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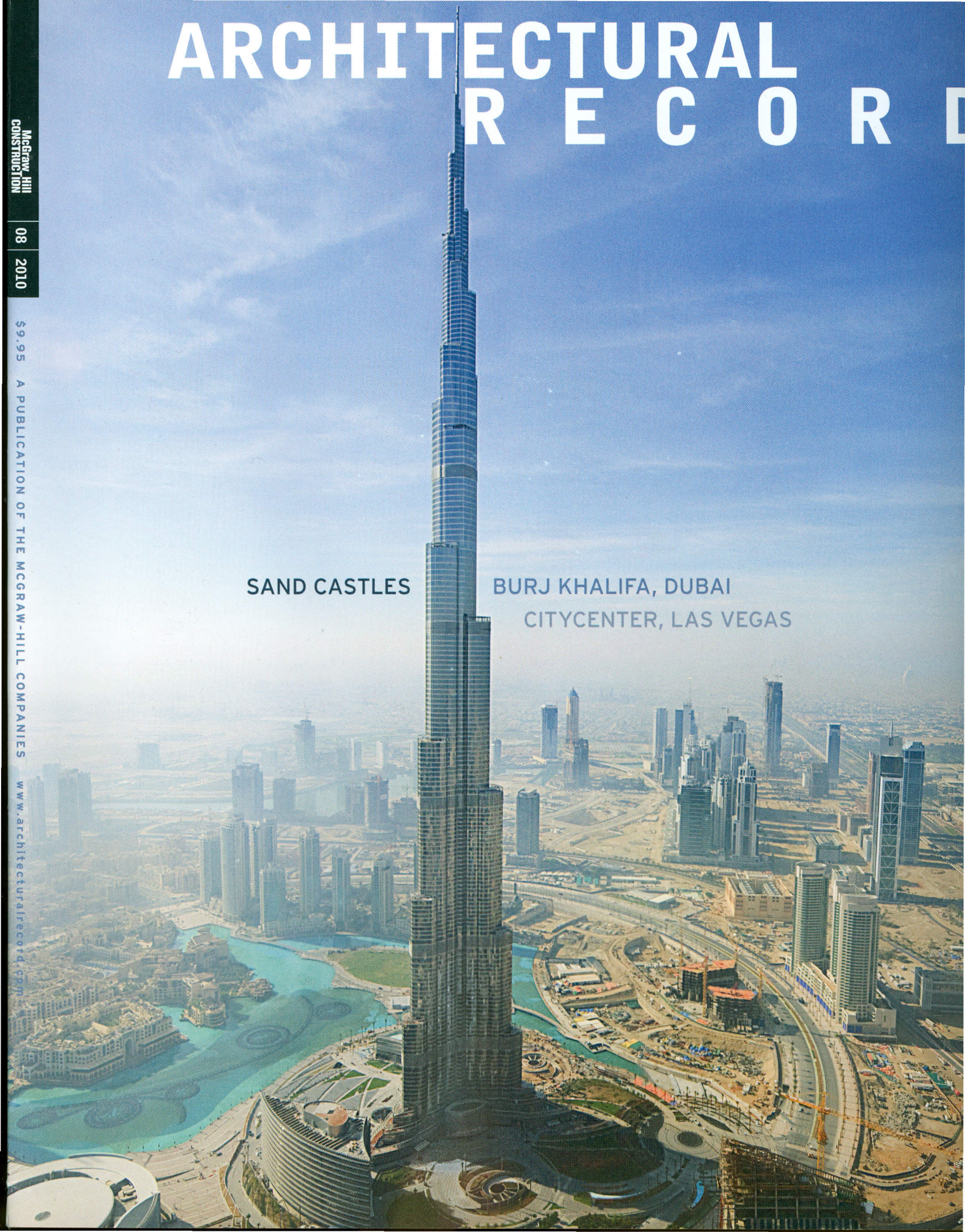
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PORTAL TO THE FUTURE

