NEIGHBOURHOOD AND BUILDING FORMS
A Study Of The Hong Kong Public Housing Blocks

by

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ABSTRACT

Hong Kong is currently undergoing a programme of massive public housing construction to improve the housing conditions of low income people. The first series of public housing blocks, called the Mark resettlement blocks, were built in 1954. Since then, the Hong Kong government has been developing different public housing forms. These include the Trident blocks in the 1970s and the Harmony blocks in the 1990s. However, these housing blocks were primarily designed to minimise the construction cost and to maximise the construction speed. There was little consideration for the social aspect of public housing. By comparing the neighbourhoods of the Mark resettlement blocks, Trident blocks and Harmony blocks, this thesis investigates the impact of physical planning on neighbourhood formation in public housing in Hong Kong. The thesis also examines the factors that affected the different neighbourhoods. This thesis finds that the key factors affecting neighbourhood formation are communal opportunities, compatibility of social background, familiarity of living environment, social pride and social involvement. To encourage neighbourhood formation in Hong Kong, this thesis recommends the following housing planning principles. First, different building types need to be integrated in the same housing estate to meet the needs of different users and to provide greater choice. Second, encourage the formation of local neighbourhood niches by grouping residents with similar interests and social conditions. Third, more close-to-home communal spaces are needed in the public housing estates. These spaces can be integrated with commercial and community facilities at both ground level and upper level neighbourhood “sky” gathering places.
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Chapter 1

THE BACKGROUND

1.1 Introduction

The shortage of housing is one of the major problems faced by most developing cities in Asia. Bangkok, in Thailand, has over 1.2 million people living in squatter areas. Jakarta, in Indonesia, is another example of housing shortage where 3.3 million people are living in poorly constructed squatter houses (Khan, 1994; Marcussen, 1990). Like other Asian developing cities, Hong Kong has been facing severe housing deficiency since the Second World War. In the 1950s and 1960s, there were approximately 450,000 people living in squatter areas and dilapidated buildings in Hong Kong. The housing deficiency in Hong Kong is due to rapid population growth exacerbated by the influx of over two million Chinese refugees from Mainland China in the two decades after the Second World War. With a land area of just over 110,000 hectares, the rapid population growth and the influx of migrants resulted in the proliferation of squatter areas in Hong Kong.

In the 1950s, approximately 80% of the squatter dwellings were temporary structures simply constructed with materials like wood, corrugated metal plates and asbestos roofing. The squatter areas were overcrowded with few amenity facilities. The deterioration of the physical environments and the deterioration of the health and sanitary conditions in the squatter areas led officials in Hong Kong to eradicate the squatter areas and to rehouse the squatters. In 1954, the government launched the extensive rehousing projects when a great slum fire rendered over 53,000 squatters homeless in Shek Kip Mei. Since then, the Hong
Kong government has determined to clear all the squatter areas and to resettle all the affected residents in government public housing. (Wong et al 1978, Yeh and Laquian, 1979, Castells et al 1990, Smart 1992).

1.2 The Success of Massive Public Housing in Hong Kong

Unlike most of the cities in Asia, with the exception of Singapore, the rate of construction of public housing in Hong Kong is remarkable. In the 1980s, Bangkok produced about 2,500 new public housing units each year, whereas the Hong Kong government produced 53,000 public housing units each year (Khan, 1994, Hong Kong Housing Authority, 1990). Of these 53,000 housing units, 34,000 units were designed for rental purposes\(^1\) and 19,000 units were built for the home ownership scheme\(^2\) (Hong Kong Housing Authority Report 1990).

In 1980, over 45% (2.7 million) of Hong Kong residents lived in government funded public housing. The percentage increased to over 50% (2.86 million) in 1990. At that time, the population of Hong Kong was around 6 million. In other words, within the decade, over 300,000 residents (5% of the total population) were provided with newly constructed public housing units. Such rapid production of public housing was a result of active implementation of extensive public housing projects in Hong Kong.

\(^1\) Rental housing is usually allocated for low income families who are affected by slum clearance, redevelopment of old public housing, fire victims and resettlement from temporary housing.

\(^2\) Home ownership scheme provides flats with prices lower than private housing. The standards of public housing in the home ownership scheme are higher than the rental housing. The home ownership scheme is designed for low middle class families who cannot afford to buy their homes in the private sector. Any families, who are Hong Kong residents, with total income lower than the application limits are eligible to apply.
Figure 1.1 Locations of the public housing estates in Hong Kong
Since then, Hong Kong has been recognised as the second largest public housing system in the capitalistic world. [Singapore is the largest public housing system in terms of the percentage of population living in the public housing](Yeh and Yeung, 1975). According to the Hong Kong Long Term Housing Strategy, the government aims at constructing over 260,000 new housing units for low income earners by the end of the twentieth century (Hong Kong Housing Authority 1990; Shen, 1986).

**Table 1.1 Estimation of Future Production of Public Housing**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rental Public Housing (units)</th>
<th>Home Ownership Scheme and PSPS $^1$</th>
<th>Total (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996-1997</td>
<td>16,963</td>
<td>16,878</td>
<td>33,841</td>
</tr>
<tr>
<td>1997-1998</td>
<td>21,416</td>
<td>11,748</td>
<td>33,164</td>
</tr>
<tr>
<td>1998-1999</td>
<td>19,122</td>
<td>31,566</td>
<td>50,688</td>
</tr>
<tr>
<td>1999-2000</td>
<td>23,797</td>
<td>31,566</td>
<td>55,363</td>
</tr>
<tr>
<td>2000-2001</td>
<td>49,581</td>
<td>56,210</td>
<td>105,791</td>
</tr>
</tbody>
</table>

Source: Data from Hong Kong Housing Authority reported in Ming Pao Daily News, January 5, 1997

In order to meet the ambitious housing goals, the Hong Kong government has developed various forms of public housing. These include the oldest Mark I to Mark VI housing estates, the Trident blocks estates and the Harmony blocks estates. The Mark resettlement blocks were built in the 1950s and 1960s. The Trident blocks were built in the 1970s and 1980s. The Harmony blocks are the latest type of public housing, which are currently put up by the Hong Kong government. The Harmony blocks are designed to reduce construction

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$^1$ PSPS- Private Sector Participating Scheme. The Hong Kong Housing Authority invites local developers to submit public housing proposals to the Authority. The developers have the flexibility to design new public housing forms, but the final design must comply with the Hong Kong housing planning standard. Having received the proposals, the Hong Kong Housing Authority will then examine the proposals and award the contracts to the developers.
time, to improve land use efficiency, to provide better housing amenities, and to replace the old Mark resettlement housing estates.

1.3 Redevelopment of the Old Housing Estates

Apart from constructing new public housing buildings on newly formed sites, the Hong Kong government simultaneously carries out massive redevelopment programmes. These old public housing blocks, such as the Mark building blocks, are pulled down. New high-rise housing blocks, mainly the Harmony blocks, are constructed to replace them. The goals of the redevelopment programme are to provide better physically planned units for the residents and to increase the housing stock. Since the old public housing redevelopment began in 1970, some 180 Mark I and II resettlement blocks have been demolished. More than 500,000 residents were relocated to new modern public housing estates.

To many old housing block residents, the old housing blocks possess inherent qualities of convenience, social stability, local attachment and community cohesion. These well-established old housing communities are currently experiencing increasing pressure of neighbourhood disruption, because residents are often relocated in the redevelopment program. Although the residents are provided with better household facilities in new housing units, the disruptions of well-established communities are often neglected or undermined in the resettlement process. In addition, it is still unclear whether the latest type of public housing- the Harmony block, can facilitate neighbourhood formation.
1.4 From Quantity to Quality Housing

Academic studies of low cost housing has gone through a clear sequence of development in Hong Kong. In the 1950s, substandard living spaces, for example, slums, old apartments and pre-war buildings were considered problems. They were interpreted as eye sores, dangers to public health, and causes of social pathology and therefore needed to be eradicated. New public housing units with increasingly modern facilities, were often considered to be better than the outdated units (Satterthwaite, 1991; Wong et al 1978; Willien et el, 1987).

Later, housing was re-interpreted as a process of human activities rather than a static entity. In John Turner’s words, housing was taken as a “verb” rather than a “noun” (Turner 1972, 1976). This approach emphasises the importance of residents’ experiences, capabilities, and traditions related to the built environments. In other words, this approach emphasises the process of building communities. The encouragement of social interaction in the public housing estates is considered equally important to the physical improvement of the living conditions.

1.5 Purpose of The Thesis

The establishment of a good neighbourhood has long been identified as an important element in residential design and planning. A good neighbourhood is often described to enhance life satisfaction and overall sense of well being (Willien, 1987). However, the definitions of neighbourhood vary amongst academics. There are two approaches to define neighbourhood. The first approach interprets neighbourhoods as physical environments that can be transformed into good liveable places through physical planning. Neighbourhood, in this
approach, is conceived as a geographic unit. A physically bounded closed system in which essential physical elements are built to support the social interactions of the dwellers. For example, Clarence Perry, a city planner in the 1950s, took this spatial-physical approach to define the neighbourhood unit in communities. In this approach, physical planning is the crucial factor in building communities in neighbourhood areas (Eisner and Gallion, 1993; Baer, 1984; Lang, 1974).

The second approach, which is taken by many sociologists, emphasises neighbourhood as people’s perceptions of the residential areas. In other words, neighbourhood is conceptualised as a socio-spatial schema and it implies a social concept (Lee 1982). Residents interpret neighbourhood generally as social milieus rather than physical milieus. It suggests that physical planning is only important for initial human contacts. The development and maintenance of the neighbourhood depends on the social factors such as common social background, values and interests of the residents (Banerjee, 1984).

To define the term “neighbourhood formation” in this thesis, it is helpful to understand why people need neighbours. A neighbourhood can only exist when there is more than one person living in the same area. A good neighbourhood starts with the establishment of the relationships between individuals. Therefore, “neighbourhood” can be conceived as the relationship networks of individuals in the same residential area (Wellman et al, 1993; Rivlin, 1987). Using a network metaphor, a good neighbourhood is then interpreted as the network relationship that can provide social supports such as emotional aid, companionship, friendship, personal help to the individual resident in the same area. A good neighbourhood is therefore a place where the dwellers can find these social supports.
The purpose of this thesis is to investigate the impact of physical planning on the neighbourhood formation in public housing in Hong Kong. A primary concern of this thesis is to understand how physical planning can enhance neighbourly interactions in high-rise, high-density public housing living conditions in Hong Kong. Hong Kong is taken as a case study that represents a compact, industrialised 'world city' with public housing at very high densities. The specific objectives of the thesis are:

- **NEIGHBOURHOOD FORMATION FACTORS**

  Through the study of the various stages of the public housing development, this thesis attempts to identify the factors that are crucial to neighbourhood formation in the Hong Kong public housing estates.

