

## Education

1985 Master of Landscape Architecture, Cornell University, Ithaca, NY  
 1973 Bachelor of Science, Ornamental Horticulture, Cornell University

## Registration

1990 Landscape Architect, State of Washington  
 2006 Landscape Architect, State of Texas, State of Ohio  
 2012 Landscape Architect, States of Utah and Oklahoma

## Professional Memberships

1993-present American Society of Landscape Architects, ASLA  
 1998-present American Zoo and Aquarium Association

## Professional Practice

2003-present Principal: PJA Architects + Landscape Architects, P.S.,  
 Seattle, Washington  
 1999-2003 Principal: Jones & Jones Architects & Landscape Architects,  
 Seattle, Washington  
 1994-1999 Senior Associate: Jones & Jones Architects & Landscape Architects,  
 Seattle, Washington  
 1990-1994 Associate: Jones & Jones Architects & Landscape Architects,  
 Seattle, Washington  
 1985-1990 Senior Associate: Arnold Associates, Princeton, New Jersey

## Publications

# Resumé

*Elephant trails at the National Zoo*  
 The American Association of Zoos and Aquariums, National Conference, 2010

*Orangutan Sanctuary: Design for Natural Behaviors*  
 The American Association of Zoos and Aquariums, National Conference, 2007

*A Walk Through Time: Pine Jog Environmental Center Interpretive Trail*  
 National Association for Interpretation, Annual Workshop, 2004

*Zoo Master Planning & Exhibit Design for the 21st Century*  
 The AZA/CACG, Zoo Design Symposium, Shanghai, China P.R., 2004

*Collaboration, Cooperation & Commitment: A New Tapir Habitat at Summit Zoo*  
 2nd Annual Tapir Symposium, Panama City, Panama, 2004

*Trail of the Elephant: Entertainment, Education, and Enrichment.*  
 The American Association of Zoos and Aquariums, National Conference, 2003

*Tell Me a Story: Education & Entertainment -- The Reid Park Zoo Master Plan.*  
 The American Association of Zoos and Aquariums, Western Regional Conference, 2002

*Active Interpretation at the Trail of the Elephant Exhibit.*  
 National Association for Interpretation, Annual Workshop, 2001

*Planning Eco-Tourism Facilities: Suriname, A Case Study.*  
 American Planning Association National Conference, 2001

*Learning a New Language.* Brookfield Zoo's Apes Conference, 2000

*Raptor Workshop for the Avian Interest Group.*  
 American Zoological Association Northeast Regional Conference, 1999

*Gardens for Plants and People.*  
 American Zoological Association Western Regional Conference, 1993

## Project Experience 1

### **Columbus Zoo Master Plan**

Columbus Zoo, Columbus OH, 2014-2015. Principal Planner. Comprehensive planning services for the long term development of exhibits and attractions, representing five separate regional zones; Wild World, Asia Quest, The Americas, African Forest, and the Islands.

### **Brookfield Zoo Baboon Exhibit**

Brookfield Zoo, Brookfield, IL, 2014-2015. Principal in Charge. A total renovation of the existing baboon exhibit which will improve public viewing and provide indoor viewing areas for visitors. The new exhibits will present Hamadryas baboon, African Crested Porcupine, and Meerkats, in simulated natural habitats and culturally relevant architectural references. Features include training walls, amphitheater, crawl tunnels, multiple viewing walls, and an indoor viewing space suitable for special events and evening functions.

### **Africam Safari Pitama Master Plan**

Pitama, Chile, 2014. Principal Landscape Architect. A master plan for a new 100 hectare safari park that includes vehicle safaris, walking zone, restaurants, retail venues, and interactive live animal exhibits. The park will also include multiple lodging options, fine dining, a winery, and mountain bike/horseback riding trails.

### **Ankara Zoo Master Plan**

Ankara, Turkey, 2014. Principal Landscape Architect. A master plan for a new 50 hectare safari park that includes vehicle safaris, walking zone, restaurants, retail venues, and live animal exhibits representing animals from around the world. The park design also included design of the main entry, a themed shopping plaza, and a science center.