Expo 2010 **Shanghai** China

BY THOMAS J. CAMPANELLA

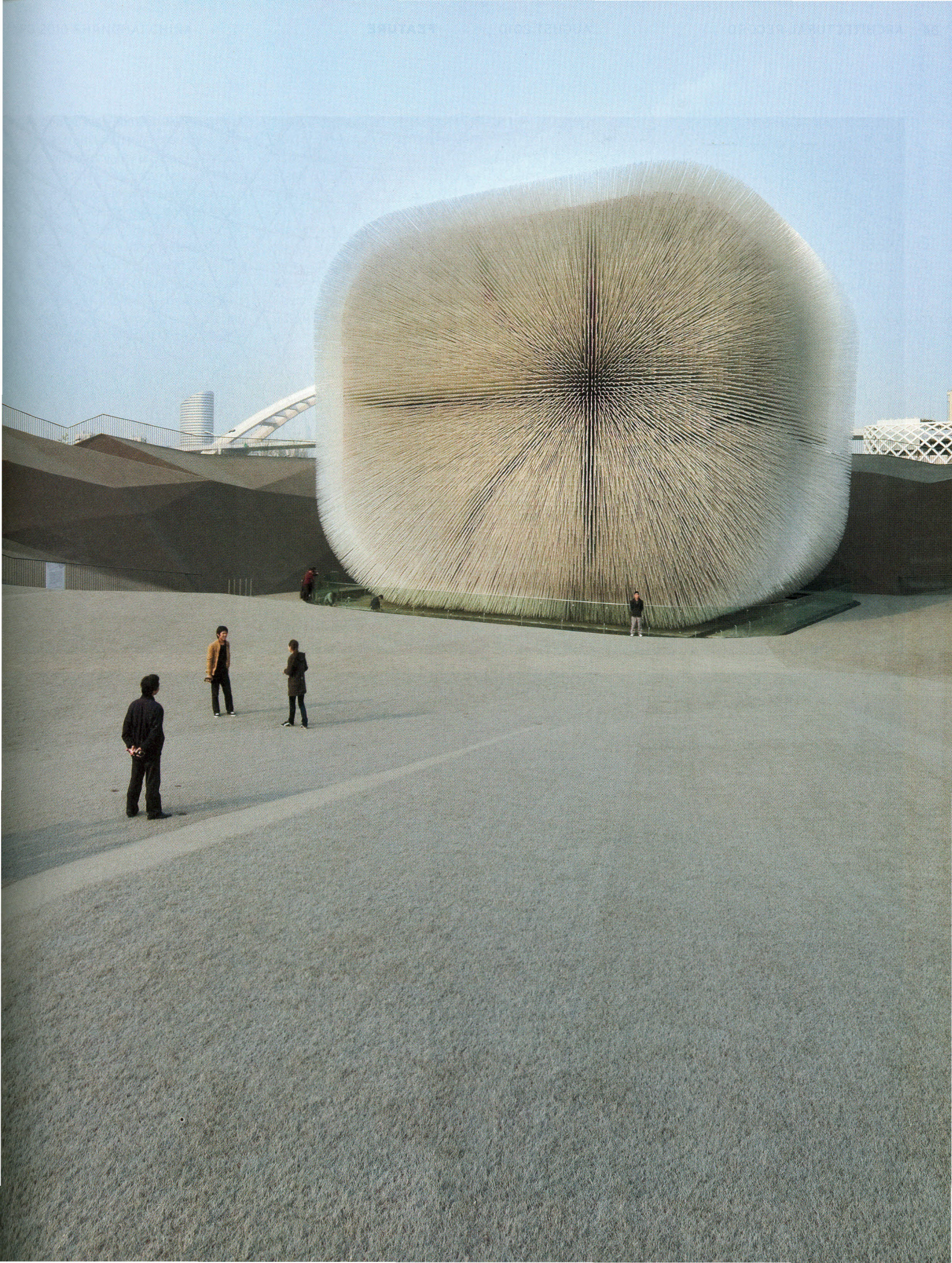
World's fairs and expositions have long served as test beds of architectural and urban innovation, but rarely have they been promoted as such from the outset. At the expansive Expo 2010

Shanghai China, organized around the fetching theme of "Better City, Better Life," urban futurism stands at center stage.