- **SOCIALLY RESPONSIVE HOUSING DESIGN**

  To explore the possibility of socially responsive housing design, particularly in the high-rise high-density living conditions in Hong Kong.

1.6 Thesis Methodology

To assess the impacts of the physical housing design on neighbourhood formation, this thesis adopts a comparative study approach. The comparative study strategy has two major parts. The first part is to identify the physical characteristics of the major types of public housing blocks in Hong Kong. A preliminary research shows that the major types of public housing consist of the Mark resettlement blocks, the Trident blocks and the Harmony blocks. The thesis will then examine the physical characteristics and the development of these public housing blocks in Hong Kong. The second part of the study identifies the neighbourhood
characteristics of these types of housing blocks in Hong Kong. This thesis focuses on the following neighbourhood characteristics:

**Level 1- Active Neighbourhood Support** - direct individual contact is the fundamental way to provide active neighbourhood support. Items such as personal contact with neighbours are critical at this level. Any public housing planning that can enhance personal contacts may be conducive to neighbourhood formation.

**Level 2- Social Attachment, Empowerment and Public Involvement** - social attachment of individual to the residential environment is another way to enhance active neighbourhood. Factors such as availability of local jobs and services, tenure and home ownership, finance and affordability, formal and informal community organisations are important in neighbourhood development at this level.

This thesis then compares and contrasts the neighbourhood characteristics of the major types of public housing blocks to reveal any relationship between the different building forms and the neighbourhood activities. To validate the comparison, this thesis also highlights the different socio-economic backgrounds of the dwellers. Based on the findings of the comparison, this thesis also investigates how the physical planning of public housing can affect the neighbourly interaction in public housing in Hong Kong. The specific data required for this thesis includes both primary and secondary information. The primary information is obtained from government reports, current documentary journals and university theses. Further information was obtained from a two-month's field research in Hong Kong. In the field research, important in-depth qualitative and quantitative data was
obtained during participant observations and in-depth interviews with government officials and university scholars.

1.7. Thesis Organisation

There are five chapters in this thesis. Chapter 1 describes the backgrounds, the thesis problems and the purposes of the research. Chapter 2 describes and discusses the development of the public housing planning from the 1950s to the early 1990s. The chapter also discusses the building forms of the public housing in Hong Kong. Chapter 3 describes, discusses and analyses the development of neighbourhood planning in the public housing in Hong Kong. This chapter also gives an account of the economic, social and political factors that affect the changes of planning approaches during the various stages of housing development. It also identifies the major factors that affect neighbourhood development in the public housing in Hong Kong. Chapter 4 assesses and analyses the impacts of the different planning factors on neighbourhood formation in the public housing. Chapter 5 summarises the findings and makes recommendations on the design of high-rise and high-density public housing in Hong Kong.

Although this thesis uses Hong Kong as a case study, the findings may be applicable to other Asian cities, such as Shenzhen and Guangzhou, which are trying to adopt the high-rise, high-density public housing model as developed in Hong Kong.
Chapter 2

FROM MARK TO HARMONY

2.1 Introduction

In 1993, there were 253 public housing estates housing over 2.86 million people in Hong Kong (Hong Kong Housing Authority, 1993). These included 147 rental housing estates, 77 home ownership housing estates and 29 PSPS\(^1\) housing estates. Since the launch of the extensive public housing programme, the achievement of the Hong Kong’s public housing programme has been substantial, particularly in view of the rapid population growth (about a million per decade). The rapid population growth was caused by the influx of 2 million Chinese immigrants from the Mainland China and the 2%-3.5% natural population growth\(^2\). (The populations of Hong Kong in 1961, 1971, 1981 were 3.1 million, 3.9 million, 4.9 million respectively) (Hong Kong government, 1970, 1971, 1985). In the 1950s and 1960s, the Hong Kong government considered the slums as threats to the development of the society. In a report by the Commissioner for Resettlement (1955), Sir Ronald Holmes (the commissioner) wrote:

"Squatter areas are virtually incapable of normal administration, as they have no roads and cannot therefore be policed by normal methods. They naturally attract drugs traffickers, petty gangsters and other criminal elements. They are ideal for small scale industrialists who wish to evade the provisions of the law governing factories. They have neither drains nor main water supply and cannot conform with even the most primitive health requirements. There can be no control over the layout and design of the structures or over the use to which they are put, for the structures themselves are illegal."

Commissioner for Resettlement Report 1955

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\(^1\) PSPS - Private Sector Participation Scheme.

\(^2\) According to the Hong Kong Annual Reports, the birth rates in 1955, 1960, 1965 and 1970 were 3.5%, 3.5%, 2.8% and 2% respectively.
It was apparent that the early government wanted to clear all the slums to improve the living conditions of the squatter dwellers. In fact, sociologists like Drakakis-Smith and Smart both argued that the main reason for the squatter clearance and resettlement programme was to acquire slum lands for economic development (Drakakis-Smith 1979, Smart, 1992). As stated by the Commissioner of Resettlement in a government report:

“Squatters are not resettled simply because of their need...[for] hygienic and fireproof homes; they are resettled because the community can no longer afford to carry the fire risk, health risk and threat to public order...and because the community needs the land of which they (squatters) are in illegal occupation; and the land is needed quickly.”

Commissioner for Resettlement Report 1955

Given the motivation of the early resettlement programme, it was not surprising that the government took little consideration of the living standard of the early public housing. In addition to proclaiming the urgency of squatter resettlement, the first type of resettlement block, Mark I, was constructed to provide only minimal household facilities such as minimal living space, shared bathroom and toilets. The living conditions were no better than in the original slum areas (Smart, 1992). However, with thirty years of public housing development, the aim of the housing policies in the 1980s and 1990s was no longer confined to the mere production of residential shelters. Instead, the housing policies had expanded to include the provision of health, educational, commercial, recreational and community facilities. Following this expansion, new public housing blocks, such as the Trident blocks and the Harmony blocks, were constructed with better household facilities. According to Sir David Akers Jones\(^3\), there was a shift of housing aim from “mere quantity production” to “quality and design with equal emphasis” (Housing Authority Report 1991). The evolution

\(^3\) Sir David Aker Jones was the Chairman of the Hong Kong Housing Authority in 1991
of public housing designs from the Mark series housing blocks to the Trident housing blocks and the Harmony series housing block also demonstrates the changes in the housing policy.

This chapter describes, discusses and analyses the evolution of the physical public housing types in Hong Kong. Through the study of the evolution of the public housing, this chapter provides the basic context against which the community development of the Harmony block can be evaluated. According to the research monographs by Drakakis-Smith (1979, 1975), the housing research done by Castell, Goh and Kwok (1990) and the annual reports by the Hong Kong Housing Authority (1983-1993), the development of the public housing in Hong Kong can be broadly divided into 3 distinctive periods.

- The early resettlement stage (1954 to 1973)
- The new town stage (1973 to 1984)
- The redevelopment stage (1984 to early 1990s)

### 2.2 The Early Resettlement Stage (1954 to 1973)

#### 2.2.1 Background

Slum fires were common in the 1950s in Hong Kong. In January 1950, 20,000 squatters lost their dwellings in a slum fire in Kowloon City. 15,000 squatters lost their homes in another fire in November 1951. On Christmas Eve of 1953, a disastrous fire broke out in a densely populated squatter area in Shek Kip Mei, Hong Kong, and the fire rendered over 53,000 squatters homeless. Faced with the vast number of fire victims, (particularly from the Shek Kip Mei disaster) the government took action by constructing temporary double
storey buildings for the victims. Permanent resettlement blocks, called the Mark I resettlement block, were built subsequently. This marked the beginning of Hong Kong’s extensive public housing programme (Drakakis-Smith 1973, Mitchell 1972, Hopkin 1971, Will, 1971). In 1954, the Hong Kong government set up the Resettlement Department to manage the resettlement housing blocks. In the early 1960s, 240 resettlement housing blocks in 12 resettlement estates were constructed with minimal household and community facilities. In 1964, the government appointed two committees to review the policy of slum clearance and the provision of low income housing. As a result of the review, the Mark series housing projects were re-designed with improved household facilities.

2.2.2 The Physical Characteristics of the Mark Housing block

- **MARK I & II (1956-1964)**

The architecture and internal planning of the Mark I resettlement block were very simple, partly because of the speed of construction and the limitation of construction cost. The Mark I buildings were H-shaped, 6-storey walk-up concrete buildings with 64 flats on each floor. There were 384 flats in each block. Each flat could be accessed by means of an open perimeter balcony that led to the four staircases at the end of each wing. Privacy was minimal as the public balconies were directly next to the flats (Wong, 1978, 1983; Will, 1978). Figure 2.1 shows the layout and planning of a typical Mark I resettlement block.

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4 According to the monograph by B.F. Will, the first proposal was to build single storey buildings to house the Shek Kip Mei fire victims. However, the drawback was the high ground coverage which required extensive vacant land. The second proposal was to build multi-storey building, but due to the lengthy construction time, the proposal was rejected. The compromised proposal was to build temporary 2-storey blocks of size 51.7m x 8.5m. The residents were later transferred to seven permanent 6-storey concrete Mark resettlement blocks.
Mark I housing units
refer fig. 2.6 for internal layout

access stair

cooking along the single loaded corridor

Figure 2.1 The typical layout of the Mark I resettlement block
source: B. F. Will "Housing Design and Construction Method" in Housing in Hong Kong
Figure 2.2 The typical layout of the Mark II resettlement block
source: B. V. Will "Housing Design and Construction Methods" in Housing In Hong Kong
According to the resettlement housing standard in the 1950s, the space allowance was 2.2\(\text{m}^2\) per person. Based on this standard, each flat which was designed for five persons, had a total gross flat area of 11\(\text{m}^2\). The planned residential density was 3,600 persons per hectare (1,500 persons per acre) (Castell, 1990). However, it was very common to find seven or eight persons living together in the same flat, causing each resettlement block to accommodate up to 3,000 dwellers. Hence the actual residential density could be as high as 4,800-6,000 persons per hectare. The high density and overcrowded living condition were the characteristics of the Mark I blocks.

There was little provision for household facilities in the resettlement blocks. The flats were completely bare on allocation, with unplastered concrete walls and floors. All the washing and toilet facilities were located at the central cross piece on each floor. Cooking was done along the corridors. Consequently, the housewives had to do almost all household work in the central areas.