# Resumé

### **Tembo Elephant Preserve Master Plan**

Tembo Elephant Preserve, California, 2014. Principal in Charge. Envisioned as a refuge for African elephants to live and behave as they do in the wild, this 5,000 acre site in North Central California is planned to provide habitat for 50 elephants. Animal management facilities, on site staff housing, educational venues, and native habitat preservation are among the planned components.

### **New Doha Zoo**

Doha, Qatar, 2014-2015. Principal Landscape Architect. Development of working drawings for a new 100 hectare safari park in the mid-east that will exhibit animals from around the globe in simulated natural habitats, that include; African savanna, African forest, Asian montane, Asian grassland, and South American rainforest enclosed in a high-tech dome structure. The project includes a driving safari, walking safaris, and a river boat ride in the tropical zone.

### **Jacksonville Zoo – Asia Exhibits**

Jacksonville Zoo, Florida, 2011-2013. Design Principal. As the first major new exhibit complex to follow the most recent master plan, this multiple species exhibit includes hornbill, small-clawed otter, babirusa, Visayan warty pig, and two tiger exhibits. Visitor experiences include underwater viewing, overhead transfer of tigers, pop-up bubbles, and a climate controlled function space for special events.

### **Longsha Animal Park**

Qiqihar, P.R. China, 2012-2013. Principal in Charge. The master plan and schematic design for this new 80 acre zoo in far northeastern China includes a full range of animal species from around the globe and features both outdoor and indoor exhibits. Animals are represented in bio-geographical zones and visitor amenities include an American farmyard, restaurants, cafes, gift shops, and a live animal theater.

### **Elmwood Park Zoo – Jaguars & North America**

Morristown, Pennsylvania 2013. Principal. The concept plan for this project was developed to illustrate improvements and future expansion for this native animal species zoo. The multiple species exhibit includes jaguar, puma, wolf, black bear, ocelot, jaguarundi, river otter, and porcupine in an immersive visitor experience.

### **Guyana Zoo – Master Plan**

Georgetown, Guyana, 2013. Principal. The new master plan proposes major new renovations, exhibits, and visitor amenities for the existing zoo. Set within the 100 acres botanic garden, the 7 acre zoo is a popular local destination for families with children and exhibits the unique fauna of the country. The new plan envisions the zoo as a future tourist destination where visitors can experience a bit of the nature that the country has to offer without leaving the city.

## Project Experience 2

### **Windows to Africa II**

Hainan, P.R. China, 2013. Project Manager. An update and redesign of the 2007 Master Plan. The new plan adds a major hotel, conference center and villas. It includes a yacht marina, beach club and tourist medical facilities on the ocean front property.

### **Tracy Aviary, Tropical Rainforest**

Salt Lake City, Utah 2011-present. Principal in Charge/Principal Landscape Architect. The Tracy Aviary is one of only a few zoos that exhibit only birds in their collection. The rainforest exhibit will be the first large walk-thru, indoor, climate controlled visitor experience in the zoo and will display a collection of tropical species in free-flight. In addition to the birds, young visitors will enjoy a number of thematic play elements throughout the space and the lush plantings, stream, waterfall, and artificial rockwork will immerse visitors in an exotic forest.

### **Oakland Zoo - California!**

Oakland, CA, 2006-present. Principal in Charge/Principal Landscape Architect. This new exhibit development will create a native California animal experience in a previously undeveloped area of the zoo. The species list includes grizzly bear, black bear, cougar, jaguar, wolf, bison, Tule elk, small mammals, amphibians, and reptiles. Visitors will arrive to the remote location via an aerial tram and will enjoy both the animal exhibits, the interpretive center, the gift shop, and the restaurant with views of the San Francisco Bay area.

