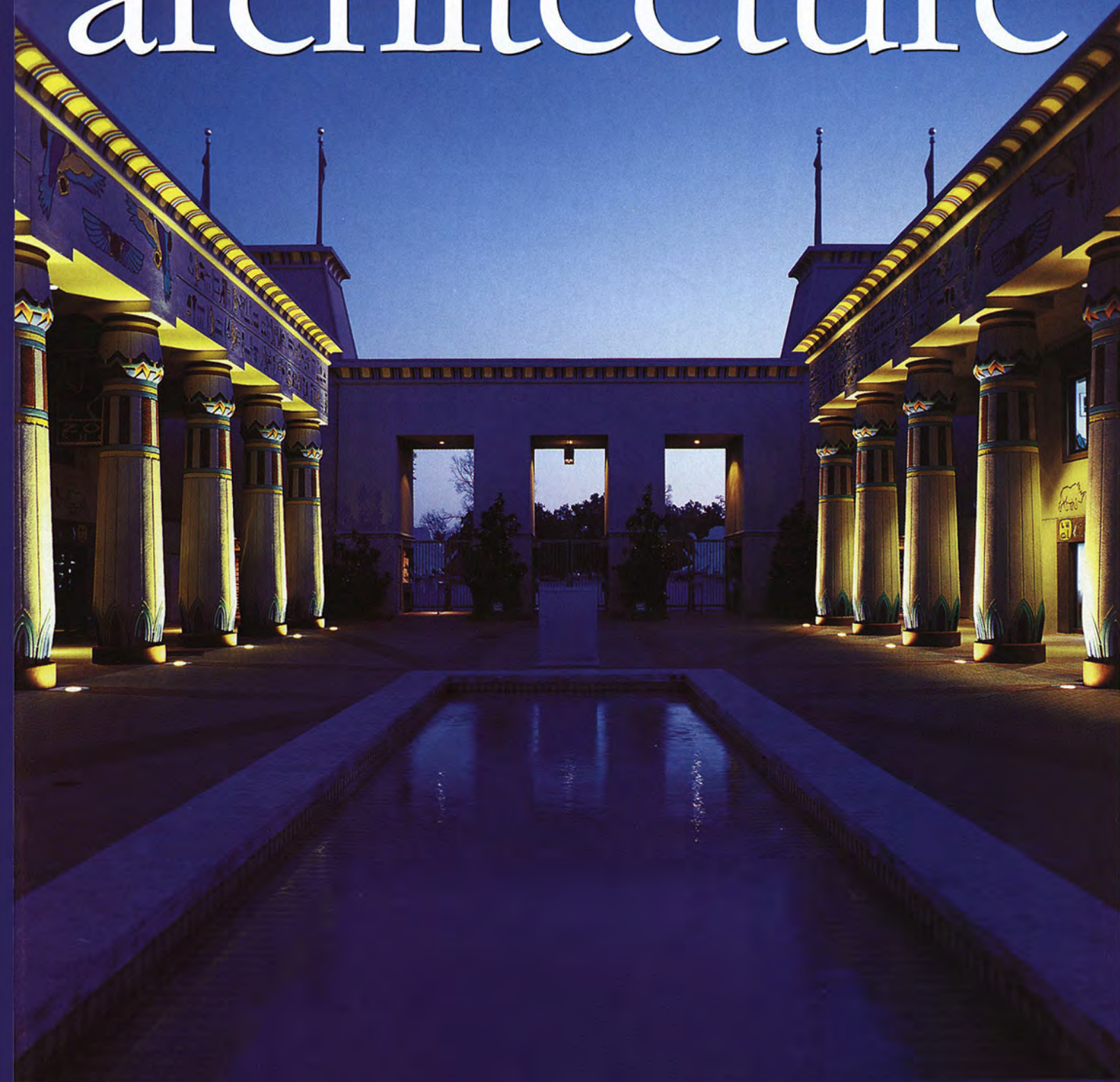


# landscape architecture

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# Out of Egypt

*In Memphis, Tennessee, the new zoo—designed by Ace Torre of New Orleans's Design Consortium, Ltd.—takes its inspiration from the temple of Memphis, the capital of the Ancient Kingdom.*

