

City comparisons: Hong Kong, Shenzhen, Macau

Size, Footprints, and Topography

Pearl River Delta

The delta occupies an area about 40'000 km²; it extends from Jiangmen to Huizhou on the coast, and as far as Guangzhou and Zhaoqing towards the inland. The scattered built surface of the delta has grown at a fast pace in the last decade, and prognoses estimate it will continue to do so. This phenomenon is related to the population and the economic growth. The topography close to the river is rather flat, mountainous areas emerge west and east along the coast. The rapid growing urban fabrics have avoided higher grounds and have searched for other expansion solutions, such as sea reclamation (Hong Kong and Macau) and flattening hilly landscapes (Shenzhen).

Macau

The city lies on three islands on the west side of the delta coastline; it has a surface of 28 km². The islands are well interconnected and have grown in surface due to reclamation projects. Some green areas remain on the islands (such as hilltops close to residential areas on the lower islands), however most of land has been urbanized.

Hong Kong

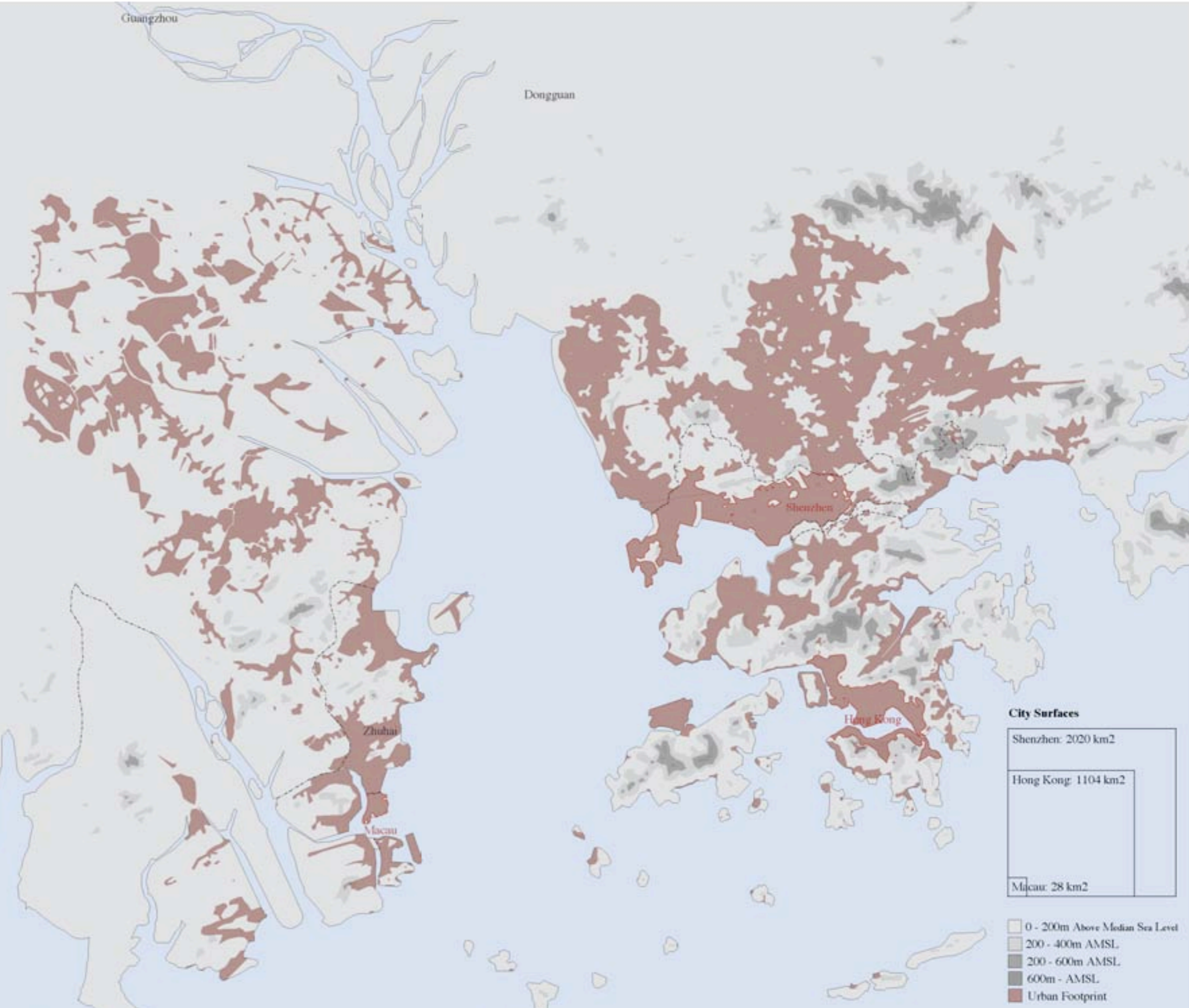
The city lies on the east side of the delta coastline; it has a surface of 1104 km². The core of the city lies on Kowloon Half Island and on Hong Kong Island, however various city parts extend to other regions. Urban growth has expanded in a horizontal manner along the lower contour lines and reclaimed land; most of the higher ground remained untouched by urbanity.