### **Zoo Miami - Florida; Mission Everglades**

Miami, 2008-Present. Principal in Charge/Principal Landscape Architect. The native Florida exhibits at Zoo Miami will highlight the unique habitats and animals of South Florida. The 5 acre multispecies exhibit zone includes an adventure boat ride, interactive eagles nest, crocodile crawl, alligator bridge challenge, otter slide, bear den tunnel and bobcat tree-house.

# Resumé

### **Reid Park Zoo – African Expansion Concept Plan & Elephant Exhibit**

Tucson, Arizona, 2007-2011. Principal. The Concept plan includes immersive exhibits for elephant, hoofed stock, wild dog, wart hog, rhino, meerkat, and other small mammals. First phase exhibit design includes holding facilities and habitat for elephant and visitor facilities.

### **Moody Gardens - Tropical Rainforest**

Galveston, TX 2009-2011. Principal Landscape Architect. Moody Gardens is renovating their existing rainforest building after damage from Hurricane Ike in 2008. Working with local architects and engineers, PJA is responsible for the development of new animal exhibits as well as the renovation of existing habitats. With over 30 species to be displayed, PJA is working closely with the staff of Moody Gardens to provide state of the art exhibits. The animals exhibited include: giant river otter, Chinese alligator, duiker, leaf cutter ants, caiman lizard, bats, butterflies and other tropical forest fauna.

### **National Zoo - Asia Trail II**

Washington, DC, 2006-2010. Principal in Charge. PJA is an integral member of the design/build team renovating the existing elephant barn and habitats and serves as zoological consultant to the team's primary architectural firm in developing the holding building containment, and as prime landscape architect for the site design, visitor experience, habitat furnishings and planting design. The project will triple the available area for the elephants and will create a series of interconnected habitats which will exhibit two bull and five cow Asian elephants.

### **Houston Zoo - African Forest Exhibit**

Houston, Texas, 2003-2010. Resource Principal. Concept design through construction for a new 10-acre exhibit featuring gorillas and chimpanzees, along with many other species found in the forests of the Congo Region of Africa.

### **Oklahoma City Zoo Master Plan**

Oklahoma City, OK, 2010. Principal in Charge/Principal Landscape Architect. The Oklahoma City Zoo Master Plan was developed during a series of interdisciplinary workshops involving the client and the team of consultants that included architects, landscape architects, engineers, interpretive designers, cost estimators, operations experts and business planners.

## Project Experience 3

### **Zhengzhou Safari Park Master Plan/Schematic Design**

Zhengzhou, P.R. China, 2010. Principal in Charge/Principal Landscape Architect. This project represents a new 1,000 acre safari park that is the anchor attraction for a major new residential development outside the city. The plan includes a drive-thru open range savanna experience and walking trails that exhibit animals for Africa and Asia, as well as select iconic species from around the world.

### **Jackson Zoo – Asian Precinct Master Plan/Exhibit Design**

Jackson Zoo, Mississippi, 2007- 2010. Principal. Designed to replace antiquated exhibits in the zoo, the new Asian Precinct will include tiger, leopard, orangutan, red panda, otter and gibbon in an immersive environment. PJA is collaborating with a local design team on the first phase exhibits for tiger and leopard.

### **El Paso Zoo - Passport to Africa**

El Paso Zoo, El Paso, Texas, 2004-2010. Principal in Charge. The western expansion of the zoo will include a new precinct of the zoo dedicated to exhibiting animals of the African plains in a landscape immersion experience that will make visitors believe that “they are there”. The exhibits include: giraffe, zebra, gazelles, antelope, mandrill, wild dog, warthog, lion, meerkat, and a number of reptiles, invertebrates and amphibians.

### **Singapore Zoo – KidzWorld Rainforest Challenge**

Singapore Zoo, Singapore, 2006-2009. Principal. As an entirely new children’s park that will replace the existing children’s zoo, the Rainforest Challenge will be an activity zone that focuses upon entertainment, excitement, and appreciation for the rainforest. The area includes active playscapes, animal contact zone, an amphitheater with animal shows, a restaurant and café, and a water play zone.