BY JANE BROWN GILLETTE PHOTOGRAPHY BY ALLEN MIMS

Comparisons are odious, or at least they so frequently seem to be that we may harbor dark expectations when confronted with the invitation to compare. Unwary visitors to the zoo in Memphis, Tennessee, may expect to experience disappointment when faced with the extended metaphor of Old Memphis/New Memphis that defines the \$30-million renovation project. Certainly the very contrast between the architecture of the capital (3300 B.C.—300 A.D.) of the Ancient Kingdom and a zoo in Overton Park—even one with an exceptional entrance, four major new exhibits, and plans to extend itself from thirty-six to seventy-two acres—provides the opportunity for comparison: Wasn't the temple of Memphis—no longer in existence—an immeasurably greater expression of a much grander civilization? But let unwary and ironic visitors beware; as explained by L. Azeo Torre, FASLA, the

*THE RUINS of Angkor Wat—enhanced by mist and creative rock work—provide an imaginative habitat for the zoo's Sumatran tigers.*



irrepressibly enthusiastic landscape architect responsible for the master plan and the ongoing restoration, the Memphis Zoo becomes not the weak expression of a diminished present, but a beautiful and valid statement of the best values of our own culture. How can we say such a thing about a zoo?

**T**orre, known as Ace, did not start out planning zoos, but now his New Orleans firm of Design Consortium, Ltd., has designed the master plans for twenty-four zoos across the country. Understandably, Torre is a big fan of zoos, of their role in urban life and their educational potential. "More people go to zoos each year than to all professional sports combined. So when you see these big four-hundred-million-dollar downtown stadiums, and then you look at the benefits for the public compared to cost—," Torre leaves the conclusion hanging in the air for a moment. "There aren't two million people in that new Cleveland stadium, but there would be at a zoo for a fraction of the cost."

The democratic nature of the zoo is at the center of Torre's philosophy of planning zoos. "When I was in college I was your average wild hippie follower of a new direction, blows against the Empire, and all that." As for zoo design: "What a perfect thing to eventually move into!" He sees the potential "of a facility that can realize the regional population base, serve every sector of society, every age, every race," a facility that is family-oriented: "You grow up with the facility from going with your parents to taking your grandchildren, and it's operated at the cost of not a penny to the public."

Torre envisions this ideal facility as using the excitement of the amusement park for educational purposes: "We're big believers in making it exciting enough until the experience is recognizable for everybody. Because if you don't do it, no matter how much you demand people to respect this, they won't. A lot of this is driven by what we call painless learning." In contrast to the amusement park, however, the zoo offers knowledge and direction. The new type of zoo can "take on these broader story lines, deal with bigger issues. We'd like to believe that when people leave here they're a little more bent toward environmental citizenry, [toward] issues that affect them locally and globally. We have to offer an experience of depth. If you go to Disneyland or Disney World, and you're not thinking about anything but Goofy or Mickey, that's a wonderful thing, but you haven't come away *more*."

The perfect designer for this extremely ambitious type of facility is, according to Torre, the landscape architect.

**R**oger Knox, the president of the Memphis Zoological Society, which manages the zoo for the city, recalls that plans for the much-needed renovation (there hadn't been a new exhibit in seventeen years) began in the mid-1980s when Torre's firm was hired by the city and an interested group of citizens. The group, which later merged with the Society, raised \$11 million in private funds, a sum that was augmented by \$16 million from the city and



TORRE DOUBLED *the traditional single Egyptian pylon and added a connector to create the zoo entrance and an M-for-Memphis logo.*

## The avenue recalls at once the mile-long Avenue of the Sphinxes—and Noah's Ark.

\$5 million from the state. The plan languished for a few years, expanded and picked up momentum in 1989, and is now one-third complete. Says Knox, "The plan and the exhibits look great, but the zoo works great, too." (Currently the Memphis Zoo is attracting 850,000 visitors a year; the goal is one million.)