The Expo enters the record books as the largest and costliest world's fair ever held, though only time will reveal its ultimate impact on how we make and manage cities.

Not surprisingly, expectations are China high.

Thomas Heatherwick designed a surreal, folded landscape to surround his U.K. Pavilion, known as the Seed Cathedral.





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By now we have come to expect only superlatives from this nation of surging ambition, where a mighty building boom has rattled the earth for a quarter-century. China has come a long way from its Maoist days of red and gray, rice rationing, and isolation from the world. There is hardly a product in our homes today not manufactured in China; hardly a category of building or infrastructure that has not been superseded, in scale and length and loft, somewhere in the People's Republic. Two years ago, Beijing staged the most extravagant Olympic Games in history, with an opening ceremony that awed a world still used to thinking of China as the "sick man of Asia." In part, the World Expo is Shanghai's chance to outshine its northern sibling rival. But like the Olympics, the Expo will also telegraph to the world another must-read message about Chinese ascendancy. Even as the economic tide runs out from much of the globe, China is gleefully surfing the zeitgeist of our still-wet century. This summer, Shanghai will show what a made-in-China urban world might look like.

The United States did much the same thing more than a century ago, at a similar moment of acceleration to superpower status. In May 1893, the proud fathers of Chicago opened the World's Columbian Exposition. Nominally a celebration of the 400th anniversary of Columbus's arrival in the New World, the fair was really a celebration of Chicago – and America. It capped one of history's great sagas of urban recovery – Chicago's phoenix-like rebirth from the Great Fire of 1871 – while signaling to the world America's arrival on the global stage. Youthful and ambitious, the U.S. was the workshop of things to come, the foundry of the future. More than 20 million people attended the Columbian Exposition – a third of the U.S. population at the time – and they caught a glimpse there of what an orderly, automated urban tomorrow might look like: "Better City, Better Life" could well have been its catchphrase.

The most dazzling aspect of that tomorrow was electricity, then still unknown to most Americans. Electricity powered the fair's 90,000 lights, animated its fountains, pumped sewage, and propelled mechanical sidewalks and the world's first elevated rail line. President Grover Cleveland opened the exposition by throwing an electrical switch, and each night the fair consumed three

times the electricity of the rest of Chicago. But though not an exhibit per se, urban design was the fair's most lasting takeaway. Frederick Law Olmsted's master plan brought spatial discipline to the Jackson Park site, while the aesthetic unity of the buildings themselves – nearly all Beaux-Arts confectations – was meant to inspire a lofty sense of civic harmony and order. For better or worse, the Columbian Exposition ushered in the City Beautiful era, setting standards for American urbanism that would endure until the arrival of European Modernism in the 1930s.

Just as the Columbian Exposition heralded the American Century, the Shanghai World Expo portends a coming century of Chinese supremacy. How fitting that Shanghai be its host! The city has long been China's portal to the future, its most aggressively modern metropolis: the first to electrify; to provide municipal water and sewer service; to communicate by telegraph and telephone. Albeit, much of this was due to Shanghai's status as a treaty port – a well-oiled machine that helped spirit China's wealth off to London, Paris, and Tokyo. But it was also in Shanghai that some of the most progressive Chinese experiments in urbanism were carried out. The most ambitious was by none other (continued on page 58)



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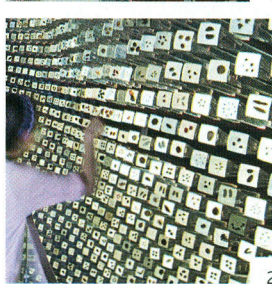
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1. View of the Expo Axis and China Pavilion.
2. Spain Pavilion by EMBT Miralles Tagliabue.
3. Finland Pavilion by JKMM Architects.
4. Denmark Pavilion by BIG-Bjarke Ingels.