### **Singapore Night Safari – West Loop Master Plan/Finale Concept**

The Night Safari, Singapore, 2006-2009. Principal. The master plan for the west loop increases the length of the ride experience. The finale concept creates an entertaining and exciting ending for this first of its kind night safari. The west loop will highlight the nocturnal animals of South America and includes a treetop lodge for night viewing of the small creatures of the forest.

### **Melbourne Zoo – Stories from the Sea**

Melbourne, Australia, 2006-2009. Principal. PJA assisted the local design team in designing a new exhibit that immerses visitors in a world seldom associated with Australia – the marine coast of the Southern Ocean. The primary species exhibited include Australian fur seal, Little Blue Penguin, tidal pool species, and a fish aquarium.

### **Australia Zoo Hotel**

Beerwah, Australia, 2008. The Australia Zoo, Home of the Crocodile Hunter (Steve Erwin) is in the midst of a series of major expansion projects. The new resort hotel is envisioned as a destination resort that will be family friendly, provide a variety of accommodations, multiple dining experiences, opportunities for viewing African animals, and includes first class conference facilities. The 350 room hotel is complemented by an overnight tent camp, day spa, two swimming pools, and nature trails.

### **Moody Gardens – Arktos**

Galveston, Texas, 2008. Design Principal. Moody Gardens is proposing a new venue at their multi-experience park. The new arctic exhibits will be housed beneath a climate controlled transparent structure designed by one of the world’s most well known architects. The animals exhibited include: Beluga whale, seal, walrus, polar bear, arctic wolf, and arctic fox. Arctic birds will be exhibited in free flight within the domed structure, and veterinary facilities are included in the plan.

# Resumé

### **Singapore Tourism Board – Mandai Conceptual Master Plan**

Singapore, 2008. Principal in Charge. PJA led a multi-disciplinary team that included theme park/hotel architects, theme park business planners, civil engineers, wildlife specialists, and ecological consultants to develop a master plan for an 80 acre nature based, family oriented, life style theme park that would be a 4th gate attraction at Mandai. The new park will include activities, native wildlife experiences, hotels, dining, retail, and a discovery center. The theme park will be developed and operated by private enterprise.

## Project Experience 4

### **National Zoo - Master Plan**

Washington, DC, 2006-2008. Principal in Charge. The master plan for the National Zoo was developed by a multi-disciplinary team that included a campus planning firm, a zoological design firm, civil engineering, landscape architects, environmental compliance firm, and operations consultants. The proposed improvements will be implemented in the next ten years and include visitor and service circulation, infrastructure upgrades and improvements, parking revisions, additional and improved visitor services and future animals exhibits.

### **Windows to Africa – Safari Park & Resort**

Hainan, P.R. China, 2007. Principal in Charge. An entirely new safari park on Hainan Island, the only true tropical habitat in China. The park includes resort style lodging, animal exhibits, entertainment venues, and a major restaurant. The African safari includes animals from all major biomes and is viewed from a thematic safari vehicle. The coastal portion of the park includes exhibits of marine life, including penguins in an indoor environment.

### **Dallas Zoo - Wilds of Africa II**

Dallas, Texas, 2007. Principal Landscape Architect. Development of a concept plan, infrastructure plan, and cost estimate for a 10-acre African savanna exhibit on land currently not being used to exhibit animals. The project will exhibit multiple animal species in a simulated African landscape setting. The visitor amenities include a viewing pavilion with restrooms, two giraffe feeding stations, a demonstration area, a water play area, and a special events tent with restrooms.

### **Ocean Park Hong Kong - Polar Adventure**

Hong Kong, P.R. China, 2012. Principal Landscape Architect. A totally new immersive animal experience, the Polar Adventure will take visitors on a journey through the landscape and native animals of the north and south pole. Huge natural looking pools will exhibit walrus, seals, and beluga whales, free-flight birds will soar in the enormous domed roof, and penguin species will be experienced from above, below, and in the water.