In part the zoo works because the entrance areas—the Avenue of the Animals, the entrance pylon, the hypostyle court, and the Nile Court—offer a meeting place for large groups, something many zoos lack. It also works because, thanks to the entrance, visitors are experiencing an exhibit as soon as they get out of their cars. And,

never been revoked. "Even though theoretically they will never build the expressway," says Torre, "we still couldn't build anything that would preclude it." The impossibility of constructing a permanent building encouraged the development of the Avenue of the Animals, a double row of six pairs of stylized white precast-concrete creatures—lions, rhinos, elephants, hippos, apes, and alligators. The avenue recalls at once the mile-long Avenue of the Sphinxes in ancient Memphis—"Ours is only two hundred feet," admits Torre—and the pairs of animals in Noah's Ark, which today's zoos mimic in their conservation activities.

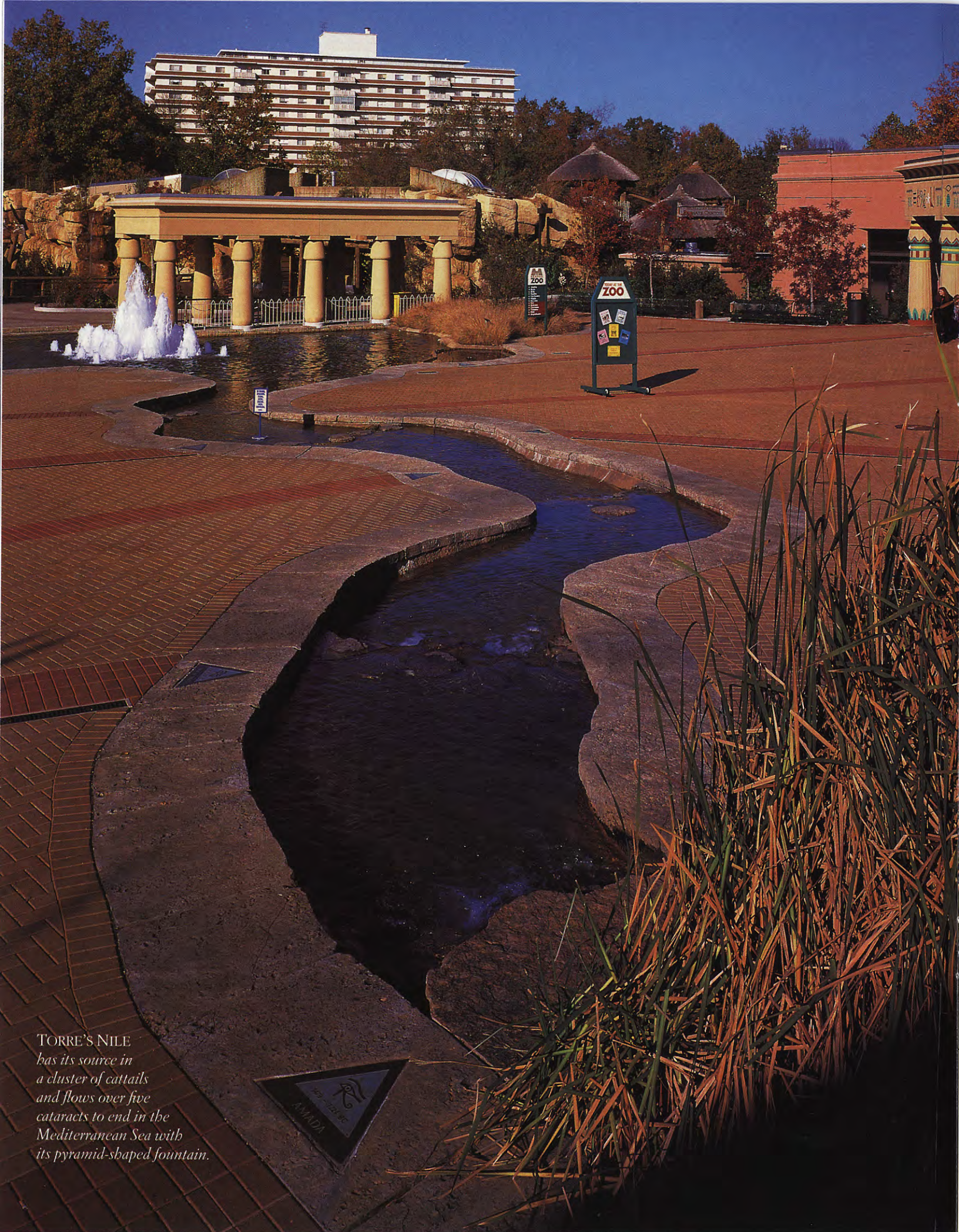
most of all, it works because of the design. From the second they see the entrance visitors are drawn into an imaginative event.

