

Urban planning in Singapore - An Interview with Mr. Liu

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Im Anschluß an den Aufsatz über den 'öffentlichen Wohnungsbau in Singapur' von Will Hammelrath in der letzten PACIFIC NEWS (Nr.13) folgt nun ein Interview mit einem der Chefplaner des öffentlichen Wohnungsbaus in Singapur, Liu Thai Ker. Das Interview wurde von der Hamburger Stadtplanerin Christina Delius via E-Mail mit Herrn Lui geführt und erschien erstmals in der Nummer 63 von INTERPLAN, dem Newsletter der International Division der American Planning Association (APA). Wir geben das Interview mit freundlicher Genehmigung der APA hier in leicht gekürzter Form wieder. Informationen zur International Division der APA finden sich im Internet unter der Adresse: www.interplan.org; zur APA unter www.planning.org.

Interview questions

Housing

Question: Most of Singapore's population lives in New Towns planned and built by the HDB, which consist largely of very densely populated high-rise towers. In recent years the strategy has been to diversify the architecture, and also to build less high-rise and more medium height buildings. Mr Liu, as former Chief Executive Officer of the HDB, can you explain why this decision was made?

Answer: Given the small land area of 648km², and projected large population size, over 4.5 million people, Singapore has no choice but to go for high-rise, high density public housing, if we are serious about providing good housing for every citizen. There is no known attempt by the government to go for medium-rise public housing.

Further, we have to define what is meant by densely populated high-rise. A densely developed housing estate does not necessarily have a high population density. The dense appearance is a function of plot ratio or floor area ratio, and to a lesser extent, of building height. But population density is a function of not only plot ratio, but also the floor area occupied per person, which in turn is a function of family size and apartment size. The smaller the family size, or the larger the apartment size, the lower the population density.

As to population density, it averages out to 760 persons per ha, which is definitely moderate, compared to over 1,500 person per ha in Hong Kong. In Singapore, the average household size is 3.7 persons now and the majority of apartment type is the 4-room apartment with a net floor area 90m². That works out to be 24m² per person. So although the plot ratio is moderately high, the overall floor area occupied per person is very high, therefore the person per hectare density is relatively low. What it means is that Singaporeans can enjoy large apartments despite shortage of land.

A word or two more on our apartment sizes. These have evolved over the last four decades, reflecting rapid economic development and higher affordability among the people. In the last 5 years, the government, in anticipation of a larger population size than earlier planned, has found it necessary to increase the plot ratio and building height.

The government does not arbitrarily increase or decrease building height and density. Plot ratios are set to make sure that there is enough land to build enough

residential floor area to satisfy the needs and affordability of all Singaporeans now and in the long term future. For this reason, even though there may be ample undeveloped land in Singapore now, we need to maintain a high plot ratio of public housing development in order to leave ample space for future generations and yet maintain a high standard of housing.

Transportation

Question: Singapore has a good public transportation network, which obviously helps to keep the use of private cars down. But furthermore the Singaporean government has actively discouraged car ownership, for example through road pricing. Could you explain this a little further and give some other examples?

Answer: The Singapore government is very committed to keeping traffic flowing. This minimizes travel time for motorists and goods, and ensures that emergency services reach their destinations in good time. To do so, the government has taken a 3-pronged approach.

First, good public transportation system. This includes a good taxi service plus a comprehensive mass rail transit system supplemented by buses and, more recently, by the light rail transit system. The first LRT will be commissioned in Nov 1999.

Second, continuous improvement of road network through the construction of new roads, widening of roads where possible, and a few tunnels in congested areas.

But these measures to improve transportation do not automatically reduce traffic in the central area of



Singapore. As a third approach, the government has found it necessary to introduce measures to discourage car ownership as well as car usage in the congested CBD and on heavily traveled roads. For example, government requirements for car parking provision for buildings in the CBD is lower than those in the outer regions. Car parking charges can be set by car park operators to truly reflect market demand and serve as a deterrent to driving into the CBD. The Area Licensing Scheme (ALS) was introduced in 1975 to discourage traffic entering the CBD during morning peak hours. The system required a license, costing S\$3.00 (1) initially and later S\$4.00, displayed on the windscreen when a passenger car carrying fewer than 4 persons entered the CBD during peak hours. In 1989, the scheme was modified to include all vehicles except emergency vehicles and public buses. The hours were extended to alleviate the evening peak hours. Later, the system was extended from 7.30 am to 7.00 pm on weekdays and 7.30 am to 2.00 pm on Saturdays to even out traffic flow in the city throughout the day. The cost of the license was also adjusted. However, purchase of the license was cumbersome and was inflexible for fine-tuning charges according to usage. The

Electronic Road Pricing System (ERP) was thus formally introduced in April 98. This system has the ability to vary the charges based on vehicle type, location and time of day. The objective is to shift the emphasis from vehicle ownership taxes to usage-based cost.

There are other measures to help manage car ownership as well as car usage in general. Through taxes and a vehicle quota system (VQS) the vehicle population is regulated in a manner that is equitable, controls traffic congestion and maintains overall revenue neutrality for the government.

The COE is the heart of the Vehicle Quota System (VQS) which regulates the growth of vehicle population, that takes into consideration existing road capacity, traffic conditions and the number of vehicles that will be scrapped for the year. The COE is essentially the right to own a vehicle. All vehicles have an entitlement for ten years from the date of registration.