TOURING THE PAVILIONS

1. Spain Pavilion | EMBT Miralles Tagliabue

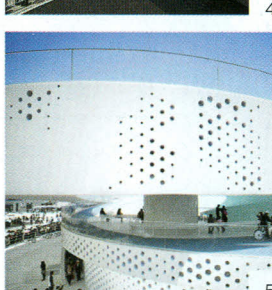
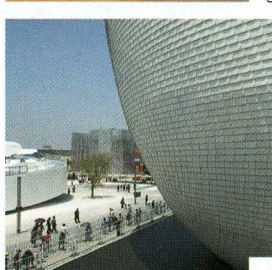
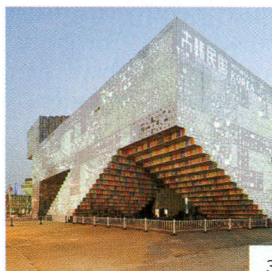
From the first glimpse of the building's snakelike, basket-covered form to the climactic view of a 21-foot-tall sculpture of a baby, Benedetta Tagliabue of EMBT orchestrated a theatrical event for visitors. Tagliabue opened the show with a facade made of more than 8,000 wicker panels woven by craftsmen in Shandong Province. Workers stripped and treated willow stems to produce a range of panel colors, and arranged the colors to form Chinese characters, which bring a tiger-skin pattern to an already fierce facade. The effect of the whole is only slightly marred by the many distracting, if necessary, "No Smoking" signs. A circular plaza marks the entrance to the building and splits it into a wing of exhibition space and a wing with offices and a tapas restaurant. Visitors arrive at a long, cave-like tunnel, whose rounded, rough walls are used as giant projection screens. Then they move into a high-ceilinged room sliced by five long, thin video screens, and finally into a bright, open space dominated by the giant baby (created by Spanish director Isabel Coixet) and more wicker panels. *Clare Jacobson*



2. United Kingdom Pavilion | Thomas Heatherwick

Most pavilions present their country's cultural history and progressive ideas in an effort to convey a clear sense of national values and identity. Conversely, the U.K. Pavilion seems to say, "You know who we are, so let's just show you something wonderful."

More sculpture than building, the pavilion, designed by Thomas Heatherwick, comprises 60,000 transparent acrylic rods, each 25 feet long, piercing a wooden frame. By day, the rods bring light to the interior, but at night they glow from LEDs. The ends of the rods contain seeds from the Germplasm Bank of Wild Species at the Kunming Institute of Botany, which gives the pavilion its nickname, the Seed Cathedral. Heatherwick envisioned his building as a piece of jewelry and its site the crinkled wrapping paper from which it came. His glowing gem of a design stands as a worthy successor to Joseph Paxton's Crystal Palace at the Great Exposition of 1851 in London. The pavilion organizers plan to distribute the seed rods to schools in China and the U.K. after the Expo. But it would be better if this new Crystal Palace lived on as a complete building instead of scattered seeds. *C.J.*



3. Republic of Korea Pavilion | Mass Studies – Minsuk Cho

As an exercise in form-making and spectacle, the colorful, multidimensional South Korea Pavilion succeeds at grabbing attention. Architect Minsuk Cho and his firm, Mass Studies, made a playful composition of the three-story structure, using block-like configurations, stepped corners, and multiple cutouts, then wrapping the building with alternating facades of Hangul letters cut into aluminum panels and colorful tiles designed by the artist Ik-Joong Kang. And they covered the central plaza with an abstract map of a typical Korean city, complete with stepped-seating "mountains" around a performance stage.

