

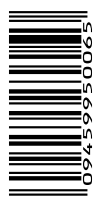
LANDSCAPE FORUM

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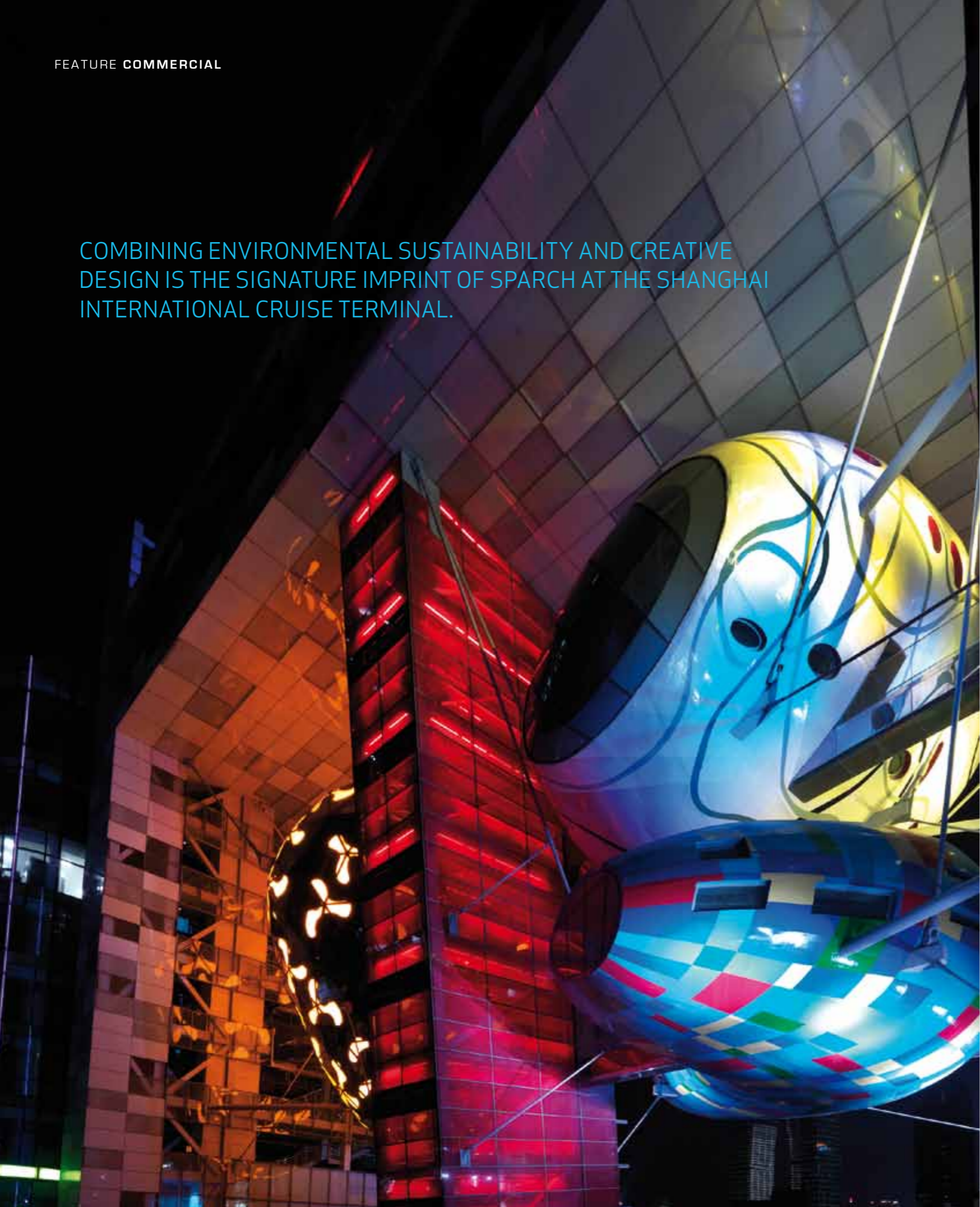
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BON VOYAGE! SHANGHAI INTERNATIONAL CRUISE TERMINAL HAVE A PLEASANT CRUISE

ENGINEERING INGENUITY AND FUNCTIONAL AESTHETIC – OFTEN THE CROSSROAD THAT POSES CHALLENGES FOR ANY COMMERCIAL PROJECT TO FIND CREATIVE SOLUTIONS TO REALISE ARCHITECTURAL INTENT. SUCH IS THE CHALLENGE TO MASTER PLAN THE 800M-LONG SITE FOR SHANGHAI'S NEW INTERNATIONAL CRUISE TERMINAL.