Shenzhen

The city lies on the east side of the delta mouth; it has a surface of 2020 km². The recently emerged city sits on the closest point to Hong Kong on mainland China, wrapping the borders and coastlines. The area was flattened to cope with the coming urban growth. Few green hilltops remain close to the city, they are also starting to be taken over by urbanity.

Sources

Google Earth Satellite Photo; Chinese Regional Topography Map T. Le Bao, Insight City Guide Hong Kong Macau and Guangzhou, APA Publications, 2006



| City Surfaces | |
|---------------|----------------------|
| Shenzhen: | 2020 km ² |
| Hong Kong: | 1104 km ² |
| Macau: | 28 km ² |

- 0 - 200m Above Median Sea Level
- 200 - 400m AMSL
- 200 - 600m AMSL
- 600m - AMSL
- Urban Footprint

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Density

Pearl River Delta

The delta shows a scattered density layout, varying greatly from urban to non urban areas. Five cities in the area exceed the 5'500 person per square kilometre density; these are: Macau, Hong Kong, Shenzhen, Dongguan, and Guangzhou.

Macau

With a surface of 28 km² and a population of 0,5 million people Macau presents the highest density as a city in the delta with 17'857 persons/km². The most densely populated area in the city is the northern part bordering Zhuhai.

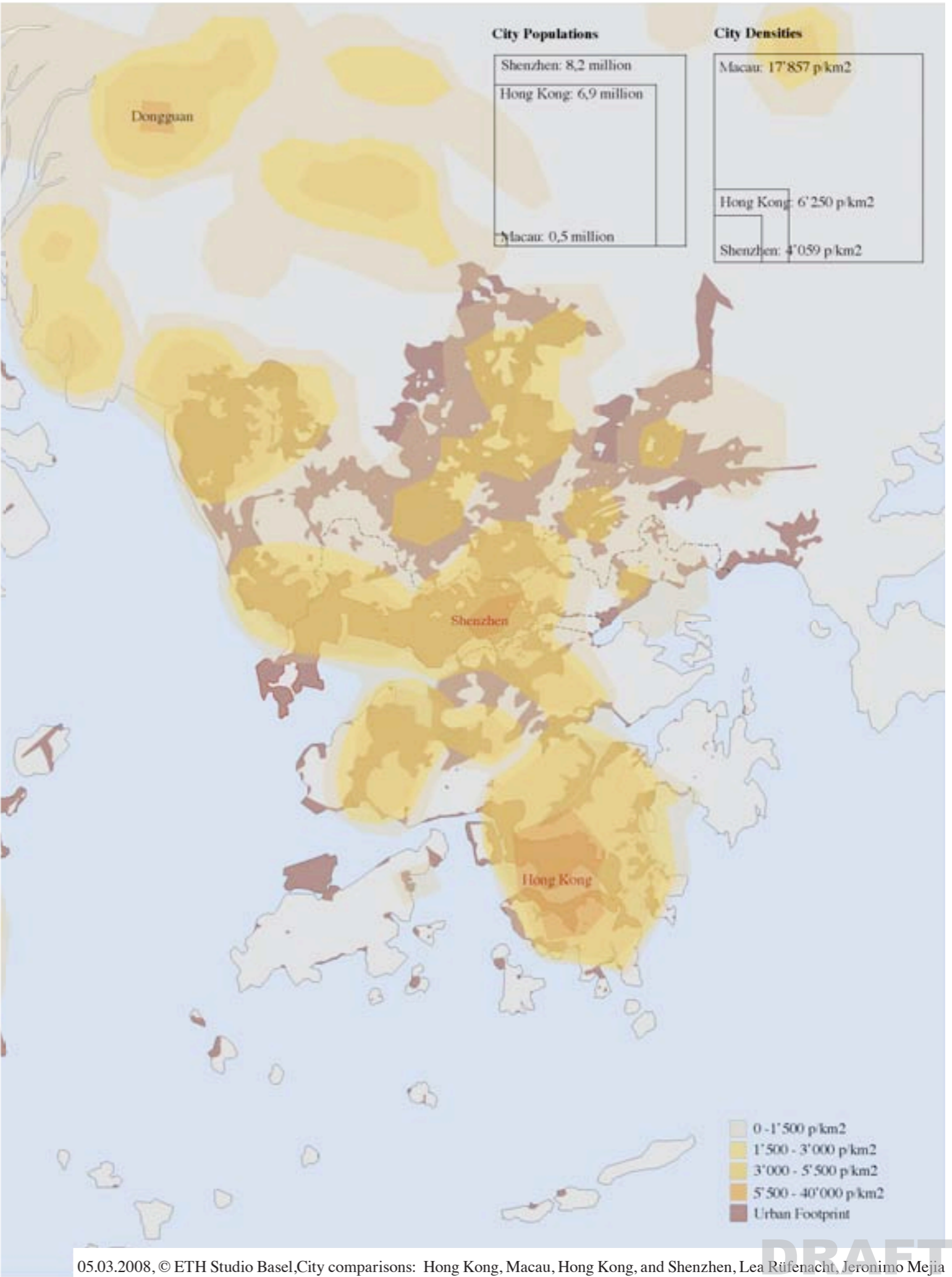
Hong Kong

Hong Kong's 6,9 million habitants sit on 1'104 km², producing a density of 6'250 people per square kilometre. The densest areas are northern Hong Kong Island and southern Kowloon.

Shenzhen

Shenzhen has a surface of 2'020 square kilometres and 8,2 million people, which produces a density of 4'059 people per km². The densest areas are the older parts of town close to the Hong Kong border.

