

# GREEN BUSINESS QUARTERLY

MARCH/APRIL 2010

## REFRESHING AN INDUSTRY

A look into the sustainability goals of Coca-Cola Enterprises

## THE BENEFITS OF LIFE-CYCLE ANALYSES

Creating positive change by eliminating inefficiencies in the marketplace

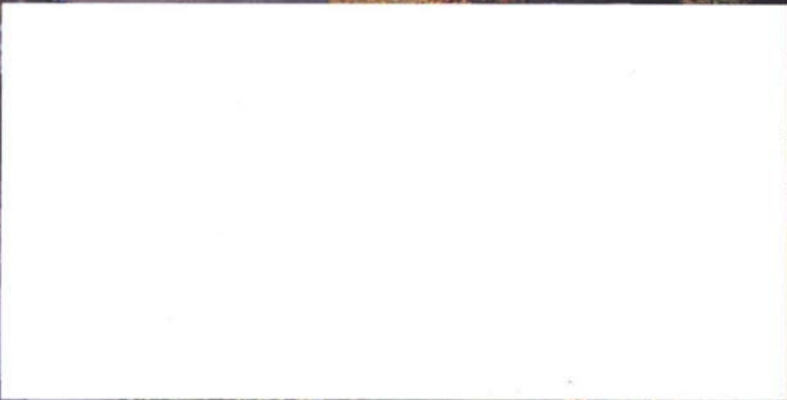
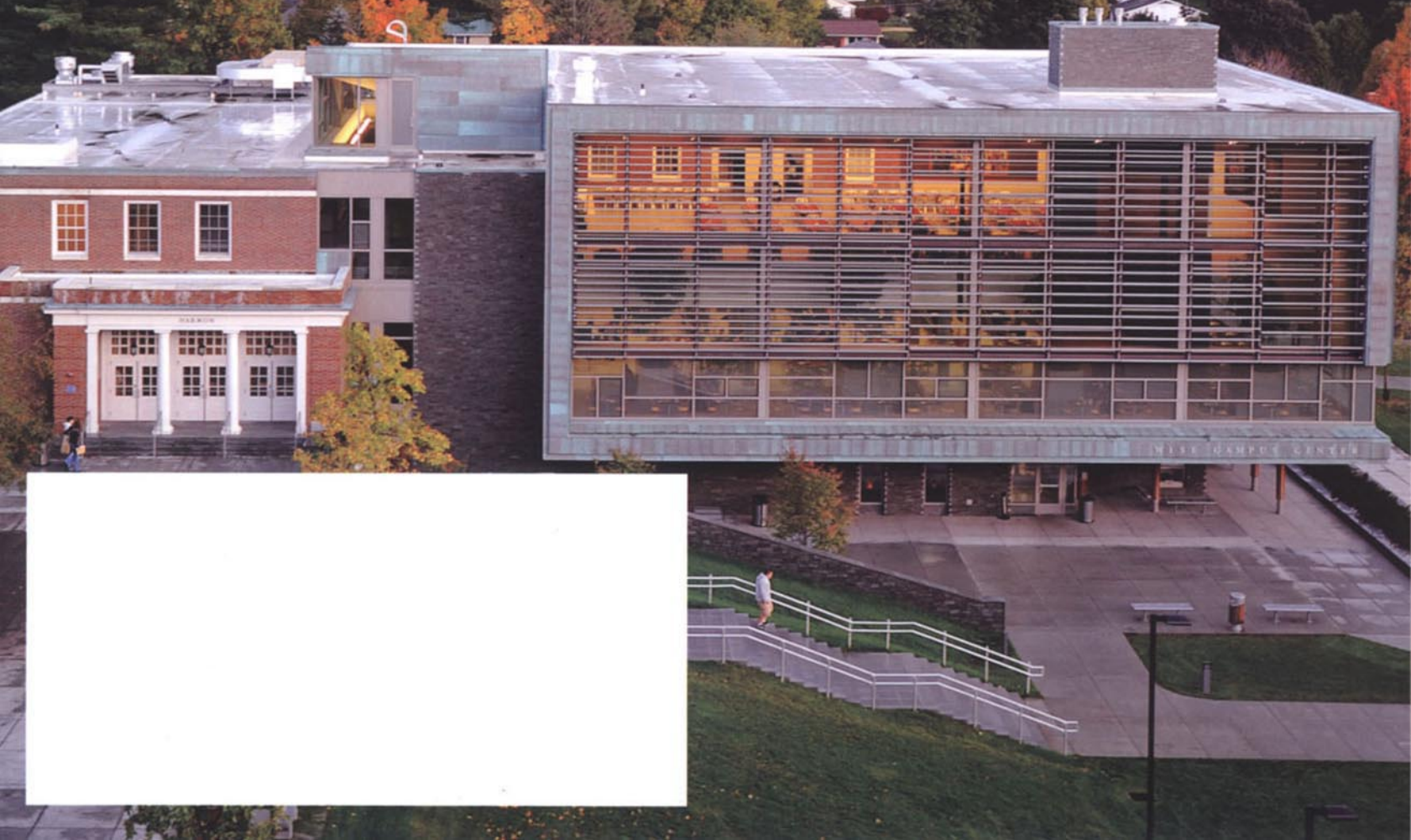
# NORWICH UNIVERSITY