The energy of the design originated in the mid-1970s when Torre interrupted a two-year residency at the American Academy in Rome as a fellow in landscape architecture with a two-month sojourn in Egypt. When the Memphis-to-Memphis idea emerged, Torre drew on his memories, his knowledge, and his "romantic attachment" to Egypt. A minor consideration, one that a lesser designer could have easily ignored, was the existence of the zoo's two Egyptian Revival buildings, the cat house and the elephant house (both begun in 1909). In their current state the two buildings add another layer to the visitors' experience, although one not presently exploited in signage: This is what people in Memphis, Tennessee, in the early twentieth century thought Egypt looked like. ("If you really stretch it, if you hold a hand over one eye, if you've been drinking the night before, you might say there's a little Egyptian there," says Torre.) More important, the cat house—actually a steel-frame building attached to the original front and back facades in a seismic remodeling—provides one end of the ceremonial axis that begins in the parking lot.

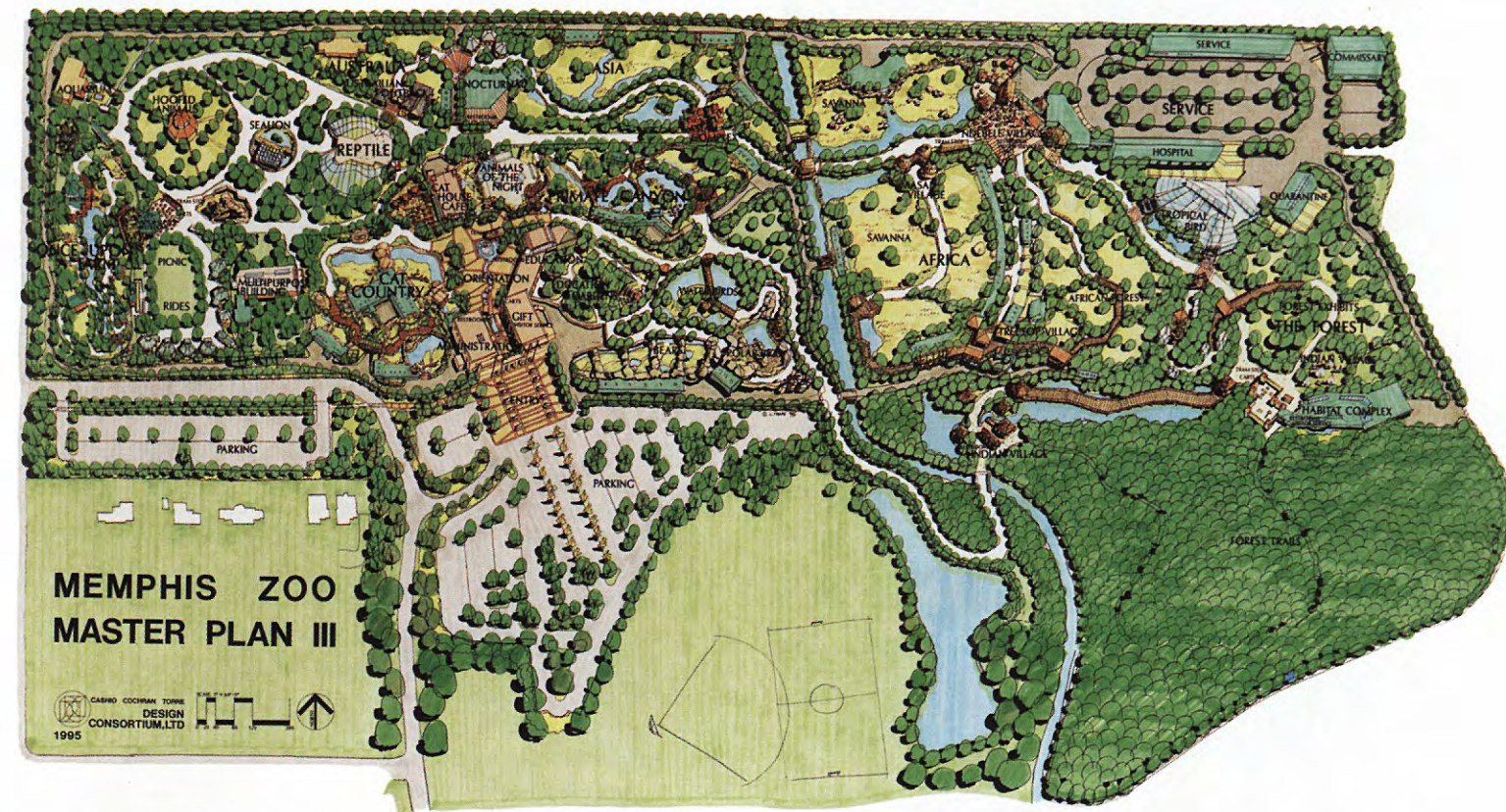
As the ancient Egyptian temple complex structured the experience of the worshipers along a linear path that moved from the public arena to the inner sanctum, so too does the entrance complex of the Memphis Zoo move the visitors from their arrival in the parking lot to their arrival at the exhibits, all the while enhancing their experience.