sources
www.populstat.info; www.wirednewyork.com



City Populations

| |
|------------------------|
| Shenzhen: 8,2 million |
| Hong Kong: 6,9 million |
| Macau: 0,5 million |

City Densities

| |
|------------------------------------|
| Macau: 17'857 p/km ² |
| Hong Kong: 6'250 p/km ² |
| Shenzhen: 4'059 p/km ² |

- 0 - 1'500 p/km²
- 1'500 - 3'000 p/km²
- 3'000 - 5'500 p/km²
- 5'500 - 40'000 p/km²
- Urban Footprint

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History
Pearl River Delta
 The first stone-age settlements in southern China date back to 4000 BC. Major migratory waves to the coastal lands from the mainland occurred during the Qin and Han dynasties. During the Tang Guangzhou was already an important economic centre. The coastal area remained scarcely populated, mostly in the form of fishing villages. Europeans started to show interest in China and Asia during the 15th and 16th centuries.

Macau
 The Portuguese established a permanent trading settlement on Macau on 1557⁽¹⁾. In 1576 the settlement became an Episcopal see. In the 17th century the port prospered but was also damaged by Dutch attacks. In 1851 and 1864 the Portuguese settled in Taipa and Coloane respectively. In 1887 Macau officially became a Portuguese colony. In 1949 the People's Republic of China was established, after which the possession of the colony was put into question⁽²⁾. In 1999, Macau was handed over and became a Special Administrative Region. Due to land reclamation the city has been able to expand in size and house its many casino without really putting the historic centre at stake⁽³⁾.

