Making Extra-Large The Right Fit
Tsao & McKown designs a multi-use mega-development that contributes to rather than rips at a city’s urban fabric.
As cities throughout Asia leap from the 19th century straight into the 21st, the multi-use mega-development is fast becoming the architectural icon of the day. National leaders, multi-national developers, city officials, and even people on the street see these projects as symbols of new-found prosperity and power. Images of skyscrapers and convention centers find their way into commemorative stamps and TV commercials promoting the new Asia. The challenge facing architects designing these giant complexes is making them work as more than just three-dimensional logos: making them integrated pieces of cities undergoing radical transformation and creating designs that speak to both traditional cultures and an emerging sensibility based on equal parts consumerism, national pride, and faith in technology.

Suntec City—comprising a 1.08-million-square-foot convention center, four 45-story office towers, an 18-story tower, 80,000-square-feet of retail and entertainment space, and parking for 3,200 cars—tackles these challenges head-on and, to a remarkable degree, wins. Although the faceted tall towers and the blocky shorter tower are too reserved in form to truly enliven the Singapore skyline and have been criticized for the amount of sunlight they block, Suntec City works better and better the closer you get to it. As designed by Tsao & McKown (with offices in New York City and Singapore), and the Singapore firm DP Architects, the Suntec buildings wrap around a circular plaza that promises to be a real urban amenity when all of the restaurants and shops around it are filled. And by creating spaces between buildings that work as outdoor rooms and opening several levels of retail space to sunlight, the architects have made important strides in breaking from the internally focused projects so common in Asia. “Rockefeller Center was an obvious inspiration,” says Zack McKown, who spent most of the last eight years living in Singapore. “We wanted to accommodate a level of urban life not typically found in Singapore,” adds Calvin Tsao, who commuted back and forth from New York City.

Privately developed by a consortium of mostly Hong Kong shareholders on a 23-acre site offered for bid in 1988 by Singapore’s Urban Redevelopment Agency (URA), Suntec City connects to the rest of downtown Singapore in a variety of ways. By bringing the convention center to the edge of the site—rather than setting it back as is typically done in Asia—the architects created street walls on two important avenues, Raffles Boulevard and Nicoll Highway. As a result, the project seems very much a part of downtown, not a separate enclave. Although Tsao and McKown’s initial impulse was to orient the towers to the marina, they eventually realized it was more important for the buildings and the central plaza to face the city.

**Up Close**

**Planning:** Buildings are organized around a central plaza that serves as a focal point for outdoor activities and a visual landmark. The plaza was inspired by Indian mandalas, which are often used for planning villages and civic structures. The master plan resembles a hand with the convention center being the wrist, the five office towers the fingers, and the fountain a “golden” ring in the palm—a scheme visitors easily remember. Opening the plaza to the city and using buildings to create street walls on key boulevards, the architects gave the project a strong urban presence.

**Global Practice:** With offices in New York City and Singapore and projects in the U.S., the Far East, and India, Tsao & McKown is a global firm. Both Tsao, who once had worked for I.M. Pei, and McKown, who had worked for Rafael Viñoly, had international experience before starting their firm in 1985. When it began work on Suntec City in 1988, Tsao & McKown had 10 architects in New York. Within 18 months, the firm opened a Singapore office and had 18 architects there and 3 in New York working on Suntec City. Singapore had been in a recession when the project started, but by late 1989 it was booming. So much building was underway at the time that hiring and retaining experienced architects in Singapore was difficult. As a result, most of the designers in the Singapore office came from New York; a few, such as Neil Troiano, have stayed with the project for most of its life. Though Tsao was born in Hong Kong, the firm put McKown in Singapore because he wasn’t expected to follow the often-elaborate rules of Asian etiquette and could speak more frankly. By sending partners and associates between New York and Asia and collaborating via phone, fax, and Internet, the firm tries to work as one office—a goal that was tested by the size of the Suntec City job.
Just as important, the architects—with help from the URA—convinced the client to go to the expense of raising the convention center one level above grade and leaving the ground floor free for retail, restaurants, and public spaces. Reviving a practice set by Singapore’s 19th-century founder, Sir Stamford Raffles, the architects recessed these public spaces behind a covered arcade that provides protection from rain and direct sun, and creates a continuous promenade around three sides of the convention center. In a similar gesture to the public realm and the local climate, Tsao & McKown carved out four-story-high spaces from the base of each of the towers, curving them around the fountain plaza that is the heart of the city within a city.