As a building, however, the pavilion proves less successful. The three-dimensional excitement of the exterior does not continue on the interior. Visitors enter the exhibition space on the second floor via an elevator and then walk



down a simple single-story hallway to the exit elevator. More important, the big idea of the project – to create a lively public area framed by the building – fails in its execution. Long lines at the pavilion take over the plaza, offering only fleeting glimpses of the map and performers acting as integral parts of the country's exhibition. In his defense, Cho states that he intended his design "to improve the typical inverted condition in which most visitors spend more time waiting than experiencing the exhibition itself." *C.J.*

4. Finland Pavilion | JKMM Architects

Inspired by the large cavities cut into bedrock by receding glaciers during the last Ice Age, Teemu Kurkela and his colleagues at JKMM Architects carved a tall open space at the center of their Finland Pavilion and gave the building an almost geological character. Called Kirnu (Giant's Kettle), which is the term used for those cavities in the earth, the pavilion alludes to natural forms without ever being literal. The architects surrounded the pavilion with a pool of water to give it the sense of an island and used shingles on the outside that recall fish scales. But they kept everything abstract enough so the various elements seem poetic, not corny or sentimental. A steel-frame structure that has been bolted together so it can be dismantled and reused somewhere else, it incorporates a number of sustainable-design strategies. For example, its central cavity helps draw air through the spaces to cool visitors, and its exterior shingles are made of recycled paper and plastic. *Clifford A. Pearson.*

5. Denmark Pavilion | BIG-Bjarke Ingels Group

Using cultural clichés in architecture rarely results in good design. But Bjarke Ingels found a way of incorporating Hans Christian Andersen's *Little Mermaid*, water from Copenhagen's harbor, and Denmark's ubiquitous bicycles into his nation's pavilion while making it smart and fun, not dumb and silly. Designed as a double spiral with ramps for pedestrians and bicyclists that cross at two places, the pavilion offers both a slow and a fast route through its exhibitions. Visitors can start their experience by going to a roof garden for a picnic, then take one of 300 bikes for a quick ride downhill. At the base of the pavilion, sitting in a pool of water shipped over from Copenhagen harbor, the *Little Mermaid* sculpture normally found in Copenhagen now attracts the attention of Expo visitors. In a witty trade, a multimedia artwork by Ai Weiwei resides in Copenhagen while the mermaid vacations in Shanghai. *C.A.P.*

6. The Netherlands Pavilion | John Körmeling

This pavilion offers a unique interpretation of the Expo's motto "Better City, Better Life." For architect/artist John Körmeling, this means a place to take a stroll, see the sights, or just hang out. His design, called *Happy Street*, consists of a 1,300-foot ramp lined with 26 houses filled with conceptual art (a big floating rock), technological innovations (a water-treatment installation), and cultural artifacts (a re-creation of the Schröder House with a Rietveld chair). Körmeling gives Expo-goers what they need: an umbrella of buildings that shield them from sun and rain, a communal space for which they don't have to stand in line or pay money, and plenty of fiberglass sheep to sit on. *C.J.*



LEFT: **The South Korea Pavilion by Mass Studies:** Minsuk Cho creates a covered plaza.

than Sun Yat-sen, founder of the Chinese Republic. His 1919 "Great Port of Pudong" plan proposed a canal across the Pudong peninsula to divert shipping and commerce away from the Bund, leaving the foreigners high and dry.

Will the Expo extend Shanghai's legacy of urban progress and innovation? Will it change how we imagine and build cities the way the Columbian Exposition did four generations ago? Its planners certainly mean it to. A visit to the Urban Best Practices Area (UBPA) offers a glimpse of how. There, in what is arguably the Expo's most original attraction, the organizers exhibit state-of-the-art planning and architectural practices on a 50-acre site. This is by no means the first time a world's fair has dabbled in speculative urbanism. The popular Futurama exhibit at the 1939 New York World's Fair – with its mechanized "Democracity" diorama of the American landscape circa 1960 – celebrated a coming order of skyscrapers and sprawl. But the scale and ambition of the UBPA is without precedent, and its relentless message – about sustainability, energy alternatives, and reducing our collective carbon footprint – is the most urgent of our age. How far we have come from the Columbian Exposition's gluttonous celebration of electric power!