Following the completion of the Mark I housing in Shek Kip Mei, the government started to examine what reasonable modifications could be made to improve the living conditions. The subsequent re-designed buildings were called the Mark II resettlement blocks that differed only slightly from the Mark I. The changes were minor:

- Connection of the end block staircases to provide more accessibility to the flats.
- Addition of one floor to seven storeys to increase the number of flats in each block.
- Additional open space was provided at the roof top by fencing the roof.

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5 The areas of kitchens, balconies and toilets were excluded from the area calculations in the personal space allowance.
• Provision of more communal bathing stalls
• Conversion of the ground floor residential flats to shops
• Enlargement of some of the end bay residential flats to 28.8m$^2$ for larger families.

Figure 2.2 illustrates the layout of Mark II resettlement block. The Mark I and II resettlement blocks represented the earliest type of public housing in Hong Kong. To achieve land and cost efficiency, the Hong Kong Resettlement Department concluded that permanent six-storey building capable of housing 2,000 dwellers could cost much less than the low rise alternative. In addition, the Hong Kong Resettlement Department also stated:

"Considerable point was added to the argument (for multi-storey development) when it was calculated that a permanent six-storey building capable of housing well over 2,000 persons could be built for the amount which was being spent every fortnight during the spring of 1954, on supplying free food to the victims of the Shek Kip Mei fire."

Resettlement Department Annual Report 1954-55

Despite the non-ideal living conditions, the Mark I and II resettlement blocks provided the residents with relatively fire and typhoon proof and hygienic shelters (Will 1978).

• MARK III & IV (1964-1969)

The development of the Mark III resettlement block presented an entirely different concept in the housing design. The Mark III blocks were rectangular or L-shaped with central double loaded corridors. The central corridor layout provided better all-weather access; but the dark and un-monitored public access created spaces for anti-social activities such as robbery and drug trafficking. Cross ventilation was provided with openable windows installed along the corridors. Noise was not attenuated to any extent. On the contrary, the noise appeared to be increased in the corridor due to the hard concrete floor and wall finishes. The internal
corridor approach provided more privacy to the dwellers, but many dwellers disregarded the advantage by opening up the doors for better cross ventilation. Minimal security and privacy were maintained by using open lattice metal gates at each unit. As a result, the residents often greeted and chatted with each other outside their main doors in the corridors (Will 1978, Yeh and Laquian 1979).

There were 66 flats in each floor in the L-type Mark III housing block. The size of each flat was 11.9m² with space allowance remained at 2.2 m² per person\(^6\) (which was similar to the Mark I & II blocks). The provision of building services was slightly better than the Mark I and II blocks. In the Mark III blocks, there was water supply in each kitchen located inside the flat. Although the Mark III residents still had to rely on communal toilets and baths, there were sufficient cubicles so that each toilet cubicle was shared by two flats.\(^7\) There were also common refuse chutes at the end wings of the building. In addition, a little balcony about 5-6m² was provided in each unit. As suggested by Will (1978), the change of building design indicated the change of housing policy from emergency approach to firm commitment.

In 1965, there were 21,224 self-contained Mark IV public housing flats accommodating 139,000 dwellers in seven newly developed housing estates in Hong Kong (Hong Kong Housing Authority Report 1965). The Mark IV layout was similar to the Mark III except the following changes:

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\(^6\) Kitchen, toilet and balcony areas were excluded in the calculation of the personal space allowance.

\(^7\) The communal toilets were located at the end of the corridor of the building. Each family was given keys to their own toilet cubicle and usually one cubicle was shared by two families.
Figure 2.3 The typical layout of the Mark III resettlement block
source: Yeh and Laquian ed. Housing Asia's Millions
Figure 2.4 The typical layout of the Mark IV resettlement block
source: Yeh and Laquian ed. Housing Asia's Millions
• complete self contained flats with individual kitchens, toilets and baths
• the height was drastically increased from 8 storeys to 16 storeys with lifts
• the planned gross residential density was 4,800 persons per hectare

Each flat was designed to be completely self contained with a small kitchen of about 4m², a toilet room with shower of about 2m² and a general purpose verandah of 5m² to 6m². The space allowance remained at 2.2m² per person, and the flats were designed to accommodate 4 or more persons. The kitchens and toilets were located on the balconies for ventilation purpose. The living rooms were designed to be subdivided with open screens or curtains. Figure 2.6 illustrates the internal flat layouts of the Mark I and Mark IV blocks.

• MARK V & VI (1965-1973)
The Mark V and VI blocks were built in the periods 1965 to 1969 and 1966 to 1973 respectively. These two types of housing blocks were similar to the Mark IV block, except:
• Variable room sizes were planned to accommodate different household sizes
• Increased floor area- In 1969, the floor space allowance in the Mark V block was increased to 2.5m² per person which was slightly higher than the 2.2m² per person in the Mark I and II blocks. In the early 1970s, the floor space allowance was further increased to 3.2m² per person in the Mark VI buildings. With an average household size of 5-6, the typical flat size in the Mark VI block was adjusted to 20.1m².
• Taller public housing- The heights of the Mark V and VI buildings were further increased to 16 - 20 storeys with more community facilities such as markets and

2.2.3 Summary of Development Trend

The Mark series resettlement blocks were the most dominant types of public housing in Hong Kong in the 1950s and 1960s. The buildings were built to resettle the squatters who lost their homes because of the acquisition of crown lands, the demolition of dangerous buildings and natural disasters such as slum fire and typhoons. The housing policy clearly stated that the provision of squatter resettlements was not a government welfare and the dwellers had to pay for their quarters. As stated in the Hong Kong Annual Report 1970,

"(Public housing) Rents are fixed at the lowest possible level to cover the reimbursement of the capital cost to over 40 years, at 3.5 per cent interest, plus all annually recurrent expenditure including the cost of administration and maintenance."

Hong Kong Annual Report, 1970

Hence, the sizes of the flats and the provisions of building services were directly related to the financial situations of the dwellers and the government. A review of the early resettlement housing revealed the following trend:

- **From Mere Shelter to Better Shelter**

The resettlement housing blocks started mainly with the consideration of the economic situations in Hong Kong. Land and cost effectiveness were the prime concern in the public housing designs, which resulted in the construction of low standard housing flats in the 1950s and 1960s. It was only in the later Mark IV, V and VI resettlement blocks that better private household facilities such as self contained toilets, refuse chutes, private kitchens and private balconies were provided.
• From Communal To Privacy

In the Mark I and II resettlement blocks, public housing dwellers needed to share common household facilities. Such household facilities were provided at the cross bridge of the buildings. The concentration of household activities resulted in the facilitation of the informal neighbourhood interactions amongst families. Besides the cross bridges, the open public balconies in the Mark I & II blocks also provided opportunities for informal interactions amongst neighbours, but at the expense of personal privacy.

• Cost Effectiveness And Residential Density

It was apparent that the cost effectiveness of the public housing was the driving force of the residential density in Hong Kong’s early public housing. The personal space allowance, which affected the residential density, was primarily based on the rental affordability of the dwellers. In other words, the 2.2m$^2$ per person standard was calculated as the maximum floor area [therefore the rent] which the dwellers$^8$ could afford (Will, 1978, Wong, 1978).

Taller Mark III to VI blocks were built to reduce the construction cost per flat and to increase the number of flats per building. (6 storeys in the Mark I blocks and 16 storeys in the Mark VI blocks) The gross estate residential density was also increased from 3,600 persons per hectare to 4,800 persons per hectare (1,500 persons per acre to 2,400 persons per acre) in the early Mark resettlement blocks. Table 2.1 summarises the different physical characteristics of the Mark series resettlement housing.

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$^8$ In 1964, the average rent charged was approximately HK$2.2 per square metre of occupied space including internal services such as kitchen, toilet and verandah.
Table 2.1 COMPARISON OF THE MARK SERIES PUBLIC HOUSING

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Type</td>
<td>6-7 storeys H block, 64 units per floor with balcony approach</td>
<td>7-8 storeys H block, 64 units with 4 large end units per floor</td>
<td>8 storeys L shape block with central corridor</td>
<td>8-16 storeys block with central corridor</td>
<td>As Mark IV with slight variety of room size</td>
<td>As Mark V</td>
</tr>
<tr>
<td>Room facilities</td>
<td>communal washroom, kitchen and bath</td>
<td>as Mark I</td>
<td>as Mark I but a toilet shared by two units</td>
<td>with individual toilet and balcony kitchen</td>
<td>as Mark IV</td>
<td>as Mark IV</td>
</tr>
<tr>
<td>Size (m$^2$/unit)</td>
<td>11m$^2$ with 3.6 m$^2$ public balcony</td>
<td>as Mark I</td>
<td>11m$^2$ with 4m$^2$ private balcony</td>
<td>as Mark III</td>
<td>as Mark III but with more variety of flat sizes</td>
<td>20m$^2$</td>
</tr>
<tr>
<td>Personal Space allowance $^9$</td>
<td>2.2m$^2$</td>
<td>2.2m$^2$</td>
<td>2.2 m$^2$</td>
<td>2.2m$^2$</td>
<td>2.5m$^2$</td>
<td>3.2m$^2$</td>
</tr>
<tr>
<td>Average household size</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>varies</td>
<td>4</td>
</tr>
<tr>
<td>Cost (HK$ per unit)$</td>
<td>$3750 (1954) ($56,250 in 1990)</td>
<td>as Mark I</td>
<td>as Mark I</td>
<td>$6470 (1966) ($97,050 in 1990)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Construction material</td>
<td>Reinforced concrete</td>
<td>as Mark I</td>
<td>as Mark I</td>
<td>as Mark I</td>
<td>as Mark I</td>
<td>as Mark I</td>
</tr>
<tr>
<td>Vertical circulation</td>
<td>walk up stair</td>
<td>walk up stair</td>
<td>with 2 lifts</td>
<td>as Mark III</td>
<td>as Mark III</td>
<td>as Mark III</td>
</tr>
</tbody>
</table>

Source: data from Yeh and Laquian (1979), Housing Authority Annual Reports (1968 to 1971)

$^9$ The areas of kitchens, balconies and toilets were excluded in the calculation
$^{10}$ Equivalent figures in 1990 are shown in brackets. CAD$ 1$ approximately equals HK$ 5.7
2.3 The New Town Stage (1973 to 1984)

2.3.1 Background

In 1971, Sir Murray Maclehose was appointed the governor of Hong Kong and he gave public housing a high priority in his policy. As argued by Drakakis (1978), the change of policy was due to the social disturbance in the 1960s. In 1966 and 1967, two riots broke out signalling the general discontent about the political, economic and social conditions of the populace. Although the riots were not directly caused by the poor living conditions in the public housing, the change of the housing policy towards better housing and community building (recommended by the Housing Board in 1968) was certainly part of the social reform to stabilise the populace in the colony (Drakakis, 1978; Cooper, 1970). As admitted by Sir Murray Maclehose in 1972,

"It is my conclusion that the inadequacy and scarcity of the housing and all that this implies, and the harsh situation that results from it, is one of the major and constant sources of friction and unhappiness between the government and population (refer to the riots). It (the poor housing conditions) offends alike our humanity, our civic pride and our political good sense."

the Governor Sir Murray Maclehose
The first speech to the Legislative Council, 1972

Although the public housing programme was started in 1954, it was not until the Maclehose era that the public housing programme was extended to cover all the low-middle income people who lived in overcrowded homes in the private sector. Families comprising three people, or three unrelated elderly people or a married couple, who were residents of Hong Kong within the income limits\(^\text{11}\), could register on the waiting list for rental public housing.