Because the convention center had to accommodate long spans and provide a 130,000-square-foot column-free convention hall on its top level, steel construction was used. Its multi-pyramid roof, which has become its identifying feature, is suspended from an external space frame and includes glass panels that bring sunlight into the hall. As is the norm in Asia, the office towers are concrete-frame structures—although massive cast-in-place transfer girders allow the corners of these buildings to be cut away to create covered patios.

While construction in southeast Asia is rarely up to world-class standards, the Suntec buildings exhibit a level of craftsmanship and detailing that is a testament to the close working relationship between the foreign and local architects and to Tsao & McKown’s involvement until the end of construction. To tie the buildings together visually, all of them are clad in sea-foam-green aluminum and granite panels. Where facades are cut in the towers, stone seems to give way to an underlying metal-and-glass skin. On parts of the buildings closest to pedestrians, portions of curtain wall erupt in colors—such as saffron, curry, and jade—that refer to the local mix of Chinese, Indian, and other Asian cultures.

Although the last two towers and an adjacent entertainment/retail component won’t be finished until next year, Suntec City is starting to come alive with office workers, shoppers, and people relaxing at restaurants. It has its own sense of place, while offering enough ties to the rest of Singapore so it never seems a world apart. All too often, Western architects working in Asia have been unable to deliver projects that rise above the get-it-done-quickly norm. But Suntec City shows that urban values and quality design don’t have to be sacrificed when architects cross the Pacific; in so doing, it has raised the standard for other mega-developments here. Clifford A. Pearson.

At 570 feet by 475 feet, the convention center’s external space-frame roof (opposite and drawings above) is one of the largest in the world. The 18-story office tower (left) has large (28,000-sq.-ft.) floor plates to attract international tenants.
From a distance, Suntec City's aluminum and granite cladding give it a unified, monochromatic presence on the skyline (opening pages). But up close and at grade level, the architecture splinters into a variety of forms and a rich range of materials and colors that engage pedestrians. The boldest colors were used on elevations facing the city and major streets (left top), while subtler hues were employed on those elevations facing the central plaza. By carving away space under the bulk of each building, the architects created protected outdoor patios and promenades that feed into the central fountain plaza.

To entice visitors from the street level to restaurants and shops below grade, Tsao & McKown used a variety of architectural devices, such as cutting through to lower levels (top right) and using skylights to offer views below (lower right). A cantilevered glass wall and a reflecting pool call attention to a restaurant in the lower level of the 18-story office tower (opposite). The theme of transparency and penetration is continued in the lobby of this same tower (lower left).

1. Convention center
2. Vehicular ramp
3. Office tower (18 stories)
4. Retail
5. Retail atrium
6. Office tower (15 stories)
7. Retail/entertainment
8. Central plaza
1. Pedestrian underpass
2. Retail
3. Convention center lobby
4. Pedestrian bridge
5. Vehicular ramp
6. Office tower lobby
7. Retail atrium
8. Retail/entertainment atrium
9. Fountain terrace
10. Fountain

A multi-story atrium on the long southeast side of the convention center and a mostly transparent wall on this elevation (opposite) help orient visitors. The urban setting demanded a stacked arrangement for the convention center with, from top down—a 136,000-square-foot column-free convention hall; a 130,000- square-foot exhibition hall that can be divided into three spaces; two floors of meeting rooms, a ballroom, and an auditorium; and a ground floor with registration and retail.

The lobby and registration hall features a floor mosaic of Buckminster Fuller's Dynavision Map (bottom left). A grand stair, one of the few architectural requests of the client, is a composition in glass and light (far left).

Credits

Suntec City
Singapore


Architect of Record: DP Architects

Engineers: Weiskopf and Pickworth (structural concept, convention center); Mancini Consultants (civil/structural); Parsons Brinckerhoff (mechanical/electrical)

Consultants: Ng Chun Man & Associates (project); R. A. Heintges Architects (cladding); Arnold Associates (landscape concept); Clouston (landscape); Tracy Turner Design (signage)