Green policies at nation's oldest military school reduce costs and increase marketability



## MAKING THE GRADE

Sustainability initiatives of colleges & universities in the Northeast US



## TECHNOLOGY & INNOVATION

- 17 **ARNOLD IMAGING**, a firm known for its interactive environments that have helped market sustainable urban development, is now turning its technical know-how to a proposed museum exhibit about a greener, cleaner future.
- 19 **CURRENT ENERGY SYSTEMS**, based in Dallas, designs software to monitor and control existing equipment to save businesses thousands of dollars on utility bills.
- 21 **RETROTECH INC.** is an engineering services firm that designs, modernizes, and supports automated storage-and-retrieval systems, which are commonly used in manufacturing and distribution operations.

## LANDSCAPES & URBAN SPACES

- 23 **LANDDESIGN, INC.** seeks to utilize best management practices that minimize environmental impact and mimic the most natural condition of a site before it is developed.
- 26 **M. PAUL FRIEDBERG AND PARTNERS LLC** is a 50-year-old pioneering architecture firm in New York City that develops innovative green urban landscapes despite the city's limited space.
- 28 **RESTORATION DESIGN GROUP**, a California-based landscape architecture firm, focuses on the restoration of waterways to help preserve the environment.

## COMMUNITY DEVELOPMENTS

- 30 **DISCOVERY AT SPRING TRAILS**, designed to contain 3,000 environmentally sound, economically healthy, and resource-efficient homes, is Land Tejas Companies' latest development in Houston.
- 32 **WEATHERFORD PLACE**, constructed by Cadmus Construction, is a residential development in Roswell, Georgia, featuring eight custom-built, LEED Platinum homes in the firm's signature EcoCraft Hybrid Home style.
- 35 **BLACK MOUNTAIN RANCH**, the 4,660-acre development in San Diego, has overcome various difficulties and adversities to create a sustainable community with the city's first LEED Platinum building.

## ARCHITECTURE & DESIGN

- 65 **GEIER BROWN RENFROW ARCHITECTS LLC**, based in Alexandria, Virginia, is well known for taking the environment into account when designing its institutional and commercial projects.
- 68 **HSE ARCHITECTS, LLC** looks for opportunities to make every project as green as possible while continually educating clients about the benefits of designing green.



*This 3D model provides educational information on water issues using interactive displays at The Aquarium of the Pacific.*

- 71 **THA ARCHITECTURE** is a Portland, Oregon-based firm that is focused on designing beautiful buildings for its clients while making sustainability a top priority.

## BIODIVERSITY INITIATIVES

- 74 **THE AQUARIUM OF THE PACIFIC** brings together scientists, educators, and community leaders to raise awareness on environmental issues concerning the world's oceans.
- 76 **TORRE DESIGN CONSORTIUM** has been a key player over the past 30 years in creating natural-habitat immersion environments for zoos around the world.

## INDUSTRY LEADERS

- 78 **CITGO PETROLEUM's** Lemont, Illinois location, which refines 167,000 barrels of petroleum per day, has spent close to \$1 billion on environmental improvements over the past 12 years.
- 80 **BALLET FLOORING** is an international one-man company that looks to bring about change in the dance-floor industry, offering both affordability and sustainability.



The Memphis Zoo features a Cambodian Angkor Wat as the backdrop for the tiger exhibit.