\(^\text{11}\) For a family with four persons, the family monthly income limit was HK$ 400 - HK$ 1,250 in 1971
In 1973, the government carried out a survey and estimated that approximately 1.5 million people were in need of proper affordable housing in Hong Kong.

With the average production of 35,000 flats each year in the early 1970s, the government aimed at providing adequate affordable housing to the entire low income population within ten years (Castell, Goh and Kwok, 1990). To achieve the ambitious ten-year housing programme, the government needed to accelerate the public housing construction rate. However, the land shortage in the inner city and the complication of land acquisitions in the urban areas caused the government to consider developing public housing in the rural areas in the New Territories. As stated by Pun,

"The attempt to solve [the housing problem] has now become a major concern of urban planning in Hong Kong and the need to provide land for public housing has become the principle impetus behind many development programmes... To meet this target, large sites have to be made available quickly for the construction of large, conventional, public housing estates... The main opportunities exist in the new towns and rural towns in the New Territories."

Hong Kong Planning Report

Based on the prototype and design of the British new towns, the first new towns in Hong Kong were built in Tsuen Wan, Kwai Chung and Tsing Yi. These new towns together housed 654,000 people in 1986. The second new towns were planned in Sha Tin and Tsuen Mun to house 800,000 and 550,000 people respectively (Castell, Goh and Kowk 1990). According to the 1993 Housing Authority Annual Report, there were over 1.2 million people living in the new town public housing in that year. Modified from the British new town concepts, the typical layout of the Hong Kong new towns e.g. Sha Tin, consisted of standardised multi-storey concrete public housing blocks set around multi-level town centres.

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12 Mr. K. S. Pun was the Director of the Hong Kong Planning Department in 1982.
with shopping malls, restaurants, parking and transit terminus. The town centres were located within 200 metres from the residential blocks. Learning from the experience in the early resettlement blocks, the housing policy in the 1980s was orientated towards a blend of different types of housing blocks within the same housing estate. The two basic new town public housing blocks in the 1970s and 1980s were:

- **DOUBLE-H POINT BLOCK**
- **TRIDENT BLOCK**

### 2.3.2 The Physical Characteristics of The New Town Housing Blocks

**Double-H Point Blocks**

Although the Double H-Point blocks were first introduced in July 1976, the planning of the Double H-Point blocks actually evolved from the Mark VI resettlement buildings. Following the trend of self-containment in the Mark series public housing, all the flats in the Double H-Point block were designed to be self-contained with slightly larger kitchens, toilets and balconies. Because of the gradual improvement of the financial situation of the public housing dwellers, the personal space allowance was raised to 3.5m$^2$ per person which was slightly larger than the 3.2m$^2$ per person in the Mark VI buildings. [the space allowance was directly related to the rent and affordability of the tenants] Based on a typical family of 4 members, the typical flat was 35.3m$^2$ 13. In addition, acknowledging the needs of bigger families, 2-bedroom flats of size 65.1m$^2$ were also provided. (Hong Kong Annual Report, 1980).

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13 Typical flat size was 35.3m$^2$ which included living area, sleeping area, kitchen, toilet and balcony
Figure 2.5 The Typical Layout of the Double H-Point Block
source: Castells, Goh and Kwok, The Shek Kip Mei Syndrome, Economic Development and Public Housing in Hong Kong
Figure 2.6 The Typical Furniture Layout of the (a) Mark I resettlement block and (b) Mark IV resettlement block

source: Hong Kong Housing Authority Annual Reports 1964 and 1980
The provision of household facilities and sizes of flats of the Double H-Point blocks were better than the old resettlement blocks. In the Double H-Point blocks, each floor had 14 flats which were served by a central semi-open corridor. The opening up of the central corridor provided both light and ventilation to each flat. In addition, the reduction of the length of the central corridors and the installation of six lifts provided a smooth flow of vertical passenger traffic. The waiting time for lifts was also greatly reduced. Although the internal flat layout was similar to the Mark VI housing block, the Double H-Point blocks were much taller with 28 to 32 storeys. However, as commented by Castell (1990), the design principles of the Double H-Point block were governed basically by economic efficiency and standardisation of production. Little consideration was given in relationship to the cultural values or behavioural patterns of the dwellers.

- Trident Housing Blocks

In 1985, the government reports "A Review of Public Housing Allocation Policies" and "The Green Paper of Public Housing Subsidy for Public Housing Tenants" revealed a major shift of housing policy directions in Hong Kong. The first policy direction was to increase the rents of some well off public housing tenants to recover housing costs and subsidies. The Green Paper recommended that tenants, who had resided in public housing for more than 10 years and had improved their financial positions above the subsidy income limit, should pay double rent. Those who could not afford the new housing flats, could choose to live in cheaper and smaller flats in older public housing estates. Although the public housing had never been considered as a government welfare, the low public housing rents were actually a result of subsidies from the government. (for example, the land prices were discounted in the
calculation of the cost recovery). As the government wanted to accelerate the construction of public housing blocks and to improve the quality of flats, higher rents were charged to the tenants to recover the building cost.

The second policy direction was to encourage rental families to purchase their homes through the home ownership scheme. There were two purposes of the policy direction. First, it encouraged well off tenants to vacate their rental flats for those who were in greater need. Second it tried to recover the housing costs from the well-off tenants by selling the flats. The sale of the home ownership flats held during 1984 showed that the demand for home ownership continued to increase. The scheme was also becoming more popular amongst the public housing tenants. Since the implementation of the policy, the government expected that the home ownership public housing would increase from 5% of the total housing stock to 14%, and the rental sector would decline from 42% to 32%. In fact, the long term housing policy targeted to transform all the rental tenants to home owning residents. As a consequence of the revised policy to encourage home ownership, all the new public housing flats were designed to standards sufficient to attract well off public housing dwellers to purchase their own homes- the concept of privatisation and commodification of public housing became apparent at this stage.

Based on the new housing policy, the Trident public housing was designed to standards of flat size, material, layout and facilities comparable to the private sector housing. The Trident public housing could be easily identified with its characteristic Y-shaped planning which maximised the views and avoided overlooking into other flats. The Trident towers were designed to facilitate offsite mechanical pre-fabrication of building parts e.g. wall panels.
The merit of offsite prefabrication is the maintenance of the construction quality of the buildings. To sustain the pace of construction, a "Large Panel Formwork Programme" was introduced which allowed modularised construction elements to be fabricated off site. In a typical Trident tower, there were 8 flats in each of the 3 wings which attached to a central triangular core of 6 elevators. The Trident block was 35 storeys high. Each floor had 24 flats, making up a total of 816 flats in each tower. Due to the increased rental affordability of the tenants, the personal space allowance was raised to 5-7m$^2$ per person which was much higher than the Mark series building. The Trident blocks were designed to provide various sizes of flat ranging from 35.44m$^2$ to 49.31m$^2$. The typical flat size was 41.24m$^2$ and it was equipped with a self contained kitchen, a bath, a balcony, a living room and two bedrooms. The quality and facilities of each flat were greatly improved to standards that were comparable to the average private sector housing at that time. Figure 2.7 illustrates the typical layout of the Trident blocks.

2.3.3 Summary of the Development Trend

The development of the new town public housing and the establishment of the ten year housing programme formed the turning point of the public housing in Hong Kong, because it was for the first time that all the low income people could apply for government rental and home ownership public housing.
Figure 2.7 The typical layout of the Trident block
source: Hong Kong Housing Authority Annual Report 1989
Public housing was no longer only built for the emergency relief of squatter people, but was also developed towards the general improvement of the housing conditions for all low income people in Hong Kong. Following the shift of the focus of the housing policy, the physical characteristics of the public housing changed subsequently.

- **Towards Complete Self-Containment**

  Complete self-containment in housing units was achieved in the Double H-Point blocks and the Trident blocks. Each flat was planned with its own living rooms, bedrooms, kitchens, toilets, individual water meter and electricity supply. Unlike the early Mark resettlement blocks where the estates were developed without comprehensive community planning, the public housing in the new towns were provided with formal community facilities such as town halls, schools and shopping malls to create a sense of community. In fact, one of the original objectives of the new town developments in Britain, which was adopted by the Hong Kong government, was to create self contained communities in newly developed areas. As commented by Lord Reith, the government was to:

  "consider the general questions of the establishment, development, organisation and administration that will arise in the promotion of New Towns in furtherance of a policy of planned decentralisation from congested urban areas; and in accordance therewith to suggest guiding principles on which towns should be established and developed as self contained and balanced community for work and living."

  New Town Committee, Interim Report

- **From Subsidy To Commodity**

  Since the introduction of the home ownership scheme, the new public housing had been designed both for rent and for sale. With the reduction of housing subsidies and the encouragement of tenants to purchase their own flats, the public housing was intended to fulfil the changing housing demands. In the Mark housing blocks, the low quality housing
standards were to reduce government subsidies. On the other hand, in the 1980s, the government tried to improve the housing quality to encourage more privatisation of public housing units; and such privatisation in turn reduced the housing subsidies that the government had to pay for in the housing construction and maintenance. In either way, the overall effects were the reduction of housing subsidies.

2.4 The Redevelopment Stage (1985 to 1990s)

2.4.1 Background

In 1987, the Hong Kong Government had carried out a comprehensive review of the housing policies and formulated the Long Term Housing Strategy. The strategy aimed at creating a more demand-led approach to the provision of housing with the following the objectives.

