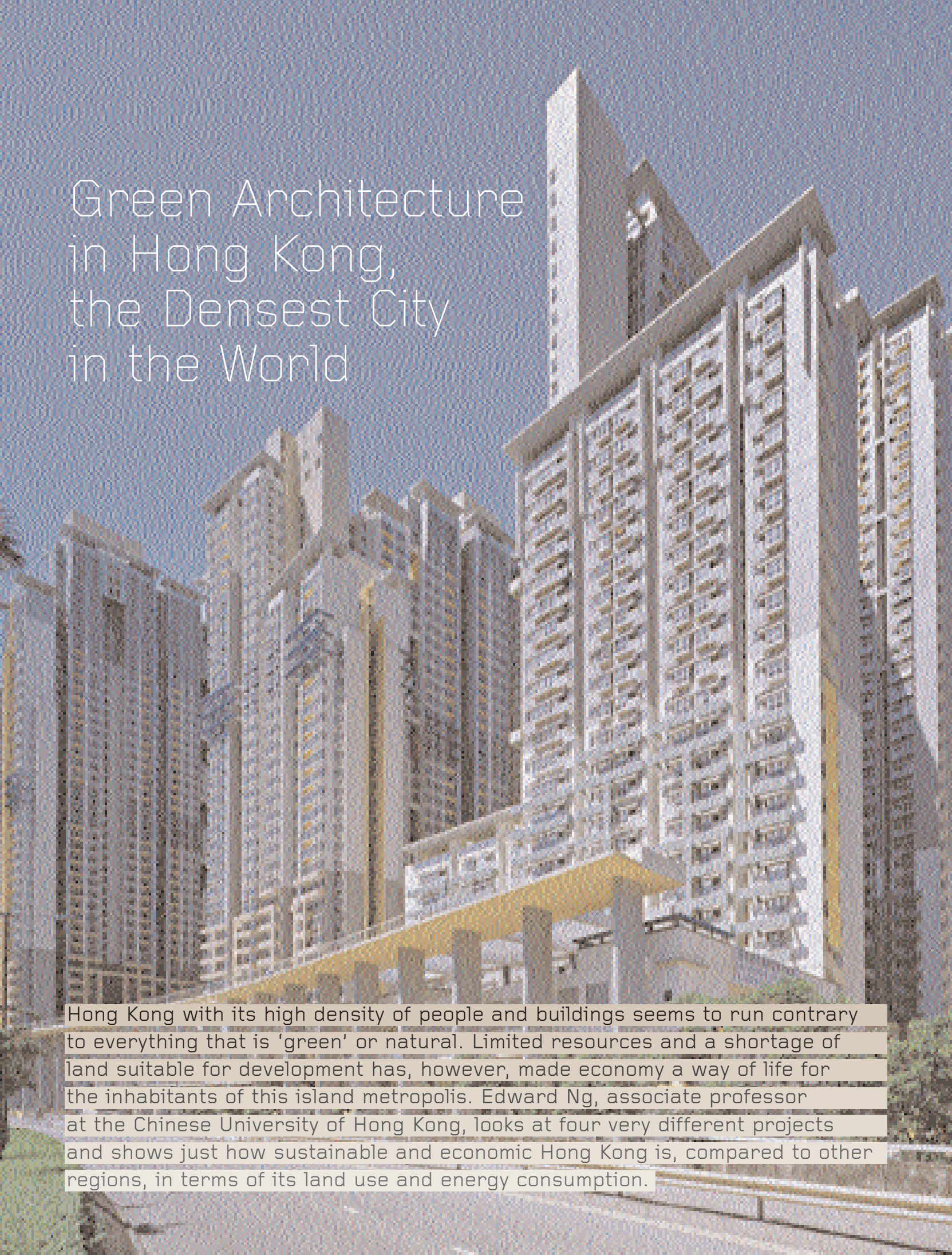
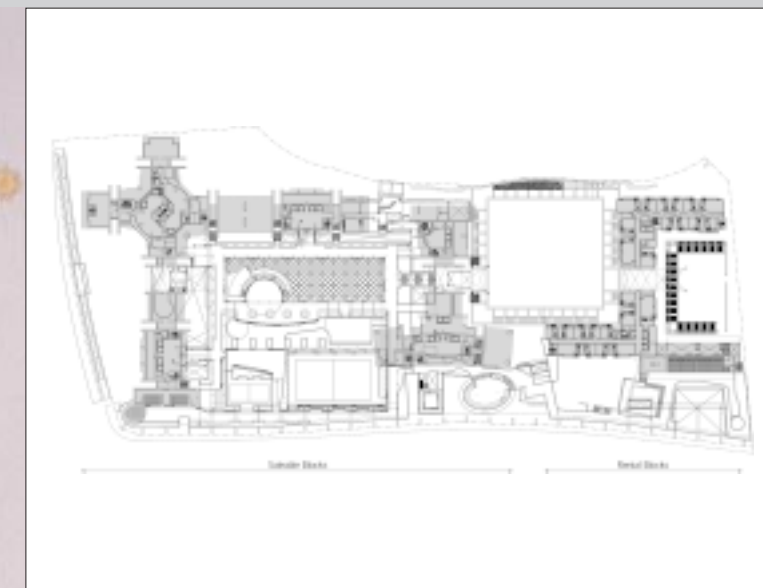
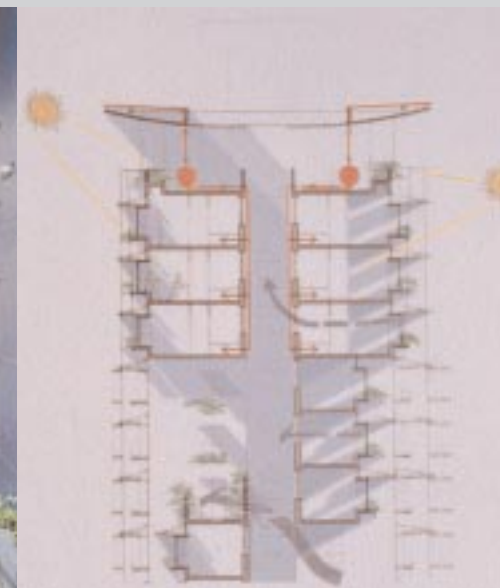