## Torre Design Consortium

*Creating high-profile, natural habitats showcasing cultural iconography and ecosystems*

BY JENNIFER KIRKLAND

ACE TORRE IS AN ARCHITECT ON A mission “to educate the world’s population to better understand and appreciate the importance of environmental resources and their enhancement through design.” Torre is the CEO and founder of Torre Design Consortium (TDC), an architectural firm based in New Orleans that specializes in zoos and nature centers. The company began in 1980, designing gardens and landscapes, but Torre soon realized a way to reach a bigger audience. “More people visit zoos than go to all pro sporting events combined,” he explains.

For almost 30 years, TDC has been a key player in the development and popularity of the environmentally friendly natural-habitat

style found in zoos worldwide. Although the company has only 14 full-time employees, it has put its unique stamp on 35 zoos in the United States and Canada, as well as one in China. “About 80 percent of our work is on zoo design, and we are working on 5–10 zoos at any given time,” Torre says. His firm also designs nature centers, botanical gardens, museums, conference centers, and hospitals, and all these projects have incorporated green design.

Like most good architects, Torre believes that a project is never finished but represents an ongoing relationship that lasts for years. For example, TDC designed a Tiger Exhibit at the Norfolk Zoo in Virginia in 1983. The

exhibit was an instant hit. “We took the tiger out of the cage and put it in a unique, natural environment,” Torre says. “But today, that exhibit is too small. It’s outgrown its original design.” So Torre’s company has been commissioned to build a \$17 million expansion, named the Trail of the Tiger. “We’re building a completely new exhibit that includes the old one, but is also part of a dramatic, much larger one,” he says.

The project embodies all of Torre’s design principles. “As we go through the exhibits, we notice two things: they are bigger and more comprehensive,” he says. “We want to tell grander stories about the world’s ecosystems, to juxtapose humanity, culture, art, history, and social biology.” The Trail of the Tiger will take visitors through Bali, Sumatra, and Thailand, showcasing the cultural iconography and architectural expressions of those cultures while replicating the environmental journey.

Other high-profile Torre projects are found in Memphis, Tennessee, where TDC began working in 1987. Today, the Memphis Zoo sees more than one million visitors per year, and the Torre-designed China exhibition houses one of only four giant panda exhibits in the United States, set in beautifully designed Chinese gardens. Torre designed two other popular exhibits at the Memphis Zoo: The Northwest Passage houses polar bears, sea lions, and seals—three universally popular zoo residents—as well as North American fauna, all surrounded in natural habitats and settings that showcase the art and culture of native people. The Teton Trek exhibit features Rocky Mountain creatures and a re-creation of Old Faithful Lodge, complete with geyser.

But the company designs more than just zoos and wildlife exhibits. A recent project designed by Torre is the Pelican Landing Conference Center in Moss Point, Mississippi. “It’s a dramatic-looking structure that is very effectively daylighted, so it seldom needs the lights on, which keeps the operational costs very low,” Torre says. The building is

**AT A GLANCE:** LOCATION: NEW ORLEANS, LA / YEAR FOUNDED: 1980 / COMPLETED ZOOS: 35  
AVERAGE ANNUAL SALES: \$3.5 MILLION+ / EMPLOYEES: 14

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We want to tell grander stories about the world's ecosystems, to juxtapose humanity, culture, art, history, and social biology.

—Ace Torre, CEO & Founder

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so well designed that it withstood Hurricane Katrina and was used as a headquarters by FEMA after the storm. “The worth of its design can't be priced,” Torre claims. “Proper design and logic allowed it to survive.”

Torre, a LEED AP, has always been interested in educating the people who use his designs through what he calls “painless learning.” As he explains it, “We want to create engaging immersion exhibits where visitors really feel like they are there. We're interpreting the importance of natural systems and the ongoing relationship between people and nature.” Torre sees his vision as the best way to teach environmental stewardship. “When you're in one of our exhibits,” he says, “you're having fun and enjoying yourself, but something is slowly sinking in to the noodle.”

Torre believes that having the natural world as part of his architectural canvas gives him a huge audience. “I want to fight for what's right,” he says, “to make sure we don't waste our resources, to take more of an advocacy role concerning wildlife in general. In this way, painless learning is great. If we can help teach proper environmental processes, we'll have a tremendous impact.” GBQ



# MEB

## General Contractors

**MEB is a proud contractor for sustainable designs by Torre Design Consortium.**

**Delivering Value Through  
Service, Teamwork & Integrity**



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