One consideration affecting the design was that the end of the parking lot closest to the zoo and the beginning of the Avenue of the Animals lie over the old Interstate 40 right-of-way. A neighborhood group successfully defeated the proposed section of the highway that was to run through the park, but the right-of-way has





TORRE'S NILE has its source in a cluster of cattails and flows over five cataracts to end in the Mediterranean Sea with its pyramid-shaped fountain.



The Avenue ends at the entrance pylons. Torre doubled the single pylon of the Egyptian form (familiar to Americans through its use in nineteenth-century cemetery design) and added a four-columned connector that incorporates the three ticket booths and gated entrances and additionally creates an M, the form of which is emphasized by the use of the battered wall. (The M furnishes the popular logo for the zoo.) This polychromed structure, which resembles concrete and even brings stone to mind, is actually a steel-frame building covered with EIFS (exterior insulation finish system) that was incised with hieroglyphic and pictorial messages developed in conjunction with the Memphis

State Department of Egyptology. (The hieroglyphs were incised on styrofoam panels with a hot wire; the EIFS was applied like plaster and pushed into the incisions. Later the details were painted.) The pictorial elements include two large vultures that safeguard the zoo's inhabitants (the vulture symbolized protection in ancient Egypt) and a mural showing the ceremonial presentation of the zoo by the City of Memphis to its citizens: The zoo is represented by rows of hieroglyphiclike animals, the citizens by male and female figures standing together, and the city by a central male figure. Above, just below the cornice, runs the zoo's mission statement, written by Torre in hieroglyphics.

THE MASTER plan, above, is one-third actualized. Within many of the enclosures actual tree trunks provide entertainment for the animals, below left; less than a year old, Once Upon a Farm, below center, is a new exhibit aimed at teaching children about the lives of humans and animals on an American farm; a replica of the Rosetta Stone, below right, educates visitors about hieroglyphics—and how they came to be translated.



DESIGN CONSORTIUM, LTD., TOP



As in most contemporary  
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This passage is translated below on bronze plaques from which visitors who are queued up for tickets can learn about hieroglyphs and the Egyptian point of view in typically imaginative Torre fashion. First, the English statement of the mission is printed, then translated into hieroglyphics, and then the hieroglyphics are literally translated into English so that we can get the true flavor of the Egyptian. "Within these portals is the wealth of flora and fauna which comprises our global existence" becomes "A wealth of plants and a wealth of creatures, large and small, which encircles everything, are in these portals." "It is presented here for our education and enjoyment" becomes in translated Egyptian English "May one present them in order to cause that our hearts delight in them." "It is the treasure of life" becomes "They are the excellent things in life." And "Our responsibility is to offer understanding, conservation, and acknowledgement of its existence as a complement to ours" becomes "It is a thing in harmony with the divine plan to offer understanding, protection, and recognition of their existence as a partner."