### **Hangzhou Safari Park – Polar Adventure/African Savanna/Discovery Center**

Hangzhou Safari Park, P.R. China, 2006. Principal in Charge. The design and development of these three precincts in the park marks the implementation of the master plan completed in 2005. Each of the large new areas includes exhibits of animals by geographical location, and the Discovery Center is an indoor activity center specifically designed for young children. It includes learning spaces, small animal exhibits, parallel play areas, and fun elements in immersive settings that replicate underground, terrestrial, and arboreal habitats.

### **Jackson Zoo – African Savanna**

Jackson Zoo, Mississippi, 2005-2006. Principal. Designed to utilize currently undeveloped land in the zoo, the new African exhibits will include elephants, giraffe, lion, and hoofed stock in a free-range situation. The animals will appear to be occupying the same space, but will be separated by hidden barriers.

# Resumé

### **Genda Giant Panda Park – Master Plan**

Wolong Giant Panda Breeding Center, P.R. China, 2006. Principal. This new park, nestled within a narrow valley in the Wolong Nature Reserve, will provide captive habitats for more than 40 Giant Panda. The park includes a remote new breeding center for the animals, a native plant botanical garden, a ground tram, walking trails, and aerial tram experience for the visitors, restaurants and gift shops, an interpretive hall and a multi-media entertainment theater.

### **Jurong Birdpark – Master Plan Update/South American Exhibit**

Jurong Birdpark, Singapore, 2006. Principal. The new master plan builds upon the foundations set in the original plan by PJA and introduces new areas that highlight geographical regions not currently exhibited in the park. The schematic design for a new South America exhibit includes small mammals not typically exhibited at the Birdpark in order to present a more comprehensive and authentic visitor experience.

### **Summit Park - Master Plan**

Panama City, Panama, 2005. Principal Landscape Architect. PJA, at the request of the Mayor of Panama City, is developed a Master Plan to help take Summit Park through privatization. The Master Plan focused on separating the existing zoo and botanical garden into two distinctive elements. Given the proper attention they deserve, the zoo can focus on new, exciting regional animal exhibits while the botanical garden can address its unique history.



## Project Experience 5

### **Hangzhou Safari Park - Master Plan**

Hangzhou, P.R. China, 2005. Principal in Charge/Principal Landscape Architect. The design for this 600-acre park emphasizes large naturalistic exhibits that provide the animals with species-appropriate enrichment. The Master Plan includes tram rides, a botanically inspired amusement park, a Discovery Center that exhibits small animals, and a Recreation and Retail District.

### **Melbourne Zoo - A Journey Through South East Asia**

Melbourne Zoo, Melbourne, Australia, 2004. Principal in Charge. The second phase of the Asian Precinct, which began with the design and construction of the Trail of the Elephant exhibit in 2003, includes master planning the entire precinct and exhibit designs for orangutan, gibbon, and Sumatran tiger. The orangutan exhibit recreates a modern-day rescue centre and combines fully enclosed and open exhibit areas that complement animal management and natural behavior.

### **Wolong Panda Conservation and Institute**

Wolong Giant Panda Breeding Center, Sichuan, P.R. China, 2004-present. Principal in Charge. Developed by a non-profit environmental fund, the 60-room "ecolodge" will immerse guests in the environment and indigenous cultures of the Wolong Nature Reserve. Guest programs will include: behind-the-scenes tours of the Breeding Center, guided hikes to panda reintroduction areas, field trips to indigenous Tibetan and Qiang villages; and guided nature tours.

### **Pine Jog EEC - Interpretive Trail "A Walk Through Time"**

Pine Jog Environmental Education Center, Florida, 2003. Principal in Charge. As an interpretive trail for this 150-acre sanctuary, this project includes games, graphics, and architectural components that interpret the nature of Florida and the effects of development on the environment for organized classes and the casual visitor. A Welcome Center and an Educational Pavilion are examples of sustainable green architecture.