- to ensure that adequate housing was available at affordable prices or rents
- to promote and satisfy the growing demand for home purchase
- to improve residential living conditions by redeveloping older public housing estates

In 1989, the Housing Authority estimated that by the year 2000, 300,000 new rental flats, and 227,000 new home ownership flats would be required. Assuming that an average housing estate had a density of 600 flats per hectare, 150 hectares of additional land were required for the public housing purposes. While the main thrust of the new development occurred in the new towns in the 1970s and 1980s, the redevelopment of the inner city land was an inevitable way to obtain land in the early 1990s. With the adoption of the Metroplan
Strategic Planning in 1990, the redevelopment of the old housing estates in the inner city, which provided flats for sale and rent, became important in the rejuvenation of the inner city. In the redevelopment process, old public housing estates were demolished and new high-rise public housing estates were built.

2.4.2 The Physical Characteristics of the Harmony block

In the 1980s, the fact that the average families were getting smaller, the living standards were improving and the aspirations of residents were rising, resulted in the need to revise the design parameters of the Trident and Double-H point blocks. With the implementation of the Long Term Housing Strategy, the Housing Authority re-designed new public housing blocks. The Harmony block evolved with the concept of modularisation and dimensional co-ordination. Such planning had the flexibility in providing various sizes and arrangements of flats within the building. With modular approach, the building elements could also be prefabricated off-site and the quality of construction could be assured.

The Harmony blocks were actually deviants of the Trident blocks. There were three types of Harmony blocks- the Harmony I, II and III. The Harmony II and III were triangular in plan, while the Harmony I was cruciform in plan. Though the forms of Harmony block were different, all the Harmony buildings were made up of identical flat modules. The only planning difference was the layout of the central lift core.

14 The Metroplan was prepared by the Hong Kong Planning Department in providing planning strategies on the future development of Hong Kong.
Harmony I flats
refer fig. 2.11 for internal layout
A: single bedroom flat
B: double bedroom flat
C: triple bedroom flat

Figure 2.8 The typical layout of the Harmony I block
source: Hong Kong Housing Authority Annual Report 1989
Harmony II flats
refer fig. 2.11 for internal layout
A: single bedroom flat
B: double bedroom flat
C: triple bedroom flat

Figure 2.9 The typical layout of the Harmony II block
source: Hong Kong Housing Authority Annual Report 1989
Harmony III flats
refer fig. 2.11 for internal layout
A: single bedroom flat
B: double bedroom flat
C: triple bedroom flat

Figure 2.10 The typical layout of the Harmony III block
source: Hong Kong Housing Authority Annual Report 1989
Figure 2.11 The typical furniture layouts of the 9a) Double H-Point block and (b) Harmony block
source: Hong Kong Housing Authority
The heights of the Harmony blocks ranged from 26 to 38 storeys, and there were approximately 642 to 743 flats in each tower. The sizes of the 1-bedroom, 2-bedroom and 3-bedroom flat in the Harmony blocks were $40.69m^2$, $51.05m^2$ and $59.83m^2$ respectively. In terms of living comfort, there were slight increases in the overall flat sizes, particularly with the 2-bedroom flats when compared with the Trident blocks. An additional secondary water closet was also provided in each 3-bedroom flat. Table 2.2 illustrates the planning differences amongst the Harmony I, II and III blocks.

**Table 2.2 CHARACTERISTIC OF THE HARMONY BLOCK I, II AND III**

<table>
<thead>
<tr>
<th>Harmony I</th>
<th>Harmony II</th>
<th>Harmony III</th>
</tr>
</thead>
<tbody>
<tr>
<td>a 39-storey cruciform tower</td>
<td>a 37-storey Trident shaped tower</td>
<td>a maximum of 27-storey Y-shaped tower</td>
</tr>
<tr>
<td>compact shape</td>
<td>6 storey high atrium at the centre of the block</td>
<td>adaptable for height-restricted sites</td>
</tr>
<tr>
<td>identical wings permitting rotational and repetitive use of formwork</td>
<td>a flexible building comprising a service module and a way capable of rotation</td>
<td></td>
</tr>
<tr>
<td>flexible flat-mix</td>
<td>flexible flat-mix</td>
<td></td>
</tr>
<tr>
<td>ancillary facilities at ground floor</td>
<td>ancillary facilities at ground floor</td>
<td>designed to complement Harmony I and II</td>
</tr>
</tbody>
</table>

Source: data from “Living in Harmony Report” by the Hong Kong Housing Authority, 1990

In the Harmony blocks, all the service pipes were concealed in the public corridor floors and all the public walls were finished with ceramic tiles. The Harmony blocks were suitable for both new town sites and inner city redevelopment sites because of the modular and flexibility design. Figure 2.8 to figure 2.10 illustrate the typical layouts of the Harmony block I, II and III.
2.4.3 Summary of the Development Trend

The development of the Harmony block had indicated the government’s attempt to improve the quality of public housing, which was considered insufficient in the old housing estates.

- Construction Speed and Quality

According to the Hong Kong Long Term Housing Strategy, the Housing Authority hoped to produce 378,000 rental units, 264,000 home ownership units and 484,000 PSPS\textsuperscript{15} units in the period 1990 to 2000. To achieve the targets, the Housing Authority had to maintain a production of over 50,000 flats each year. The prefabrication and modularization of the public housing were therefore crucial in maintaining an uninterrupted production. The modular approach was particularly important in the construction process because of the severe shortage of construction labour in the 1980s. As reported by the Housing Authority,

"In developing these designs (the Harmony blocks), the (Housing) Authority was very conscious of the current labour problems being experienced in the construction industry. It also took the opportunity to encourage a greater use of prefabrication and new construction technology."

Housing Authority Annual Report 1989

The extensive prefabrication of the building components off site also ensured high construction quality. This, in turn, would reduce future maintenance costs. In fact, the high maintenance cost was one of the major problems faced by the old public housing.

- Meeting The Various Housing Demands

In recognising the various housing demands by the low income groups, the Housing Authority took the “demand-led” approach which meant that a greater variety of sizes of public housing unit. Unlike the Mark series public housing which provided flats mostly for

\textsuperscript{15} PSPS: Private Sector Participation Scheme. The Hong Kong Housing Authority invited the private contractors to submit turn key tenders to construct public housing for the government. Usually, the lowest bidders got the jobs.
multi-person families, a large number of single room units (50%) were provided in the Harmony blocks for smaller families.

2.5 Conclusion

Since the launch of the public housing programme in 1954 when the big fire occurred in Shek Kip Mei, the public housing designs have undergone a series of changes. The design changed from the earliest Mark series resettlement blocks in the 1950s and 1960s to the Double-H Point blocks and the Trident Towers in the 1970s and 1980s, and to the Harmony blocks in the 1990s. Despite the various types of public housing in Hong Kong, all the building blocks were built as high density, multi-storey, multi-flat concrete towers in order to maximise the land and construction cost efficiencies. Table 2.3 summarises the differences amongst the Mark, the Double-H Point block, the Trident and the Harmony blocks. A study of the development of the public housing blocks revealed the following trends of development in Hong Kong.

- From Quantitative Shelters to Qualitative Flats

As argued by Smart and Drakakis, the original purpose of squatter resettlement in the 1950s was the acquisition of slum lands for economic purposes (Drakanis-Smith, 1979, Smart, 1992). Although the provision of public housing was disregarded as welfare by the government, the government actually provided housing subsidies to keep the rents down. In order to minimise the subsidies, the Mark series public housing were built with minimal standards. As the financial situation of the public housing tenants was improved in the 1970s and 1980s, the government could improve the housing qualities and to provide home
ownership flats. Nevertheless, construction cost and speed remained the dominant factors in the building design.

• **From Subsidy To Commodity**

With the release of the government report "Green Paper of Public Housing Subsidy For Public Housing Tenants," the government started to reduce the housing subsidies by selling the flats to tenants and middle income people. This marked the beginning of the commodification of the public housing.

• **From Communal to Privacy**

According to Castell (1990), the congested living conditions in the early Mark resettlement housing were no better than in the squatter areas because only communal sanitary amenities, cooking facilities and water supply were provided. However, the households could share their experience with their neighbours while doing their daily household works in the communal spaces. Life could be described as communal because mutual help and tolerance amongst households were part of their daily living. With rising living standard in Hong Kong, the residents demanded more private household facilities in the flats. Therefore the Mark IV-VI blocks, the Trident blocks and the Harmony blocks were planned with fully self-contained flats.

A review of the public housing designs indicated that economic and political forces were the two major driving forces in shaping the physical forms of the public housing in Hong Kong. While there was no doubt that more personal spaces and more convenient private amenities were provided to the public housing dwellers in the 1990s, the social aspect of the public housing in Hong Kong was undermined in the planning process.
Table 2.3 COMPARISON OF THE MARK, DOUBLE H-POINT, TRIDENT AND HARMONY BLOCK PUBLIC HOUSING

<table>
<thead>
<tr>
<th>Description</th>
<th>Mark block</th>
<th>Double H Point block</th>
<th>Trident block</th>
<th>Harmony block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storey height</td>
<td>6-16 storeys</td>
<td>28-32 storeys</td>
<td>35 storeys</td>
<td>36-38 storeys</td>
</tr>
<tr>
<td>Layout</td>
<td>H and L-shape.</td>
<td>double H-</td>
<td>Y-shape</td>
<td>Y and</td>
</tr>
<tr>
<td></td>
<td>balcony approach</td>
<td>internal</td>
<td>internal</td>
<td>cruciform</td>
</tr>
<tr>
<td></td>
<td>in Mark I &amp; II</td>
<td>corridor</td>
<td>corridor</td>
<td>shape with</td>
</tr>
<tr>
<td></td>
<td>linear internal</td>
<td></td>
<td></td>
<td>internal</td>
</tr>
<tr>
<td></td>
<td>corridor in Mark III to VI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of flat per floor</td>
<td>64 units per floor</td>
<td>28 units per floor</td>
<td>24 units per floor</td>
<td>18 units per floor</td>
</tr>
<tr>
<td>Room facilities</td>
<td>communal</td>
<td>self contained</td>
<td>self contained</td>
<td>self contained</td>
</tr>
<tr>
<td></td>
<td>toilet, kitchen</td>
<td></td>
<td></td>
<td>secondary</td>
</tr>
<tr>
<td></td>
<td>and bath in Mark I</td>
<td></td>
<td></td>
<td>bathroom</td>
</tr>
<tr>
<td></td>
<td>II &amp; III.</td>
<td></td>
<td></td>
<td>provided in 3-</td>
</tr>
<tr>
<td></td>
<td>Self contained</td>
<td></td>
<td></td>
<td>bedroom unit</td>
</tr>
<tr>
<td></td>
<td>flats in Mark IV to VI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flat size (m²)</td>
<td>11m² in Mark I to IV</td>
<td>35m²</td>
<td>35m² to 39m²</td>
<td>40m² to 59m²</td>
</tr>
<tr>
<td></td>
<td>20m² in Mark VI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Space allowance</td>
<td>2.2m² to 3.2m²</td>
<td>3.5m²</td>
<td>5.3m² to 7.4m²</td>
<td>6m² to 9m²</td>
</tr>
<tr>
<td>(m²/person)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average household size</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4-3</td>
</tr>
<tr>
<td>Rent (HK$/m²)</td>
<td>$10-$12</td>
<td>$15-$22</td>
<td>$15-$22</td>
<td>$28-$32</td>
</tr>
<tr>
<td>Purpose</td>
<td>for rent</td>
<td>for rent</td>
<td>for rent and sale</td>
<td>for rent and sale</td>
</tr>
</tbody>
</table>

