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Hong Kong as an Urban Experiment: the Density Question



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Hong Kong as an Urban Experiment The Density Question

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Why is Density Important ?

- Increase in urban population, especially in China
- Trend in Compact Development



High Density Development

- Advantages :
 - Save land, environment, and infrastructure costs
 - Shorten travel distance, save transport energy
 - Support mass transit system, low carbon city









Density of Hong Kong

- Land Area
- Population
- Overall Density
- Urban Area Density
- Mong Kok's Density

1,100 sq km

- 7.10 million
- 6,400 persons/sq km
- 20,700 persons/sq km
- 110,000 persons/sq km
- Street Block Density 400-600,000 persons/sq km



High Density Development

- Advantages :
 - Save land, environment, and infrastructure costs
 - Shorten travel distance, save transport energy
 - Support mass transit system, low carbon city
- Disadvantages :
 - Crowding
 - Social pathology



High Density and Crowding

- No direct relationship between social pathology and high density
- Crowding is a psychological feeling
- Chinese culture can tolerate high density



Man and the Urban Environment COMMUNITY FACILITIES AND MANAGEMENT

DESIGN AND AESTHETIC ENVIRONMENT



OPEN SPACE

TRAFFIC



Feeling of Crowdiness

- Design and layout of buildings and sites
- Traffic and movement
- Clean and well managed living and working environment
- Cultural and socio-economic background and habit of a person
- HK has been quite successful in reducing the feeling of crowdiness through good planning, design and management





High Density ?





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Building Density



Comparison between Respondents' Perception on Building Heights between Hong Kong and Singapore







Some Measures in Hong Kong in Reducing Crowdiness



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Ground Floor







Housing Management and Public Education











Wall Effect



- Air Ventilation
- Heat Island
- Air Quality and Pollution
- Sun Light

Air Ventilation Assessment

Building Design to Foster a Quality and Sustainable Unware welcome I Built Environment Invitation for Response Document 2009





Figure 10 – Building Separation



→ Building Separation Distance

Figure 11 – Building Setback



The 'canyon' effect is created when tall buildings are abutting narrow streets which results in poor air ventilation, high temperatures, poor pedestrian environment generally. In addition, narrow footpaths often cause pedestrians to step into the road.



Building setback can improve the flow of air either through or around the building, enhance air quality in the neighbourhood, and provide safety and better environment for pedestrians.

Planning, Design and Management of High Density Living

- High density living environment is more demanding than low density living environment
- A small planning and management error will affect a lot of people
- Good urban environment cannot totally rely on good planning – it needs good management
- Better planning, design, and management can reduce the negative impacts of high density living



Thank You



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