# Resumé

### **Mill Mountain Zoo - Tiger Tales**

Mill Mountain Zoo, Roanoke, Virginia, 2003. Design Principal. The new Amur Tiger exhibit creates a new precinct within the zoo that celebrates the tiger and creates interactive interpretation stations throughout the exhibit. The wall of windows is whimsical and fun, the gateway is steeped in cultural mystery, the forest cabin offers shelter and information whilst tigers are seen underwater swimming in a pool at the base of a waterfall.

### **Virginia Zoo - Master Plan**

Virginia Zoo, Norfolk, Virginia, 2004. Principal in Charge. The Master Plan takes an innovative direction regarding zoogeographic organization and interpretation that emphasizes animals and interactivity as planning criteria.

### **Columbus Zoo - Master Plan & African Plains Update**

Columbus Zoo, Ohio, 2004. Principal. The Master Plan for the Columbus Zoo includes the development of newly acquired land, the expansion of the adjacent water park, a new entry and new biogeographic exhibit zones.

### **Columbus Zoo - Asia Quest**

Columbus Zoo, Ohio, 2003-2006. Resource Principal. Comprehensive design services for a Central Asia experience. The project represents five separate habitats, exhibiting Malayan sunbears, red pandas, pheasants, markhors, and Amur tigers in habitats which include cultural references and conservation messages.

### **Wolong Panda Breeding Center - Giant Panda Habitats**

Sichuan, P.R. China, 2003. Design Principal. This renovation of the antiquated breeding and animal care facilities will emphasize the natural habitats and improve the interpretation of the breeding activities that occur at this world renowned center for panda conservation. This project is the implementation of the first phase of the Interpretive Master Plan completed in 2002.

### **Wolong Panda Breeding Center - Interpretive Master Plan**

Sichuan, P.R. China, 2001-2002. Design Principal. An interpretive plan for the breeding center in order to provide educational information to tourist visitors from around the globe.

## Project Experience 6

### **Toronto Zoo - Canadian Wilderness Feasibility Study and Interpretive Plan**

Toronto, Ontario, Canada, 2003. Design Principal. The animals and environments of the Canadian Wilderness Experience will create a new precinct of the zoo that focuses on native species, national conservation efforts, and in-situ programs supported by the zoo. The unique biomes, the cultural diversity of the aboriginal peoples, and the impressive animal adaptations to the harsh climatic conditions of Canada will be explored by the interpretive storyline and exhibitry.

### **Milwaukee County Zoo - Feline/Pachyderm Exhibits**

Milwaukee, Wisconsin, 2003. Resource Principal. A renovation of existing pachyderm and feline exhibits that will improve public viewing and provide adequate space for the animals during the winter months. The new exhibits will include natural substrates, live plants, water features and animal enrichment components.

### **Kaieteur National Park - Eco-Tourism**

Georgetown, Guyana, 2002-2004. Working with Conservation International, the Guyana Ministry of Tourism, the Guyana National Parks Board, local environmental organizations, governmental agencies and a team of North American tourism leaders, the workshops evaluated tourism potential and recommended design guidelines for the development of lodging facilities in the national park.

### **Kent County Wildlife Park - Master Plan**

Grand Rapids, Michigan, 2002-2003. Design Principal. Concept master plan for a 180-acre wildlife park in central Michigan. The park will focus on northern tier species representative of the boreal forest, taiga, tundra, temperate rainforests and northern steppe biomes.

### **Caldwell Zoo - New Entry Exhibits**

Tyler, Texas, 2000-2001. Design Principal. These new exhibits create a panoramic view of the zoo at the entry and symbolize the distinct regions represented at the zoo. The exhibit species include Chilean flamingos, lemurs, and roseate spoonbills.

# Resumé

### **Melbourne Zoo - Trail of the Elephant**

Melbourne, Australia, 1999-2003. Design Principal. An interactive exhibit featuring Asian elephants ranging over a 5-acre site. The project incorporates thematic presentations of Asian culture and asks questions about the conservation of habitat and the plight of working elephants.

### **San Diego Wild Animal Park - Heart of Africa**

San Diego, California, 1999-2001. Schematic design for an immersion exhibit into the plains of Africa where the visitor walks through herds of savanna animals, free-flight aviaries, and comes face to face with predators.