Source: data from Hong Kong Housing Authority Annual Reports from 1968 to 1993

¹⁶ personal space allowance: kitchen, balcony and toilet areas were excluded in the calculation
¹⁷ Equivalent prices in 1990 CAD$ 1 approximately equals HK$ 5.7
Chapter 3

THE NEIGHBOURHOOD PLANNING

3.1 Introduction

Since the early twentieth century, city planners have been searching for ideal neighbourhood planning theories. In 1929, Clarence Stein and Clarence A. Perry formulated the neighbourhood unit planning theory. In their theory, an ideal neighbourhood was described as a residential area of size about 65 hectares (160 acres). In the neighbourhood, children could walk less than 0.8 kilometre (half a mile) to schools. Main traffic arteries were confined to the neighbourhood periphery, and internal streets were limited to service access. With little vehicular traffic in the neighbourhood, approximately 10% of the public area in the neighbourhood unit was allocated as recreational space. Community centre was the focus of the neighbourhood. Surrounding the community centre were major shopping facilities, churches and libraries (Eisner and Gallion, 1993; Banerjee, 1984). Figure 3.1 illustrates the neighbourhood unit concept as developed by Clarence A. Perry. Shortly after the publication of Perry's neighbourhood unit concept in "Regional Survey of New York and Its Environs" in 1929, the neighbourhood unit concept was incorporated in the city planning both in the United States and the United Kingdom. An example of neighbourhood unit planning was included the Greater London Plan by Sir Patrick Abercrombie and F. J. Forshaw in 1944.

According to the Abercrombie plan for Greater London, each neighbourhood unit consisted of around 10,000 residents, with a residential density of 75 persons per hectare (30 persons per acre). Each neighbourhood unit was served by looped secondary distributors which were
branched off from primary traffic routes. The core of the neighbourhood unit consisted of a community centre, a school and a shopping centre (Bristow, 1989; Osborn and Whittick, 1977). Besides the attempt to establish an ideal neighbourhood environment in the residential areas, the Greater London Plan was also designed to achieve the following targets:

- reduction of the population within the congested London city
- creation of a green belt to contain the Greater London area
- relocation of the industry to the outer ring of the Greater London area

With the decentralisation of the population (approximately 400,000 residents), eight new towns\(^1\) were developed at the outer ring of the London city. As commented by Sir Patrick Abercrombie,

"Finally, beyond the Green Belt Ring, and extending to the boundaries of the area, is the Outer Country Ring containing distinct communities..... it is intended to allow in this ring a more generous expansion of existing centres and also to provide the sites for new satellites: both expansion of old and new growths will be occasioned by the decentralised population and industry from inner London."

The Greater London Plan

The concept of new towns development\(^2\) in England was new at that time. It attracted a considerable number of overseas professional planners who wished to adapt the British experience to their home countries\(^3\) (Ward, 1993). Amongst these professionals were the high officials and city planners from Hong Kong.

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1 The eight new towns were Basildon, Bracknell, Crawley, Hallow, Hatfield, Hemel Hempstead, Stevenage and Welwyn (Welwyn was constructed as a garden city in 1919).
2 According to the report by the Association to the House of Commons Sub-Committee of the Expenditure Committee, there were 33 new towns in England in 1973.
3 For example, a new-town proposal was made in Malaysia to provide expansion of local industry and housing in Kuala Lumpur in 1953. In 1954, Singapore developed the first new-town programme in Queenstown; and subsequently, 16 new towns were built by 1985.
Hong Kong was a British colony from 1842 to 1997. During this period, the land, housing and planning policies were heavily influenced by the British Government. In the 1950s, the top Hong Kong officials were appointed by the British Government and many of the government planners were educated in England. These professionals not only brought the neighbourhood unit concept to Hong Kong, but they also hired major British planning consultants [many of whom were associated with various British planning schools] to prepare planning proposals for the Hong Kong government. Consequently, the British planning theories had great impacts on the public housing neighbourhood planning in Hong Kong.

This chapter describes, discusses and analyses the evolution of the neighbourhood planning and the neighbourhood characteristics of the Mark resettlement housing (1954-73), the New Town housing (1973-1984) and the Harmony blocks (1984-1990s).

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4 The sovereignty of Hong Kong was reverted back to the Republic of China on July 1, 1997. The British influence on the Hong Kong government is expected to be diminished after the handover.
Figure 3.1 Graphic representation of the neighbourhood unit concept source: Regional Survey of New York and Its Environs
3.2 The Early Resettlement Stage (1954-1974)

3.2.1 The Neighbourhood Characteristics of the Mark Housing Blocks

- MARK I AND MARK II (1954 to 1964)

The typical Mark I and II estates consisted of about twenty 7-storey resettlement blocks housing a total of 44,000 residents. These resettlement blocks were laid out in parallel rows about 15.2 metres apart, giving an average planned estate density of around 4,000 - 6,000 persons per hectare (1,600 - 2,400 persons per acre). Most of the Mark I and II resettlement estates were located at the inner city core where jobs could easily be accessed. Because the Mark I and II resettlement estates were first conceived as emergency measures, the Hong Kong government gave little consideration to the community planning of the estates. However, the lack of community planning did not mean community dissociation in the estates. On the contrary, active informal neighbourly interactions were found in the Mark I and Mark II resettlement blocks. Figure 3.2 illustrates the layout of the Mark I resettlement estate in Shek Kip Mei, Hong Kong.

According to the sociological research by Angela Kan (1978), there were extensive neighbourly contacts, such as casual greetings, chatting, mutual assistance and allowing children to play together in the Mark I and II blocks. She also found that approximately 52% of the Mark I and II blocks residents often greeted their neighbours and 24% of the residents frequently chatted with their neighbours. In addition, most of the neighbours knew each other.
Developed urban areas

(source: Drake's Smith, "High Society")

Figure 3.2 The layout of the Mark I Resettlement block in Shek Kip Mei

(mixed residential and industrial areas)
Figure 3.3 Mark I resettlement estate in Shek Kip Mei, Hong Kong
In case of personal or familial crisis such as sickness, emotional needs, companion and child care, neighbours (rather than relatives and friends) were likely to be approached first. In sociological terms, the dwellers had developed active neighbourhood support networks, which were essential in neighbourhood formation in the resettlement blocks (Wellman, 1993; Kent, 1990). A study of the Mark I and II blocks reveals the following neighbourhood characteristics.

- Active neighbourhood support and mutual help

In the Mark I and II blocks, the residents lived so close to their neighbours that contact occurred naturally. The sharing of household facilities also facilitated the contacts. The resulting recognition led to greetings and verbal exchanges which eventually led to more intensive interactions such as mutual assistance (Will, 1978; Castell, Goh and Kwok, 1990).

In the Mark I and II blocks, housewives had to do most of the household work in the cross bridge of the buildings. The concentration of household work, e.g. washing clothes, provided frequent opportunities for the housewives to contact their neighbours. During the contact, household experiences were often shared. The sharing of experience to solve common household problems, in turn, reinforced their friendship. Frequent neighbourly contact also occurred in the open balconies. Walking along the balcony and looking through the clear windows, the residents could hardly miss anything happening to their neighbours. They even knew what their neighbours ate because the housewives cooked on the balconies. The dwellers could easily hear neighbours’ gossip and quarrels. They could also easily spot any passer-bys particularly when the flat doors were left wide open for ventilation in summer.
The residents knew what happened on the streets because they could easily see the ground floor activities from the balconies above.

- **Homogeneity of Background**

With frequent neighbourly contact, neighbours began to discover each other's backgrounds and interests. The sharing of common concerns and interests, in turn, reinforced the neighbourhood interactions. As suggested by Kan,

“For a casual social relationship to develop into an intensive one, a certain degree of compatibility and homogeneity is necessary. If neighbours are too different in their interests and thoughts, the amount of visiting (between neighbours) may be reduced, and a cooler attitude may be developed.... In case of incompatible groups, reduction of (personal) distance may even increase interpersonal conflicts.”

A Study of the Neighbourly Interaction in Public Housing

The social backgrounds of the residents in the Mark I and II blocks were quite homogenous. First, most of the residents in the Mark I and II blocks came from the same slum origins. Second, they had income less than HK$ 800 per month. Third, most of the families were extended families with 2-3 children. The average household size was 5-6 persons. Fourth, they had little education with low social status. The similarity in financial and social backgrounds meant that they had to face similar problems such as poverty and child care. In order to solve daily problems, they relied on neighbourhood mutual assistance. (Hong Kong Government 1971)

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5 HK$800 in 1970 roughly equals HK$ 3,000 in 1990. US$ 1 approximately equals HK$ 7.8. CAD$ 1 approximately equals HK$ 5.6.
• **Intimate Street-like Shopping Precincts**

As the housing estates grew in number and size, so did the residents’ demands for low cost retail services and merchandise. The demands in turn attracted a large number of illegal street hawkers in the resettlement estates. In fact, the illegal markets expanded so rapidly that they ultimately occupied the inter-block open spaces. With temporary lighting and power, the proliferation of street hawkers resulted in lively street-like shopping precincts which provided intimate social spaces such as shops, food stalls, street performers stalls and tea houses.

Although these hawkers were obviously satisfying the residents’ demands, they were not recognised by the government and were subjected to periodic clearance. Apart from the rubbish and hygiene problems, the periodic clearance was also initiated for economic reason. There were designated estate rental shops in the housing estates. However, with severe competition from the illegal hawkers, it became uneconomical to open new shops in the estates. As reported in the Housing Authority Annual Report,

“In more recent years, it has been the practice to provide new estates and some existing ones, with a number of conveniently located markets... Their (market) success does depend, however, on the exercise of control over hawkers outside the estate boundaries, since, if this is lacking, the competition from itinerant hawkers, whether licensed or not, makes it difficult for the tenants of the estate stalls to make a reasonable profit.... In one or two cases, difficulty has been experienced in letting all available stalls because of outside competition.”