Perhaps there is no better evidence than this plaque of the notion that to compare two things produces not odium but consciousness-raising.

Once visitors are through the entrance portal they find themselves in Torre's interpretation of a hypostyle court (it lacks a roof and one wall), which is composed of two colonnades of polychromed Egyptian-style columns that front the administration building on the one side and the gift shop on the other. The gift shop is tied to the education building (the old Egyptian Revival elephant house) by a colonnaded wing of classrooms that borders the central plaza on a diagonal. In the distance visitors can see the Cat House Cafe, but they are separated from the end of the main axis by a replica of the Rosetta Stone, a reflecting pool, an obelisk, and a water feature that flows through a spacious plaza from which the major exhibits stem.

The first three of these interruptions are fairly straightforward elements that serve to educate the public about Egypt and provide visual focus. The Rosetta Stone, which was inscribed in ancient Memphis in 196 B.C., was found in 1799 in Rosetta, Egypt, and provided the means of deciphering hieroglyphics. The replica stands before an obelisk, which seems too short for the site when viewed from the entrance but at closer range assumes a proper proportion to the reflecting pool. The pool is edged in gold and lapis lazuli and resembles a necklace worn by a pharaoh.

The water feature is anything but straightforward. Torre has used the six-foot drop in grade between the (Continued on Page 96)

PLANTINGS AND unobtrusive cage design merge animal and visitor spaces, above; the lions enjoy their enclosure, complete with artificial termite mound and heated rocks for lounging, center; the 1909 Egyptian Revival elephant house, bottom, now houses the education center.



THE OBELISK, constructed of EIFS, stands close to the source of Torre's Nile.



## Out of Egypt

(Continued from Page 72) hypostyle court and the Cat House Cafe to create a representation of the Nile. Although the stream brings to mind Isamu Noguchi's California Scenario in Costa Mesa, California, it manifests a playful spirit that acknowledges and hence disperses any tension generated by a comparison: The real Nile was never like this! Its source beginning in a cluster of cat-tails near the obelisk, the Nile twists and turns downstream to the Mediterranean Sea, a pool dominated by a fountain of pyramid-shaped water jets and backed by a temple that serves as a zoo tram station. At intervals five little waterfalls represent the cataracts of the Nile and provide some dry stones on which children and lighthearted adults can cross from bank to bank. Along the banks triangular bronze plaques embedded in the paving mark the locations of the great cities of Egyptian civilization from Abu Simbel (1290–1224 B.C.) near the source to Memphis and Alexandria (332 B.C.—present) in the delta. (Port Said is situated slightly behind the tram station as if to admit that it isn't an ancient city.) Each bronze plaque incorporates the eye-shaped hieroglyph of the god Udjat, who, as Torre says, "overlooks the safety and protection of the cities of antiquity."

Having reached the inner sanctum of the zoo on their arrival in front of the Cat House Cafe, the visitors can now move on to the exhibits. To bring visitors back repeatedly the zoo must introduce a new exhibit every year or two; still, Cat Country, the oldest of the new exhibits, remains perhaps the best because enough time has passed for the vegetation to come into its own. As in most contemporary zoos animal satisfaction is of the highest consideration, as is the visitors' experience of the animals. Cages are gone, and everything is done to conceal the means of separating the animals from the humans—what the zoo business calls "immersion exhibitry." Cat Country opens with a temple that conceals the frames of the enclosures of the lions and the fisher cats. Wire stretched to a pressure of 2,000 pounds proves at once strong and virtually invisible. (It held a lion that leaped for the mayor during the dedication ceremony.) Farther into the ex-

hibit other cages are framed in vines and sphagnum boxes that for three seasons of the year promote flourishing vegetation. The growth hides the framework of these cages, which house—another nice touch—cat prey as well as cat predators. Planting, as in all exhibits, is representative of native habitat and—to promote immersion—intrudes into the visitors' space. In the spectacular tiger enclosure fog rises from a ruin

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that resembles Angkor Wat, while a little stream of water drips into one edge of the visitors' space.