COMBINING ENVIRONMENTAL SUSTAINABILITY AND CREATIVE DESIGN IS THE SIGNATURE IMPRINT OF SPARCH AT THE SHANGHAI INTERNATIONAL CRUISE TERMINAL.



The key specification is to deliver the architecture of the commercial and entertainment districts in two phases. Located at the north of the historical Bund centre of Shanghai, the new Shanghai International Cruise Terminal is an expression of the city's desire for more public, open space as well as for a new gateway to the city to accommodate the more than 1.5 million visitors expected to pass through the new terminal. The total construction area of the mixed-used development is 260,000 sqm, more than half of which is leasable space and as much of this is actually underground, including the terminal facilities.

With 75 per cent of the terminal site designed as a public park after Shanghai authorities, in the lead-up to hosting World Expo 2010, free up 30 per cent of the municipality for citizens to enjoy, a green corridor along the Huangpu River was created. Even with the limitations, the built area of the site is a commanding 400m in length, comprising seven separate structures. Six of these buildings are the head offices for a number of international shipping corporations and conglomerates.

Combining environmental sustainability and creative design is the signature imprint of Sparch at the Shanghai International Cruise Terminal. The development utilises the 'River Cooling Technology', a first in Shanghai. Water from the Huangpu River is used as a refrigerant to naturally cool the buildings during the hot

summer months, and then recycled back to the river.

Engineered by renowned Paris-based RFR, the company behind the Louvre Pyramid, the façade of the six office pavilions is 12,000 sqm of post-tensioned glass, a visually delicate double skin that has an important environmentally sustainable role to play.

Due to the southern exposure of the site, the façade insulates the buildings during the winter months and mitigates solar gain in the peak summer months.

This form of passive design is augmented by other features such as ventilated central atria in the buildings. Topped with louvred skylights, the atria expels hot air, maintaining a constant air flow and therefore a consistent interior temperature.

In addition, a photovoltaic membrane at roof level will offset the energy requirements of lighting the landscaping and public spaces.

Considering that Herculean scale of the cruise ships that will dock alongside (up to three 80,000-tonne vessels at any one time), Sparch, an international award-winning architectural studio, designed a 'Chrous Line' of the six office buildings to sit comfortably beside the ships, wrapping the buildings in a fluid steel and glass solar skin which visually tied the scheme together.



THESE RIPPLES ARE AMPLIFIED INTO CRYSTALLINE WAVES THAT WRAP OVER THE BUILDINGS, GIVING THE SEPARATE STRUCTURES AN OVERALL COHESION.



The Editor thanks Sparch for contributing this article on the Shanghai International Cruise Terminal. Indeed an amazing mixed-use development, and even before its completion at the end of the year, the Shanghai International Cruise Terminal has already clinched its first architectural award. The development, designed by international award-winning architects Sparch, won in the Best Mixed-Use Buildings category in the prestigious industry 2011 MIPIM Asia Awards. The award will be presented to Sparch at the MIPIM Asia's Gala Dinner on 16 November 2011 at the Hong Kong Exhibition and Convention Centre.

For more information, visit www.sparchasia.com and for more information on MIPIM Asia Awards, visit www.mipim.com/mipim-asia/programme/mipim-aspa-awards.



This is an extension of the landscape creating a series of ripples across the site. These ripples are amplified into crystalline waves that wrap over the buildings, giving the separate structures an overall cohesion. This effect is more apparent at night when the whole site is illuminated and the chorus-line nature of the design is heightened.

To balance increased density with the requirement for open space, a series of terraced courtyard are created to lead down to the water so that from any part of the development there is a clear sight of the sunken gardens, forming part of the public open space.

This has cleverly resulted in an ambiguity as to where the ground plane is. The buildings appear to disappear into these sculpted openings, blurring the line between above ground and below.

A distinct design element arose from the manipulation of the ground plane – the result of having to overcome limitations at a specific point of the site. Existing tunnels under the site meant that Sparch could not position another building at that point. Initial discussions with the client brought forth the idea for some style of bridge architecture that would include public facilities within the span.

The Shanghai Chandelier, as it has been dubbed, was the end result of that original idea, and is the first such suspended cable structure in the world. This is also the seventh structure of the site which is gaining worldwide attention for its architectural ingenuity.

As the centre piece of the development, the 40m-high glass-clad portal overlooks the public park and waterfront, where an open space is set aside for residents and tourists to gather for festivals and events. The structure houses floating restaurants, cafes and bars suspended on cables beneath a seven-storey steel truss in an extraordinary three-dimensional composition.

