

# STRIKING REVIVAL OF SINGAPORE'S HISTORIC RIVERFRONT

**SMC Alsop's first major project in Asia, a dramatic redevelopment of the riverfront district of Clarke Quay in Singapore, is succeeding in drawing tourists and locals back to the historic waterfront.**

By SMC Alsop, London and Asia

Following a steady decline since its heyday servicing bustling trade on the Singapore River, and an unsuccessful conventional gentrification of the heritage site in the 1980s, SMC Alsop was

appointed in 2002 with a brief to rejuvenate the prominent 3-hectare diamond-shaped site. The challenge was to provide a new lease of life, not just by developing an attractive re-design of the streetscape and waterfront,

but also by addressing the perennial climate problem (ambient temperature and heavy rainfall) without resorting to the traditional scenario of creating an internal air-conditioned mall. The first phase of the waterfront revival,



A bird's-eye view of the Clarke Quay development on the Singapore River.

completed in March 2006, redeveloped three main areas: the riverfront, the streets and River Valley Road.

The addition of a single roof acts as a visual icon attracting people back to Clarke Quay as an essential leisure and pleasure area. In addition to the visual impact, the canopy cools the streets and keeps the rain off.

## Bespoke sun and rain umbrellas

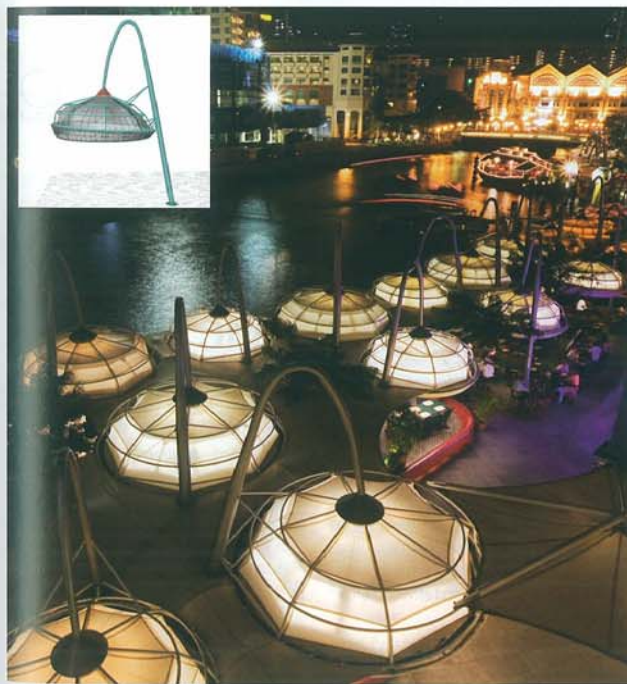
A revival of the riverfront itself has been achieved through the creation of an elevated

dining area projecting out over the river wall to maximise the waterfront experience, and create a level of separation and privacy for diners. This is dramatically effected by the installation of a series of elevated 'lilypad' dining platforms covered by distinctive bespoke sun and rain umbrellas, known as 'bluebells', that animate the water's edge. Illuminated at night in a variety of colours, the bluebell umbrellas and their reflection in the Singapore River are reminiscent of an array of traditional Chinese lanterns

arranged to celebrate the Chinese mid-autumn festival.

## Elegant cushioned canopies

Formerly the hot, humid or wet domain of tacky shopping outlets and hawkers' stalls, the streetscape has been transformed into a pleasant climate-moderated environment of landscaped arcades. Elegant canopies, providing environmentally-friendly shading and cooling, protect visitors against the extremes of the Singaporean climate and →