Hong Kong
 The British started trading with the city of Guangzhou in the 17th century and have temporary settlements on Hong Kong Island⁽⁴⁾. This gave way to the First Opium War in 1839, after which Hong Kong Island was formally ceded to England as a colony⁽⁵⁾. In 1842 Victoria City was founded on the island; in 1860, after the Second Opium War, the tip of the Peninsula of Kowloon also became part of the colony⁽⁶⁾. 1898, Britain obtained a 99-year lease for Lantau Island and the New Territories. The colonial city flourished and expanded in the late 19th and early 20th century. Japanese forces occupied the city during WWII⁽⁷⁾. The handover occurred in 1997. Currently, the city continues to grow along the lower contour lines of the islands and peninsulas; it is the most prosperous city in the Pearl River Delta area.

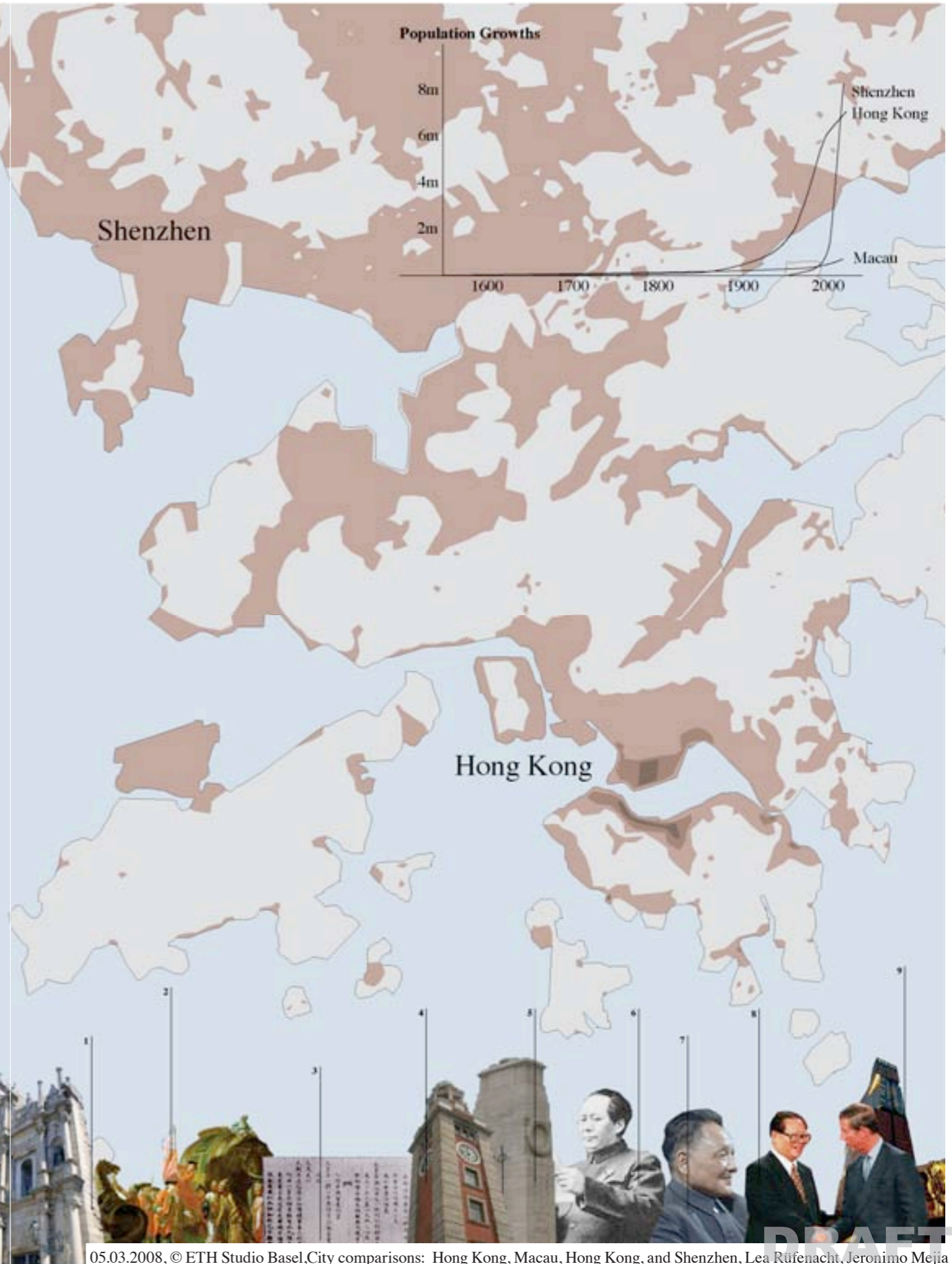
Shenzhen
 The city consisted of a fishing village till 1979, when Chinese leader Deng Xiaoping promoted the creation of the first Special Economic Zone to experiment with capitalism⁽⁸⁾. In 1988 it was given the right of provincial-level economic administration. The city is now amongst the largest in Pearl River Delta area.