Green Architecture in Hong Kong, the Densest City in the World



Hong Kong with its high density of people and buildings seems to run contrary to everything that is 'green' or natural. Limited resources and a shortage of land suitable for development has, however, made economy a way of life for the inhabitants of this island metropolis. Edward Ng, associate professor at the Chinese University of Hong Kong, looks at four very different projects and shows just how sustainable and economic Hong Kong is, compared to other regions, in terms of its land use and energy consumption.



Opposite
Anthony Ng, Verbena Heights,
Tseung Kwan O, 1997.

Above left
View of the main entrance
to the landscaped podium
of Verbena Heights.

Above middle
Drawing outlining the concepts
behind the environmental
provisions at Verbena Heights.

Above right
The site plan of Verbena
Heights.

Rumour has it that when the Empress Dowager of the Ching dynasty was asked to cease sovereignty of 'an island' to the British Empire, she enquired of her eunuch, 'Where exactly is it?'. It was noted that she was a bit impatient when the map of the Chinese empire and the insignificant dot at its corner was shown. 'What are the British going to do with a barren piece of rock like that?' she questioned. 'And,' she added, 'I would like to make it a point that I should not be disturbed with such a minor request next time.' She could never have imagined that, 150 years on, this little 'rock' of 1,000 or so villagers would become a major Asian metropolis and earned itself a place as one of *National Geographic's* 10 'must visit' places.

Hong Kong's climate is subtropical. For half the year, from October to March, it tends towards temperate with pleasant breezes, plenty of sunshine and a comfortable average temperature of 20°C. Occasional cold fronts from continental China can lower temperatures to below 10°C in urban areas, but nonetheless, these are the best months of the year. The other half of the year is hot and humid. Humidity of over 80 per cent and a daytime temperature that averages 28°C and rises to 34°C characterise the weather. From time to time during the summer months tropical cyclones bring heavy rain and high winds of 150 kilometres per hour or more. Environmentally, designing buildings for Hong Kong is not difficult. The strategy is to maximise natural ventilation, minimise solar heat gain and provide sturdy shelter from heavy tropical rainstorms and cyclones.

Dealing with the environmental characteristics of Hong Kong is straightforward. However, attempts to classify this island metropolis according to any known social, cultural, urban or environmental theory has failed. As the locals say, 'There is only one Hong Kong, and it is impossible to find imitations'. In a nutshell, Hong Kong is located at the southern end of China. It is a collection of islands that

total 1,100 square kilometers and has a population of seven million people. Its economy is one-seventh of the United Kingdom's with a GNP of US\$26,000 per capita. It boasts the world's busiest container port and houses some of the world's most profitable enterprises. An airport the size of Gatwick and Heathrow combined has just been built on land completely reclaimed from the sea. Hong Kong is a jungle city of high rises. The foundations of the world's tallest building are being laid. And over 10 million visitors arrive each year, to marvel at all this. Yet, amidst all the hustle and bustle of the economy and international travel, Hong Kong also boasts a collection of country parks that cover almost 50 per cent of its land area. It houses one of Asia's most important wetland under the 1971 Ramsar Convention. It is also home to the 100 or so unique and endangered 'pink' dolphins. And, within its tight boundaries, it is still possible to find fishing villages and settlements which are almost untouched by the onslaught of civilisation.

Hong Kong is a land of paradoxes. It defies gravity and common sense – literally in that order for visitors who flew over the Kowloon city to land at the old Kai Tak Airport. Given the circumstances and the dilemma, how should one proceed to define green architecture in Hong Kong? If there is such a thing in an ultra-dense, ultra-compact metropolis, what is it? And how should it be critically understood? What shade of green could it be conveniently referenced to?

Hong Kong was a 'sustainable' city long before the term was used – or hijacked – by environmentalists. Since 1949, when the communists took over China, it has been a safe haven for economic and political emigrants from the mainland. Millions came here over a period of some 30 years, bringing nothing but a hope to 'ensure and sustain a quality of life'. This desire to survive and make a living has remained the spirit of Hong Kong until today. The city has no natural resources of its own. Apart from the air one breathes everything, including water, has to be imported. The gregarious and tolerant attitude of Hong Kong's average inhabitants can best be seen in the houses, or pigeonholes, they live in. Mass housing of unprecedented height and density is the norm. The newly constructed residential sites in the city's satellite