral narratives). Just as the Earth itself, the zoo's environment is

a result of human engineering and its unintended consequences, with its mountains and ice floes made from inert cast-in-place concrete, and bamboo stalks made of inflexible steel.

From here we turn to the families and other audiences who wander the grounds together in small groups, attaching sentiment and symbolic value to the zoo's resident animals. Like nature, the culturally filtered meanings we attribute to animals may be the product of imagination and myth, yet such fictions are no less powerful to those who believe them.

Our sociological safari then takes us behind the scenes, where we will be introduced to the community of zookeepers whose dedicated efforts keep zoos afloat by keeping their resident creatures alive and healthy. Birds of a feather, keepers forge loving relationships with zoo animals and each other, collectively animating their work with shared meaning and moral purpose. More like hospitals than prisons, zoos employ responsive caregivers who assign helpless animals pet names when they are born, tend to them throughout their lives, and solemnly mourn them when they pass away, just as if such animals were needy human patients.²⁹

Zoos are like hospitals in another way as well. In a reversal of historical trends, today women constitute the majority of American zookeepers.³⁰ Female zoo recruits also tend to be younger and more educated than the retired men they typically replace. Yet although 82 percent of today's zookeepers have four-year college degrees in biology, zoological science, or other related fields, most keepers are vastly underpaid, just as are female caregivers in other occupational contexts.³¹ Nevertheless, the camaraderie and selfless commitment displayed by zookeepers speak volumes, and provide a model for the contemporary demands of environmental stewardship over the Earth's growing numbers of endangered inhabitants. We will meet these brave zookeepers as well as their important counterparts: the educators who provide cultural interpretations of the zoo's landscape and its resident creatures to visitors and the public, and in doing so attach human meaning to animal life. The attentiveness and drive of these teachers illustrate the vital need for disseminating knowledge about basic science and an appreciation for the Earth's biodiversity in the wake of the current environmental crisis. They will share with us both the enormous pleasures and difficult challenges involved in educating the general public about these issues.

Our safari will then head uphill to a more expansive view of competing zoo priorities, as places of entertainment and amusement on the one hand, and centers of environmental protection and species conservation on the other. We will visit zoos and aquariums erected in some of the world's most visited tourist destinations, including Orlando's Disney World, SeaWorld San Diego, and the Las Vegas Strip, stopping by their shark tanks, killer whale spectacles, amusement park adventures, and gift shops. We will also see how the nation's most esteemed zoological institutions similarly traffic in themed environments and branded diversions, as well as fanciful myths about the Global South.

We will then take a critical look at how zoos attempt to fulfill their missions as environmental stewards and conservation educators, with an eye toward recognizing the challenges they face in both confronting the threat of the environmental crisis and effectively communicating the urgency of the problem to the public. Our safari eventually comes to a head in the zoo's beating heart, a hub of contestation and debate surrounding the morality of zoos and the exhibition of captive creatures. In the social world of the zoo, keepers and educators, media relations staff, zoo visitors, and animal rights activists publicly wrestle with complex issues surrounding the domination and display of animals—what I call the *captivity question*. We finally conclude our scenic jaunt by reflecting on the zoo as a repository of culture, and consider some suggestions derived from my research for reimagining zoos as sanctuaries for protecting wildlife, schools for educating the public about the environmental crisis, and showcases for modeling future possibilities for dealing with urban life in the anthropogenic age.

"Daddy, you can see the whole world from up here." Well, maybe not the whole world, but certainly *our* world, a socially constituted reality as reflected by the zoo and its culture of nature—its geographies of meaning and moral sentiment, regimes of conservation and captivity, landscapes of learning and entertainment, and communities of caregiving. We begin our sociological safari of the American metropolitan zoo by exploring the artificial environments of authentic animals.