Scale 1:250'000

sources
 various authors, Mapping Hong Kong, Hal Empson, 1992;
 Chinese Regional Topography Map: T. Le Bas, Insight City Guide
 Hong Kong, Macau and Guangzhou, APA Publications, 2006;
 www.wikipedia.org; www.populstat.info

Legend

- 1940 - 2008
- 1890 - 1940
- 1600 - 1890
- - 1600



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Morphology of urban structure *Hong Kong*

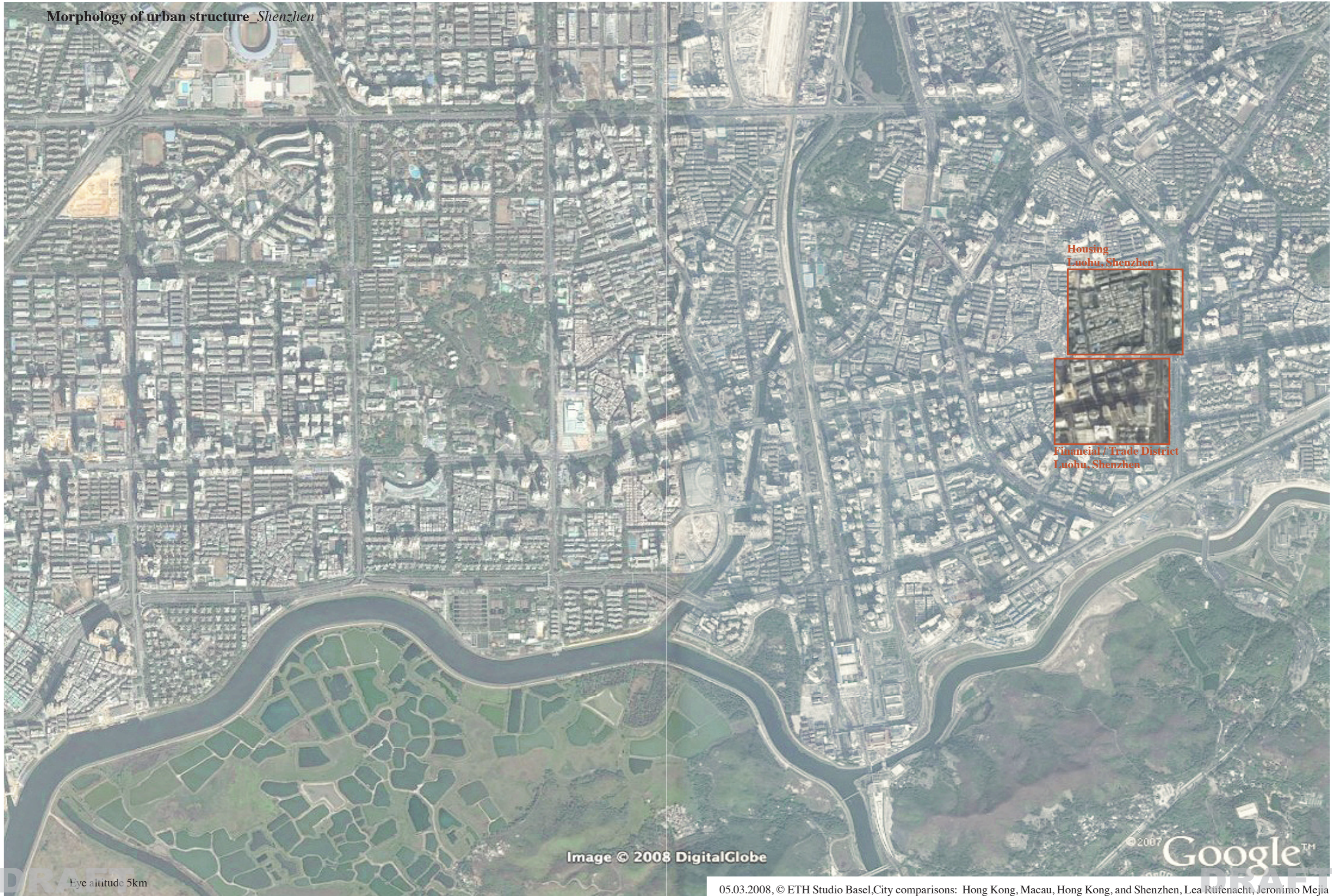
Chinese Market
Yau Ma Tei, Kowloon

Central Business District
Hong Kong Island



City comparisons: Hong Kong, Shenzhen, Macau

Morphology of urban structure_Shenzhen



Eye altitude 5km

Image © 2008 DigitalGlobe

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City comparisons: Hong Kong, Shenzhen, Macau

Morphology of urban structure_Macau



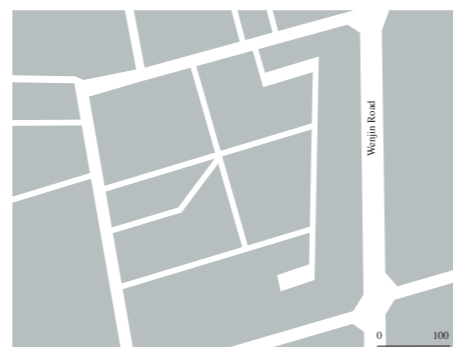
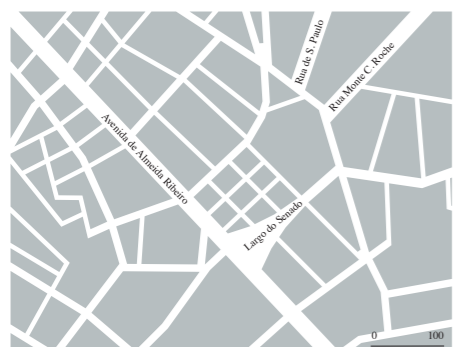
Eye altitude 5km

City comparisons: Hong Kong, Shenzhen

Morphology of urban structure

Specific-city

Hong Kong, Shenzhen und Macau are characterized by an own specific urban structure. Macau distinguishes itself for its colonial Portuguese heritage, Hong Kong shows a dense Chinese urban disposition, and Shenzhen brings up a peculiar cluster structure.



Historic Center Macau

Macau's historic centre is shaped by a composition of European urban structures, perceivable in the antique colonial architecture. The historic buildings, streets and squares belong to Portuguese heritage and are under UNESCO protection. The defining structures of the historic centre are the narrow streets and the bright pastel-colored, colonial buildings. Today most of these structures have been restored or renovated and are related to West European historic constructions and urban typologies, rather than that to Chinese architecture and urbanism.

Chinese Market Yau Ma Tei, Kowloon

Yau Ma Tei, Kowloon, is a Chinese based district, where street markets and old buildings have managed to escape demolition and retained their original character. Its morphology is characterized by high density, clear symmetry and low-rise buildings. This city fragment is a pattern of commercial streets, residential, and office buildings; a village in the city. The main roads distinguish themselves by dazzling and eye-catching neon colored advertisements.