The UBPA delivers its message inside several renovated Mao-era industrial buildings and a series of stand-alone "case city" pavilions. In its pavilion, London looks at its Beddington Zero Energy Development (BedZED), the first carbon-neutral community in the world, while Madrid offers a version of an innovative social housing project at Carabanchel by London-based Foreign Office Architects, with bamboo shutters, a ventilated glass curtain wall, and a rooftop rainwater pool. The Danish town of Odense focused its open-air pavilion on urban bicycle infrastructure, while Mecca offers visitors a replica of the membrane-roofed structures erected annually to accommodate hajj pilgrims. The Pavilion of the Future, a reclaimed power plant whose smokestack is now a colossal thermometer, anchors the east end of the site and offers a wealth of interactive displays exploring the theme of urban utopia through the ages.

When the Columbian Exposition opened, Olmsted was alarmed to see bored expressions on the faces of visitors to the Court of Honor – the fair's gloriously didactic centerpiece. The White City, as the fair's ceremonial core was dubbed, (continued on page 134)

(continued from page 58) was an obligatory stop for visitors, to be sure; but most soon headed off to the infamous Midway, where they could ogle racist displays of tribal peoples or experience technologies of a more visceral sort – a ride on the world's first Ferris wheel, for example. The Shanghai Expo has no such pabulum, but its earnestly instructive UBPA exhibits don't seem to be particularly popular. This is the fault of geography and too much plannerly faith in the aerial view. Like Paris, Shanghai is split by a river; its left and right banks are very different places. Puxi – "west of the Huangpu" – is old Shanghai, the treaty-port city of the Bund. Pudong ("east") is almost wholly a post-Mao creation, a caffeine-fueled growth zone Deng Xiaoping famously called "the head of the dragon." Shanghai planners have used every form of infrastructure to pull the city's halves into a coherent whole, which is why the Huangpu is

the most bridge-and-tunnel-crossed urban river in the world.

It is also why the Expo was laid out neatly on both sides of the water. Yet, as any landscape or urban design student knows, the plan view seductively minimizes ground-level realities. That the Expo's river-sliced plan would be experienced by visitors as a single entity is pure delusion. Worse, the goods have not been equally divided. The biggest attractions, including all of the national pavilions, are on the Pudong side, while Puxi seems to have gotten the leftovers. Of course, it's hardly surprising that the Expo's planners would put the good stuff in the east. Pudong represents China's bold urban future, and its skyline might well be recognized now by more people around the world than New York's. Symbolically at least, this is where the Chinese century begins, not among Puxi's coal-dark masonry and memories of subjugation. This

makes it doubly unfortunate that the UBPA, with all its bright-eyed optimism, was not placed on the side of China's urban tomorrow but in Puxi, where fewer Expo visitors venture. One American attendee described Puxi as the Expo "ghetto," and the UBPA "the ghetto of the ghetto."

Of course, all this begs the question: In this age of globalization and light-speed communication, is it really necessary to erect such a costly, energy-wasteful complex to teach sustainability in a world of dwindling resources? As with every previous world's fair, most of the Expo's structures will eventually be demolished. Despite all the lessons on greenness and sustainability, the pavilions are really not so different from single-use batteries or disposable razors (admittedly, much of the building material will be recycled). In 1893 and 1939 – even in 1964 – relatively few people traveled to other lands except to make war. World's

fairs shrank the globe and put ordinary people in contact with a wealth of new ideas and information; they were like brick-and-mortar Web browsers. Given our Googlized world of melted borders and mingled peoples, isn't all this really just elaborate entertainment and a chance for a city and nation to strut its stuff? Perhaps; but then again, for millions of Chinese today global travel is still as remote a possibility as it was for the majority of Americans who streamed to Chicago in 1893. And for the rising generation of more affluent Chinese youth, who spend a frightening amount of time in cyberspace, anything that gets them out from behind a computer screen is a worthy venture indeed. ■

Thomas J. Campanella is the author of The Concrete Dragon: China's Urban Revolution and What It Means for the World.