### **San Diego Wild Animal Park - Kopje Center/Tent Camp**

San Diego, California 1999-2000. Design Principal. Concept design for a retail center to complement the Heart of Africa, which included shops, cafes, and a fine dining restaurant. The tent camp provides overnight housing for guests wishing to immerse themselves in the African night.

### **Taronga Zoo - Asian Forest Precinct**

Sydney, Australia, 1999. Design Principal. Developed concept and schematic design for the exhibit to include Asian elephants, tapirs, otters, a bird aviary, and primate exhibits.

### **Reid Park Zoo - Master Plan**

Tucson, Arizona, 1999. Developed a master plan for the expansion of the zoo and the reconfiguration of exhibits throughout the zoo. The plan illustrates the integration of an interpretive storyline and physical plan of the zoo.

### **San Diego Wild Animal Park - Condor Ridge**

San Diego, California, 1999-2000. Design Principal. Exhibits for California condors, Aplomado falcons, thick-billed parrots, black footed ferrets, prairie dogs, burrowing owls, and desert bighorn sheep that interpret the North American reintroduction efforts of the park.

### **San Francisco Zoo - Lemur Forest**

San Francisco, California, 1999-2002. Design Principal. Exhibit design and construction observation for a free-range exhibit for five species of lemurs that included a visitor boardwalk for canopy viewing and flight-cages for isolation of lemur groups.

## Project Experience 7

### **San Francisco Children's Zoo - Contact Area/Meerkat-Prairie Dog Exhibit**

San Francisco, California, 1999-2001. Design Principal. Work included master planning for an expanded children's zoo, exhibit design, building design, and construction observation. The interactive exhibit design includes feeding devices, play elements, and simulated underground viewing.

### **John Ball Zoo - Chimpanzee Exhibit**

Grand Rapids, Michigan, 1999-2001. Design Principal. This exhibit for chimpanzees created a tropical looking habitat in an existing temperate forest and provided a multi-story exercise room for the animals during winter months.

### **San Francisco Zoo - Pachyderm Feasibility Study**

San Francisco, California, 1998. Project Manager. This study developed preliminary concept designs for rhinos and elephants in order to establish a budget for future improvements at the zoo.

### **John Ball Zoo - Master Plan Update**

Grand Rapids, Michigan, 1998. Project Landscape Architect. The plan update incorporated additional species and an expansion of the existing zoo boundaries in order to accommodate elephants.

### **Disney's Animal Kingdom**

Walt Disney Imagineering, Walt Disney World, Orlando, Florida, 1992-1998. Senior Project Landscape Architect. Involvement from conceptual design through construction, dealing with all animal facilities and exhibits, including art direction of natural features and plantings. This was a full time commitment for five years at the clients offices in California and the site in Florida.

### **Arizona Sonora Desert Museum - Desert Grassland Exhibit**

Tucson, Arizona, 1991-1993. Project Landscape Architect. An exhibit that highlights the importance of habitat in the conservation of native species. The live animal exhibits include an ant colony, prairie dogs, burrowing owls, rattlesnakes, and other reptiles.

# Resumé

### **Arizona-Sonora Desert Museum - Master Plan**

Tucson, Arizona, 1991-1993. Project Landscape Architect. The Master Plan set this world renowned natural history park in a new direction that interprets all of the subdivisions of the Sonoran Desert.

### **Houston Zoo - Wortham World of Primates**

Houston, Texas, 1990-1992. Project Landscape Architect. This major new precinct at the Houston Zoo replaced the old "monkey house" with a zoo-geographic organization of the zoo's existing primate collection. The new habitats are outdoor mesh enclosures which are viewed from an elevated boardwalk, as well as an open moated habitat for orangutan. It is an international primate collection that includes titi, tamarin, howler, mandrill, patas, colubus, red-capped magabey, langur, siamang, and ring-tailed and red-ruffed lemur.