Hong Kong Housing Authority Annual Report, 1967

In order to maintain financial attractiveness of the estate shops, street hawkers were therefore cleared periodically. (Will, 1979).
• Community Group Attachment

As the public housing population continued to grow in size, the need for public community facilities became apparent. However, under the laissez-faire housing policy, the government was reluctant to furnish a broader range of services such as nurseries, community centres and libraries in the Mark I and II estates. The only services provided was the addition of elementary schools on the roof tops of the Mark II blocks. If the residents needed other services, they had to go to district centres which were located away from the housing estates. (Will 1979). In the Mark resettlement blocks, the basic community services such as child care, elderly care, and household work assistance were provided autonomously by informal neighbourhood based organisations. These organisations included the local resident groups and local neighbourhood mutual help committees. Their goals were to maintain community cohesion, provide social services and act as an intermediary between the government and the dwellers. Most of the assistance was self-help in nature. With the direct involvement of the families and the neighbourhood groups, the Mark I and II blocks residents developed strong senses of social attachment to the local groups (Kan, 1978, 1981).

• MARK III TO MARK VI (1964 TO 1975)

In 1960, the neighbourhood unit concept was incorporated in the planning of the Mark III resettlement estates. According to the Hong Kong Housing Authority Annual Report 1964,

“(Public housing) Estates are planned as far as possible as neighbourhood units with their own shopping centres. In addition, consideration is given to the planning and location and in some cases, the design and building of schools, clinics,

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6 There were local mutual-help committees in each resettlement block and they are named according to the block number.
7 The first community centre was built in Wong Tai Sin Resettlement Estate in 1960. The funds for the construction of the community centre came from overseas grants and donations.
kindergartens, party rooms, kerosene stores and other accommodation ancillaries to the estate.”

Hong Kong Housing Authority Report 1964

The neighbourhood planning of the Mark III, IV, V and VI resettlement estates are rather similar. The housing estates layout were in courtyard form with 25% to 27% site coverage. The planned residential density was about 5,000 persons per hectare. Similar to the neighbourhood unit concept, community halls were the focus in the Mark III-VI estates. Surrounding the community halls were shops and markets which were covered by pedestrian decks. The decks not only provided pedestrian thoroughfare within the community core, but they also provided pedestrian connections to the nearby resettlement blocks without crossing the vehicular traffic. Schools were built in separate 6-storey concrete buildings which were located within the neighbourhood units. Although there were more planned open public spaces in the Mark III to VI estates, the provision remained insufficiently low at 0.8 hectares per 100,000 persons (2 acres per 100,000 persons). Most of the open spaces were designed as hard playgrounds for the youth and little greenery was planned in the estates. Figure 3.4 illustrates the layout of the Mark IV resettlement estate in Shek Kip Mei, Hong Kong. A study of the Mark III, IV, V and VI estates reveals the following neighbourhood characteristics.

- Casual Neighbourhood Support

As the Mark III, IV, V and VI resettlement blocks were planned with private water supply, toilet rooms and kitchens, the housewives could do all the household work in the flats. Although the private household facilities provided comfort and convenience, there were few opportunities for neighbourly contact. This observation was supported by Kan’s survey,
which showed that the close neighbourly interactions in the Mark I, II and III blocks were 1.3 times more active than the Mark III, IV, V and VI blocks. (22.6% in the Mark I-III estates, 17.8% in the Mark IV-VI estates) (Kan, 1978)

Table 3.1 COMPARISON OF NEIGHBOURLY ACTIVITIES BETWEEN MARK I-III AND MARK IV-VI RESETTLEMENT BLOCKS

<table>
<thead>
<tr>
<th>Neighbourly Interaction</th>
<th>Mark I, II and III resettlement blocks</th>
<th>Mark IV, V and VI resettlement blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>actively interact</td>
<td>86.7%</td>
<td>81.2%</td>
</tr>
<tr>
<td>often</td>
<td>22.6%</td>
<td>17.8%</td>
</tr>
<tr>
<td>sometimes</td>
<td>64.1%</td>
<td>63.4%</td>
</tr>
<tr>
<td>rarely interact</td>
<td>13.3%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

Source: Angela Kan in “Housing in Hong Kong”

However, causal neighbourly interaction was still quite active in the Mark IV, V, and VI blocks. Most of the neighbourly activities occurred in the corridors where residents dropped by and chatted with their neighbours. In summer time, the hot weather caused the residents to open their doors for cross ventilation. Minimum privacy and security were maintained by the open-lattice folding metal gates at the flat’s entrance. With the main doors kept open, the residents could easily see what their neighbours were doing through the open lattice metal gates. They could also hear the noises of their neighbour’s activities. With the open-lattice gates kept open, it was convenient for the residents to chat or play mah-jong⁹ with their neighbours in the flats while still keeping an eye on their children playing in the corridors. Without the neighbourhood watch, the residents would feel unsafe in the insufficiently lit internal corridors. However, the intense noise of the living activities of neighbours could cause discomfort to the other residents. Quarrels and disputes were not uncommon amongst

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⁹ Neighbourly interactions included friendly greetings, casual chatting, interaction amongst children, home visiting, asking for help, borrowing and lending, personal talk on familial matters, going for entertainment together.

⁹ A common game played by the Hong Kong people. Heavy noise is generated during the game.
different social groups of residents such as the Chiu Chow groups, Canton groups and Sze Yap groups\textsuperscript{10} in the Mark III, IV, V and VI blocks.

- **Formalisation of shopping precincts**

In the 1950s, the ad hoc fashion of hawker clearance was found to be both costly and ineffective, because the illegal hawkers kept coming back to the resettlement estates after each eradication. In 1958, the government started to realise the need to recognise the street hawkers. Hawker bazaars and markets were constructed to accommodate some of the hawkers who illegally occupied the estate's open spaces. The revised attitude towards licensing the urban hawkers was undoubtedly beneficial to the government, because the government need not spend more money and time to clear hawkers. In addition, the government could obtain profits from hawker licences and rental fees (unlicensed hawkers were still eradicated). With the relocation of the street hawkers to the bazaars and markets, many of the open spaces previously occupied by the hawkers were converted to easy maintenance open spaces such as basketball courts. Unlike the Chinese traditional interpretation of street-markets as integrated places for business, socialisation and entertainment, the formal estate markets and bazaars were designed to serve business purposes only. The monotonous separation of stalls, the isolation of different trades and the poorly ventilated in-door environments made the estate markets and bazaars unpleasant places for socialisation.

\textsuperscript{10} Residents who shared same clan origins had more intimate relationship and they gathered as small social groups of same clan origins.
Figure 3.4 Site layout of the Mark IV Resettlement Block in Shek Kip Mei, Hong Kong
source: Drakakis Smith "High Society"
Figure 3.6 Mark III resettlement estate in Ho Man Tin, Hong Kong
• Public Community Attachment

Unlike the Mark I and II blocks where social services were provided by informal neighbourhood groups, there were more formal voluntary organisations such as the Kaifong Welfare Associations\(^{11}\) in the Mark III-VI blocks. These formal organisations set up and administered kindergartens, child care centres, elderly centres and youth centres on the ground floor of the resettlement blocks. The easily accessible social services provided direct familial assistance to the households. In addition, these centres also provided gathering places for the elderly and the youth. Apart from the formal community and youth centres, the open playgrounds were common gathering places for the youth to escape from the noisy and crowded housing flats in the resettlement blocks. However, as gangs of youth tended to territorise and monopolise the open spaces, the open playgrounds gradually became meeting places for illegal triad societies (Cameron, 1978).

2.3.2 Summary of the Development Trend

By 1969, there were over 1,240 Mark resettlement blocks housing approximately 500,000 people in Hong Kong (Hong Kong Government, 1970). Despite the large number of residents, community facilities were scarce in these estates. The lack of community facilities was a consequence of the early emergency-relief approach of the housing policy. In addition, in order to keep the construction cost low, there was little incentive to provide more communal facilities in the estates. As the economic situation of residents continued to improve in the 1970s, the need for community facilities was more apparent. As commented by the District Officer in 1970,

\(^{11}\) Kaifong literally means street and lane.
"The basic community facilities which decided the quality of life in any community (of the resettlement blocks), have generally not been provided at even a minimal rate and this situation could result in serious social upheavals in a young community which is becoming better educated and better paid month by month."

Report on the Provision of Community Requirement in Kowloon Planning Area

- **Active informal neighbourhood support**

Although the residents had to tolerate the lack of household facilities in the early resettlement blocks, the neighbours often helped each other autonomously. However, frequent neighbourhood contact alone was no guarantee of the formation of active neighbourhood support. On the contrary, the high density overcrowded living condition and the lack of personal privacy could occasionally accentuate the disharmony and conflicts amongst residents.

- **From unplanned to planned neighbourhood unit**

Because of the emergency relief approach of the early housing policy, there was little comprehensive neighbourhood planning in the Mark I and II estates. On the other hand, the Mark III, IV, V and VI estates were planned according to the neighbourhood unit concept. However, without recognising the fact that the neighbourhood unit concept was based on the western behavioural patterns, the adoption of neighbourhood unit concept had gradually imposed the western living patterns on the residents in Hong Kong. Community halls, for example, gradually replaced open markets as the public gathering places despite the fact that open markets were traditionally the gathering places for Chinese.

- **From integration to separation**

In the Mark I and II blocks, the ground floor spaces were intimate places where the residents could chat with their neighbours comfortably. First, hawkers and shops were mixed on the
streets to provide shopping, entertainment and socialisation opportunities. Second, social services were provided on the ground floor of the resettlement blocks to provide gathering places for the elderly and the youth. On the other hand, the neighbourhood unit planning separated the social activities in different premises. These included concentrating shopping activities in the interior markets and centring social gathering activities in the community halls. However, whether the separation was desirable in neighbourhood formation was doubtful particularly in the view of Chinese culture which traditionally integrated social, commercial and residential functions within the same places.

- **The housing segregation**

Although the homogeneous social background in the Mark resettlement estates encouraged the development of active neighbourhood supports, it had potential social problems. The first problem was the tendency of housing segregation. The concentration of low income people caused wealthier people to move away from the estates. The consequence was the concentration of low income groups in the Mark resettlement estates which often created a notorious image of potential social problems such as triad gangs and crime. The notorious image led to the second problem which was the reduction in the sense of pride and the sense of belonging (Cameron, 1978). With the low standard of living environments in the Mark resettlement blocks, few people could be proud of their living places. The consequence was the eagerness to move to places with better amenities and facilities despite longer distances from jobs and disruption of their social networking with their friends and neighbours. This analysis was supported by Leung's survey (1986) whereby 80% of the Mark resettlement residents were willing to move to the better facilitated new town public housing.