Housing Luohu, Shenzhen

Luohu District contains a mix of urban functions, respectively a separation of different land uses. The grid of streets divide the district into rectangular street blocks, which are subdivided into smaller building lots. The residential areas of the districts lay closely to the business and financial skyscrapers on the main highways. This urban layout is defined as cluster development; it operates as an independent city unit and can be found all along Shenzhen. The cluster layout is characterized by a central tide and peripheral looser dense spatial planning.

Downtown Macau

Downtown Macau is a modern development on reclaimed land; it is where most of the casinos and hotels are located. The historic centre remained untouched in the older part of the island; an unusual practice compared to the Chinese mainland. The commercial constructions and theme parks are characteristic elements of Macau's downtown area. Its modern morphology is characterized by a strict planned street grid and high block buildings.

Central Business District Hong Kong Island

Hong Kong Island serves as the financial, business, and commercial centre of Hong Kong. It characterizes itself by its high skyscrapers, wide highways and large squares. The irregular shape of the plots were formed mostly by the configuration of the main streets. Nearly all the sights are contemporary; most of the buildings were built during the British administration. There are also places for temporary markets and streets traders among the financial towers; few colonial buildings survive. Such a composition gives an impression of a mass of concrete and glass between natural limits, namely waterfront and hills.

Financial / Trade District Luohu, Shenzhen

Luohu District is Shenzhen's trade and financial centre as well as base for network services. Its urban structure is characterized by large scale constructions, extremely tall buildings, and an extensive transport network. Its pregnant skyline is located along the main traffic axes, which stretches itself throughout the complete city, and is home to business and commercial entities. Typical aspects of Shenzhen are linear developments and a scale that rivals that of Hong Kong.

sources
www.map.google.com; Second Year Advanced Research Studio Prof. Yushi Uehara, Village in the city, unknown urbanity in China, Berlage Institute Research Report, 2005; Merian, Hong Kong and Macau, Merian, dez. 2004; Stadt Bauwelt 36.07, Hong Kong, sep. 2007; Mihai Craciun, Ideology of Shenzhen, Great Leap forward

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Distribution of urban functions

From Macau's compact layout to Shenzhen's extensive planning, mapping the predominant urban functions of the three cities show a scale growth that also coincides with the timeline.

Macau

Macau's development is characterized by the old Portuguese footprint and the new built and planned urban structures. The main commercial areas are located on new reclaimed land, with casinos, hotels and shopping centers. On the historic centre and Tapia Island a mixture between commercial and housing structures can be found; the largest residential area is located at the northern part of Macau. The city only owns one single small industrial park at the south of Coloane. Only a little green area still remains on the northern island; in Tapia and Coloane green zones are more abundant.

Hong Kong

Hong Kong is a territory with high density; its urban footprint is mainly concentrated on the lower lands of the islands and peninsula. The industrial areas can be found on the coastal areas of Kowloon and the New Territories. Since the importance of industry in Hong Kong is fading out, many factories have been torn down and were replaced by the commercial buildings. The commercial activities are mostly situated on the northern waterfront of Hong Kong Island as well as on Kowloon's sea front and inner streets. Also the New Territories have some small concentrated commercial areas between its the main residential spaces. The residence areas are mostly accommodated close to the commercial areas and are surrounded by green zones. A few green and open spaces are scattered between the dense skyscrapers, a natural border is created by the natural hills behind them built areas.

Shenzhen

Shenzhen is the fastest growing city in the world. The urban structure is characterized by main linear axes wrapping different urban zones. Most industrial areas are concentrated on the sea front. The commercial spaces are mainly located along the grid main axes. A mix between residential and commercial areas can be found as well in Shenzhen. Some of the older residential areas create a dense pattern in the city units. There are also newer residential low-rise buildings, Hong Kong-like residential towers are seldom. The green space is scattered in the city and it offers a number of large parks and recreation areas.

sources

www.map.google.com; The Rough Guide to Hong Kong & Macau, sixth edition, 2006; www.rentalartours.net; Guangzhou Institute of Geography, Atlas of natural resources and economic development of Shenzhen, Science press, 1985, China; Map: Land utilization of Hong Kong, Planning Department, the Government of the Hong Kong SAR, 2007

Scale 1:250'000