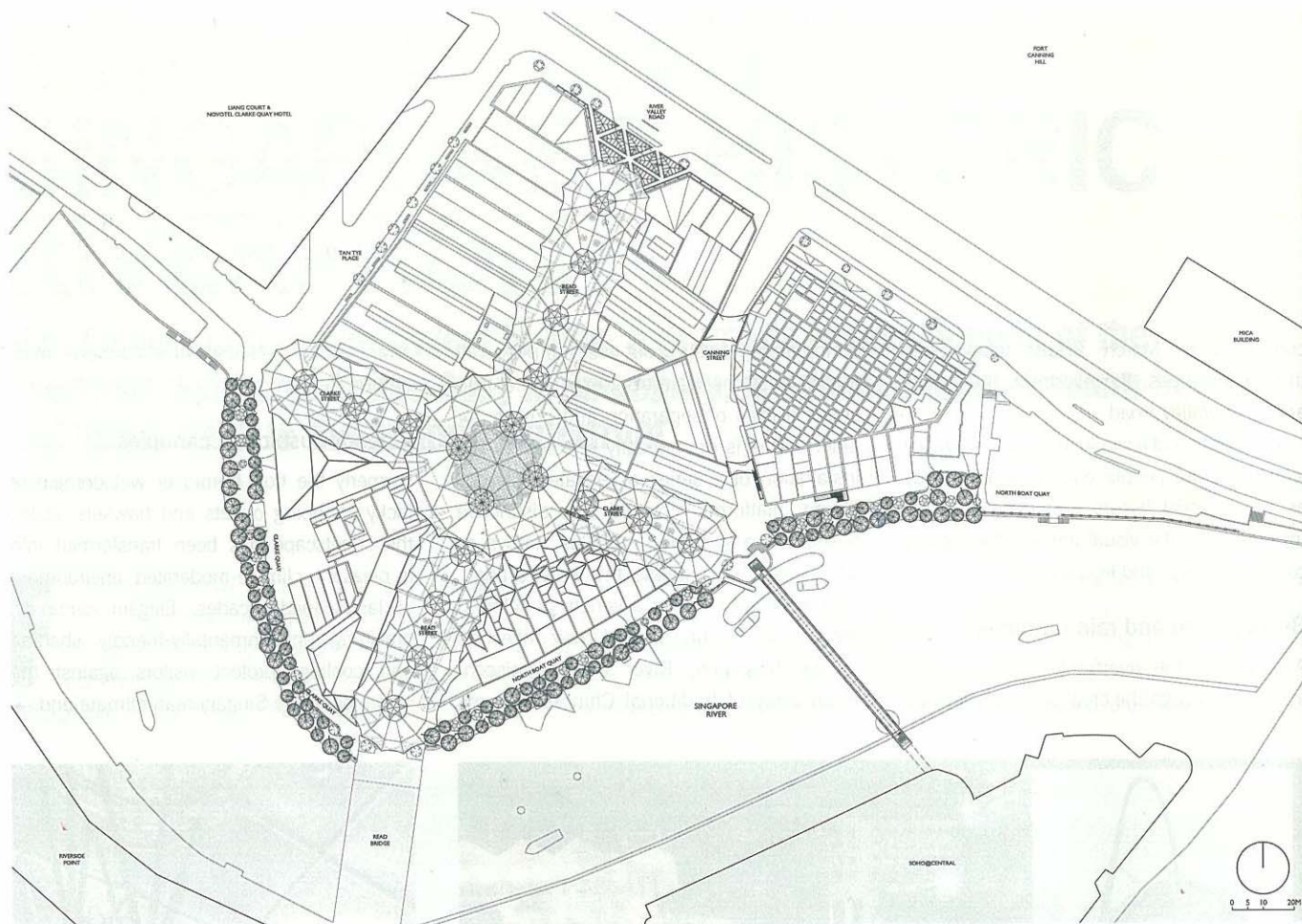


The 'bluebells' sheltering diners along the riverfront are lit dramatically at night.



Slow-speed fans designed by Arup are set within the steel framework of the 'umbrellas' supporting the ETFE canopy. The fans provide a gentle breeze and the canopies protect against the sun and rain. Dramatic lighting adds to the visual interest and draws people to the area.





Plan of Clarke Quay shows the 'bluebells' along the river and central ETFE canopies.

maintain the temperature at 28°C. Known as the 'angels', the willowy umbrella-like structures comprise ETFE (ethyl-tetra-fluoro-ethylene) cushioned canopies supported on steel frames. Cantilevering over the roofs of adjacent shop houses, the angels provide solar shading and rain protection. The frames of the angels support large, slow-speed fans that provide a low-level artificial breeze in the streets. Specialised air-modelling systems were used to tweak the air-mover designs for optimal occupant comfort, and to maintain air movement when natural wind speed is low. Tree planting in the streets provides further shading and solar absorbance, and the installation of a feature fountain in the centre of the restaurant-lined courtyard affords further visual and cooled environmental benefits.

### Controlled microclimate successful

Developed by Capitaland, the SG\$88 million mixed-use scheme, designed to increase commercial and leisure activities, gives the riverfront area a new identity and re-positions Clarke Quay as a vibrant and attractive destination. Crucial to the success of the project has been the architect/engineers' ingenious manipulation of the site's microclimate through the design of a distinctive and sophisticated shading/cooling system that provides the Quayside with tremendous visual interest and environmental benefit.

*All photos apart from title photo by Jeremy San of Stzernstudio.* ◀

## SMC ALSOP IN ASIA

Over the past 4 years SMC Alsop has established a growing presence in Asia with three offices in the region: Singapore, Beijing and Shanghai. The Singapore office is working on projects in China, Malaysia and Singapore. The Beijing office is primarily working on a 160,000 m<sup>2</sup> mixed-use development, adjacent to the city's second ring road, for Capitaland. The Shanghai office is involved in a large-scale mixed-use development on the bank of the Huangpu River.