

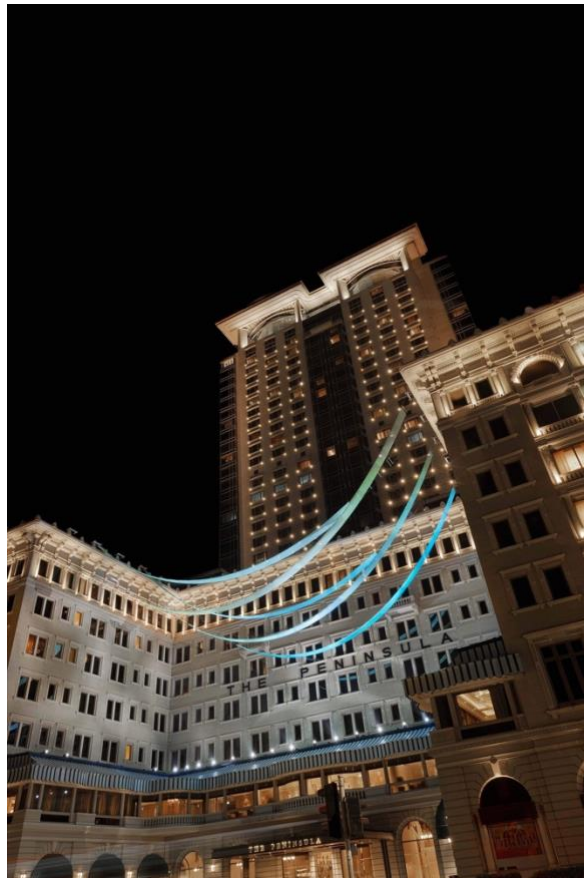


THE ART NEWSPAPER

The art of engineering: how Kingsley Ng's complex new floating work was installed at a Hong Kong hotel

By Gareth Harris

The public art piece at The Peninsula was produced by a team of engineers and technical designers



Kingsley Ng, *Esmeralda* (2024)

Photo: Courtesy of The Peninsula Art In Resonance

A dramatic new work hovering over the façade of the famed Peninsula Hotel in Hong Kong made waves during city's art week last week. The piece by the local artist Kingsley Ng, entitled *Esmeralda*, comprises a series of fabric strips criss-crossing from window to window which are catching the eye of thousands of passers-by below.

Crucially the work has been a feat of engineering. “The work is very minimalistic, but it is a technical feat,” Ng says. “Made with jade-coloured ribbons, each spanning 36 metres in length and individually controlled by motorised winches, *Esmeralda* will undulate between the physics of gravity and the buoyancy of air,” adds a project statement.

Joe Walker, the principal engineer with Prime Consulting Engineers Ltd, played a key part in bringing the piece to life. “The engineering principle from conception was to tension the cables to provide stability and control of the ribbon in high winds. If you imagine pulling a shoelace, the tighter you pull the less it can move. However, we need to resist this tension force through the base building structure of the Peninsula hotel,” he says.

The Peninsula is also a protected heritage building, so his team had limited opportunity to access the facade. There are also no original building records so Walker referenced historic British design codes to make an engineering assessment.

He adds that the team created a 1:200 scale model from an old pinafore and cotton thread to replicate the fabric and tension cables, using a fan to create the wind. “It immediately gave an insight on how the ribbon would move and deform under different wind loading. I used the shapes and observations to form the basis of my wind calculations. Kingsley took the scale modelling further and further to the point where we undertook a full-scale mock-up. This deepened our understanding on how the weight and scale of the installation would affect the performance in the wind.”

The work is inspired by Italo Calvino’s celebrated 1972 novel *Invisible Cities*, which features a city called Esmeralda. “The labyrinthine layout [of Esmeralda], depicted as a zigzagging network of routes ascending and descending through steps, bridges, and streets, can possibly be a metaphor of Hong Kong's urban complexity,” Ng tells *The Art Newspaper*.

Esmeralda is part of Art in Resonance, a programme launched in 2019 which is overseen by the independent curator Bettina Prentice and Isolde Brielmaier, the deputy director of the New Museum in New York. “We found ourselves with dogeared copies of *Invisible Cities* and thinking about the infinite routes of the city of Esmeralda that the artist references with this new commission,” Prentice says.

Ng gives his own insights into the practical aspects of producing and installing *Esmeralda*. “The work is an interplay of natural forces and human intervention. We are very respectful of nature and have to learn constantly from it. While doing the tests, we tried to simulate a myriad of wind conditions with towering special effects fans, and currently we are constantly tuning in to wind velocity and direction with an anemometer, whose real-time findings are cross checked with datasets from the Hong Kong Observatory.

“The ascent and descent is controlled by a system of motorised winches, but wind definitely plays a part. And of course, the pull of gravity is at the core of everything.”

He eloquently sums up the project, adding: “There is a Chinese saying: every minute on stage takes ten years of hard work. Every project takes a tremendous amount of time and effort... it takes a collaborative village to see to every aspect and carry the project through.”

The Art in Resonance programme in Hong Kong also includes commissioned works by three other artists: Paris-based Elise Morin (*SOLI*), Los Angeles-born Lachlan Turczan (*Harmonic Resonance*), and Saya Woolfalk of Japan (*Visionary Reality Portal*). All of the pieces are on show until 24 May.