The rock work by the Larson Company of Tucson, Arizona—from the artificial termite mound in the lions' enclosure to the extensively detailed temple ruins—is critical in establishing the atmosphere of the cages. (Design Consortium, Ltd., produced more than 700 sheets of drawings for the zoo, including detailed drawings of the murals and rocks.) Throughout the exhibits variations in color and types of rock establish different rhythms and moods, yet Torre stresses that even the best rock work should be only fifty-percent exposed and that it takes from five to eight years for vegetation to grow to an optimum stage. "You'd always like to do these exhibits bigger and more lush, but you're also bound by realistic budgets to make sure that you give enough complexity to all of the facility so that it'll be attractive to enough people." The Memphis Zoo charges only \$6 for admission, or \$40 for a family membership, so exhibits take a little longer to reach a desirable stage than they do at a facility like Busch Gardens in Tampa, which can afford to install larger plants initially.

Using an existing building also saves money; Torre put the old monkey house to good use for the Animals of the Night exhibit in which black light reveals such nocturnal creatures as the Goliath bird-eating spider in their element. The old cages provide interpenetrating vistas, and the whole is unified by a central cage of glass and artificial tree

trunks that houses 350 Jamaican fruit bats. A ceiling of heavily fire-treated branches completes the disguise of the old structure.

Cat Country offers hope for the newer exhibits of Primate Canyon and Once Upon a Farm, which have not yet grown into their own. But even without vegetation to speak of, Torre's transformation of the children's zoo into an exhibit featuring domestic animals and "Smithsonian type" displays of farming artifacts and processes—including a patch of cotton, a horse-watering trough, and a chicken coop—deserves accolades.

A little train, carefully separated from the exhibit it encircles, passes over a covered Tennessee bridge. Under the bridge lies the only unrestricted entrance. At the top of the facility, entrance is also afforded through a restaurant with a large observation deck that overlooks the whole exhibit. This arrangement is important because it permits adults to remain on the observation deck and watch their children, who are thus given some necessary freedom to safely explore the facility on their own. Parents can also easily keep an eye on the unrestricted tunnel entrance.

The Memphis Zoo proves to be a particular treat because the painless learning it inspires is not just about nature but also about culture. The many manifestations of human life in the exhibits—the fishing village on the Zambian River that opens Primate Canyon; the Moroccan tent motif in the Cat House Cafe; Tokyo's Imperial Palace, which dominates the macaque enclosure; the American farm of Once Upon a Farm; the ruins of Angkor Wat in Cat Country—are not mere stage sets but expressions of the theme that man is part of the natural web. As we visitors learn the habits of animals we also see the habitats of man. And we see them in both flourishing and ruinous manifestations as if to underscore the fact that the processes of nature also apply to civilization. Thus the zoo as a whole becomes an illustration of two of Torre's favorite—and often-quoted—sayings: Chief Seattle's 1850 dictum, "This we know: All things are connected like the blood which unites us. We did not weave the web of life, we are merely a strand in it. Whatever we do to the web, we do to ourselves;" and a passage

from Baba Dioum, from Senegal, Africa, that is written in hieroglyphics on the frieze of the classroom wing: "In the end we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught." LA

### PROJECT CREDITS

**Landscape architects/master plan:** Design Consortium, Ltd. (L. Azeo Torre,

FASLA, principal-in-charge and landscape architect; Jeffery C. Borchardt, associate, project manager; Chuck Crawford, ASLA, project landscape architect; Bob Bennett, project architect; George Hero, Jay Britsch, Kerry Ryan, Louis Savoye, staff architects; Luis Guevara, Tom Bulloch, Randy Aultman, Don Boudreaux, staff landscape architects).

**Client:** The City of Memphis and the Memphis Zoological Society.

**Engineers:** Ellers, Oakley, Chester, & Rike, Memphis (Lee Schulz, project manager).

**Contracting:** Entry: Heirigs Construction Company, Inc.; Cat Country, Administration Building, Primate Canyon, Cat House Cafe, and Animals of the Night: Mayer Construction Company, Inc.; Plaza, Gift Shop, and Education Building: Inman Construction Corporation; Once Upon a Farm: Grinder Brothers Construction Company, Inc.