As an incentive to replace old cars, the Preferential Additional Registration Fee (PARF) scheme was introduced in 1975. If a vehicle owner replaces his vehicle before it reaches 10 years old, he can enjoy the benefits of PARF when he registers a new vehicle.

The fact that the public transport system

is widespread, with frequent services, comfortable and highly reliable, has gone a long way towards helping Singaporeans accept the measures to minimize car ownership and discourage car usage in congested areas. The government is likely to continue to improve the availability and attractiveness of public transportation as well as to build new roads, expressways and tunnels according to the master plan. Despite all these measures, vehicle ownership continues to rise, from 0.154 vehicles per person in 1980 to 0.176 in 1997. If the traffic volume on roads continues to increase, probably further new measures would be introduced in order to maintain traffic flow.

Singapore is a city planned with mass transit in mind. Mass transit lines run along high density population corridors. Rights of way for future rail lines have been reserved. Therefore, the capital cost, not having to pay for high land prices, can be kept low. The operation cost for rail and buses can be self-sufficient.

Singapore's Future

Question: Singapore has the image of being clean and green – but also of being very controlled and maybe a little boring. In your contribution to Ooi Giok Ling and Kenson Kwok's book titled 'City and The State', you mention some efforts to „enrich the personality of the city“. Can you describe this approach? What are your projections for Singapore in the future? What will the city look like in 2030?

Answer: The image of Singapore as a boring city is a thing of the past. It is true that through the 60's, 70's and as late as the '80s, many people considered Singapore to be too clinical. However, after the mid-80s these comments suddenly disappeared. In the 90s, visitors would go as far as describing Singapore as an exciting place to visit – a place full of energy and activities.

There are several reasons for the transformation. By mid-80s, Singapore already had about 25 years of solid urban development. In the early days, we invested heavily in infrastructure – on things underground, or ports and power stations outside the city, or the road and rail network. Even the buildings had to be built with low budgets. In the 80s, there was spare capacity for more investments above ground, with greater refinement. We could afford to invest in more attractive buildings, public squares, parks, footpaths and street furniture. On top of that, with Singapore as a whole becoming more affluent, there has been increasing enthusiasm and greater need for arts and culture. That has helped generate more creative human activities and artistic embellishment of public spaces around the city. Considering that it has taken charming European cities centuries to be where they are, Singapore is progressing quite well in the last 34 years.

Urban development is more than a three dimensional exercise. It needs the time dimension. When we planned the city, we were not in a hurry to be interesting. We wanted the infrastructure to be done right, and the urban landscape to be orderly, harmonious and user-friendly. We believed that, these would provide a handsome urban stage for a more creative urban drama to slowly take place. If we had been impatient, or overly concerned with criticisms by outsiders, we would have created an artificially varied environment with no aesthetic depth. Singapore would have become a theme park rather than a real city.

As to the future of Singapore, I believe that the basic form of the city is quite set. The road and rail networks will

essentially remain except that there will be more light rail lines to complement the main systems. The clean and green quality will remain, except that trees will be 30 years more mature and majestic. The number of buildings and density of the city will increase. Collectively, they demand even greater skill to manage – to strike a comfortable balance between solid and void, buildings and spaces. Certain main streets will be studied in detail for overall upgrading, environmentally, architecturally and commercially. The quality of architecture will be of international standard in terms of quality of construction and aesthetic appeal. But, we are not in the race of vying for taller buildings. There will be more cultural buildings and urban squares. Footpaths will become more of an extension of living spaces than a means for pedestrian traffic. The unique personality of the city will become more pronounced, with greater emphasis to highlight its tropical and Asian flavour. Existing historical buildings will mostly remain and probably go through another few rounds of renovation to become even more authentic. Streets will be lined with more varied and good quality street furniture. Singapore River and the downtown water courses will be bustling with pleasure crafts to reinforce the fact that Singapore is an island-city-nation.

Other Places

Question: *Drawing from your experiences in China, where you are involved as an adviser, how do you see the urban landscape changing there?*

Answer: The miracle of the modernisation of China is associated mainly with economic and technological progress as well as some cultural

development. However the same cannot be said of the quality of urban and even rural environment in China. While many cities seem to have their master plans, few, if any, will have workable master plans. Even if there is a workable master plan, the decision making process in these cities is confusing and tends to undermine any good plan. Many people in the government have their say on how a city should be developed. Developments are often completed before planning and architectural designs are finalised. With few exceptions, Chinese cities suffer from serious air and water pollution, traffic congestion, ugly urban landscape and an unfriendly environment, particularly for the young and old. In their quest for uniqueness and variety of building design, these buildings not only destroy the unity of urban landscape but also they themselves look like urban architectural caricatures. There is a great and urgent need to address the urban problems in China before they become too difficult and costly to rectify.

The interview was conducted by email. 9 November 1999

(1) S\$ 1 currently is equivalent to about US\$ 0.50. (C. Delius)

Further reading

Ooi Giok Ling, Kenson Kwok (ed.) 1997: *'City and The State - Singapore's Built Environment Revisited'*, Institute of Policy Studies, Oxford University Press, Singapore

Ooi Kiok Ling (ed.) 1995: *'Environment and the City'*, Institute of Policy Studies, Times Academic Press, Singapore

Martin Perry, Lily Kong, Brenda Yeoh (ed.) 1997: *'Singapore - A Developmental City State'*, John Wiley & Sons, Chichester, UK,