Table 3.2 COMPARISON OF THE MARK SERIES PUBLIC HOUSING

<table>
<thead>
<tr>
<th>Table 3.2 COMPARISON OF THE MARK SERIES PUBLIC HOUSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Planning focus</td>
</tr>
<tr>
<td>Number of blocks in each estate</td>
</tr>
<tr>
<td>Estate location (relate to city core)</td>
</tr>
<tr>
<td>Gross density (persons per hectare)</td>
</tr>
<tr>
<td>Planned open space (hectare per 100,000 persons)</td>
</tr>
<tr>
<td>Neighbourhood contacts</td>
</tr>
<tr>
<td>Shopping services</td>
</tr>
<tr>
<td>School facilities</td>
</tr>
<tr>
<td>Recreational spaces</td>
</tr>
<tr>
<td>Community facilities</td>
</tr>
<tr>
<td>Community organisations</td>
</tr>
<tr>
<td>Circulation</td>
</tr>
</tbody>
</table>

Source: data from Yeh and Laquian (1979), Housing Authority Annual Reports (1968 to 1971), Kan (1978), Will (1978), Smart (1992), Drakakis (1979), Riches (1973)
3.3 The New Town Stage (1973 to 1984)

3.3.1 Background

The development of new towns in Hong Kong was first considered in 1935 when the Hong Kong Housing Commissioner reported on the slum clearance,

"The clearance of slum involves the settlement of the disposed surplus (of the squatters) elsewhere. Sites for new settlements must be found and planned. There are several possible sites in the New Territories such as Shatin, Tsuen Wan, Un Long, Taipo and Fanling, but before development can be commenced, the questions of water supply, communications, flood protection, drainage and sewerage disposal and in some cases reclamation must be given serious consideration."

Hong Kong Housing Commissioner Report 1935

Nevertheless, the government only started seriously investigating the possibility of new town development in the late 1960s. Apart from the need to provide lands for public housing (Pun, 1983, 1984), the motivation to build new towns was also heavily based on economic consideration (Bristow, 1989).

The rapid growth of manufacturing industry in the 1960s demanded a vast amount of industrial land in the city core in Hong Kong. This rapid expansion of the territory's manufacturing industry required the government to supply more urban land to the industrial sector. The land supply boosted the colony's economy, displaced the residential lands to the New Territories and increased the urban land sale revenue to the government. According to the 1970 Hong Kong Annual Report, the government received over HK$ 100 million revenue from land sales in 1969. As the manufacturing industry continued to grow, the production of urban industrial lands continued to be a major issue that affected the housing policy in the 1970s and 1980s.
Soon after the new town strategy was adopted by the government, the Hong Kong New Territories Development Department was established in 1973 to plan, develop and supervise the new town programmes. Tsuen Wan, which was the fastest growing outlying urban area at that time, was chosen as the first experimental new town in Hong Kong (Chan, 1977). According to the New Territories Development Department, the goals of the new town programme were,

"(The new towns are) to provide more than just housing. They (new towns) will be places where people can work and play, grow and learn. And with them will come new industries to provide new and better jobs. Planners are providing for a full range of community facilities. The new towns will be fully self-contained, simultaneously providing their residents with employment and meeting their basic needs."

Hong Kong’s New Town - Shatin
New Territories Development Department 1976

In short, the goals of the new town programme\textsuperscript{12} were to create self-contained and balanced communities for work and living in the rural New Territories. Over the past twenty years, the new town programme had expanded continuously to cope with the increase in population. In 1996, there were 9 new towns\textsuperscript{13}, and the designated population was 3.6 million in Hong Kong (Hong Kong government, 1996). Similar to the British new town planning principles, the new towns in Hong Kong were broadly made up of 3 major parts: the town centre, the residential areas and the industrial areas.

\textsuperscript{12} New towns are planned as independent and self contained communities, while satellite towns are planned communities which are subsidiary to the mother city.

\textsuperscript{13} The nine new towns are:

the first generation (1970s): Tsuen Wan, Tuen Mun and Shatin
the second generation (1980s): Junk Bay, Yuen Long, Tin Shui Wai, Fanling and Ma On Shan
the third generation (1990s): Tung Chung (under construction).
• The Town Centre

The heart of each new town was planned with a multi-storey town centre complex which consisted of 4 components: a civic centre, a cultural centre, a shopping mall and a transportation depot. The civic centre consisted of high-rise buildings which accommodated all the town related government offices such as the District Board office, the regional planning office, the regional police station and the town administration offices. The cultural centre was planned with a town hall where community meeting as well as personal occasions such as wedding parties could take place. The town hall could also be used to accommodate full size orchestras, Chinese opera groups and theatre presentations. Schools could also use the hall on their respective speech days. The shopping mall, sometimes designed as an atrium plaza, was to provide interior shopping and entertaining premises such as Chinese restaurants, food plazas, supermarkets and cinemas. Occasionally, the malls also attracted shoppers from outside the town. A central bus station was built around or underneath the shopping mall. There were additional railway stations near the town centres in Shatin, Fanling and Tai Po new towns. The whole town centre was connected with extensive pedestrian bridges at upper floor levels. The bridges were also extended to the residential areas where most of the vehicular access was limited to the perimeter of the housing estates (Chan, 1977; New Territories Development Department, 1979a,b, 1996; Bristow, 1989; Hills and Yeh, 1983).
Figure 3.7 Land use zoning in Shatin new town, Hong Kong
source: Hong Kong Housing Authority Annual Report
Figure 3.8 Shatin new town town centre layout
source: Territory Development Department, Hong Kong Government
• High Density Residential Areas

Surrounding the town centre were lands zoned for high density public housing and private housing. In the first generation new towns such as Tsuen Wan, Shatin and Tuen Mun, the public housing (including the rental and home ownership housing estates) accounted for approximately 60% - 74% (688,200 - 396,000 residents) of the total town population. The proportion of public housing population dropped to 25% - 50% (24,000 - 150,000 residents) in the second generation new towns such as Tai Po, Fanling, Yuen Long and Junk Bay. The rest 36% - 40% and 50% - 75% of the population respectively in the first and second generation new towns, resided in private new town housing developments. Most of the private housing dwellers lived in high-density high-rise private apartments, while a small portion of them lived in village houses. District level facilities such as hospitals and district parks were located closely to the residential zones.

At the estate neighbourhood level, most of the public housing residents lived in the 32-35 storey Double-H Point blocks and the Trident blocks. The average planned estate density was approximately 1,800 persons per hectare. There were about 10 residential towers in each housing estate which housed over 30,000 people. Balanced and self-contained communities were the main themes of the neighbourhood design. According to the New Territories Development Department, the balanced communities were created by diversifying the social backgrounds of the residents. This was achieved by mixing rental and home ownership housing blocks at a ratio of approximately 3:1 and 3:2 in the first and second generation new town housing estates respectively. As suggested by the New Town Development Department,
"Several varieties of residential communities are planned; varying in type, size, location and population density in order to encourage maximum social diversity throughout the communities"

"New Town - Shatin"
New Territories Development Department 1977

To achieve the objective of self-containment in the communities, each housing estate was planned as a neighbourhood unit. A commercial complex and a local bus station were located at the central part of the neighbourhood. The commercial complex, which was 2-3 storeys, accommodated shopping arcades, markets, food stalls and restaurants. With hawking strictly prohibited in the new town housing estate, the commercial complexes were the only source to provide daily services to the households. Kindergartens, social service offices, clinics and elderly centres were also located near the commercial centres. Primary and secondary schools were built in separate 6-storey concrete buildings with individual site areas of 3,900m² and 5,800m² respectively. Most of them were located within walking distance from the residential towers. In addition, more open spaces were planned in the new town residential areas. According to the Hong Kong Planning Standards and Guidelines 1987, the provision of local open spaces¹⁴ in the new towns was 10 hectares per 100,000 persons¹⁵ which was 4 hectares more than the 6 hectares per 100,000 persons standard in the urban areas. Most of the local open space in the new town housing estates were designed as landscaped gardens for the elderly and young children. Hard landscaped open spaces, such as mini-soccer and basketball playgrounds for the youth, were planned at the outer fringes of

¹⁴ The open spaces include amenity areas, small road side area, round about and unbuilt areas with gradients less than 1:3. Areas with gradients 1:3 to 1:5, only 30% of the areas will be counted as open spaces. Only 60% of the areas will be counted if the gradients are less than 1:5.
¹⁵ The open space planning standard in the new towns is 20 hectares per 100,000 persons which includes 10 hectares of district open space, 10 hectares of local open space. The open space planning standard in the urban area is 15 hectares per 100,000 persons which includes district 9 hectares of open space, 6 hectares of local open space.
the housing estates. In addition, district open spaces for hiking, picnic and Taichi\textsuperscript{16} were planned in the green belt zone which was located at the perimeter of the new towns.

- **Light Industrial Areas**

As well as providing housing for the residents, the new towns were planned to provide local employment opportunities in proportion to the projected population. Light industrial areas of sizes 20 - 50 hectares were zoned at the outer fringe of the new towns with the objective to provide sufficient jobs opportunities that one in five residents could work in the local industrial premises. In the 1970s, the new town industrial premises were designed as concrete multi-storey "flatted factory" buildings in response to the high proportion (93\%) of small establishments (less than 10 employees) in the manufacturing industry like apparel and watch manufacturing. It was not until 1981 that large land-intensive industrial lands, such as for metal work production and material packaging, were zoned in the second generation new towns to provide more job opportunities. Together with the retail, commercial, professional and administrative services, the government hoped that job-containment could be achieved in the new towns estates (Chan, 1977; New Territories Development Department, 1977a,b; Bristow, 1989).

\textsuperscript{16}Taichi is a common Chinese morning exercise.
Figure 3.9 Estate layout in Long Ping Estate, Yuen Long New Town, Hong Kong
source: Hong Kong Housing Authority Annual Report
Figure 3.10 Trident block in Wan Chai Estate, Hong Kong
3.2.3 The Neighbourhood Characteristics of the New Town Housing blocks

With the intensive new town development in the 1970s and 1980s, there were over 1.7 million people living in the new towns in 1985. The population increased rapidly to 2.6 million in 1996 (Hong Kong Annual Report 1985, 1996). The new town living experiences were distinctive to the residents in Hong Kong and a study of the new town neighbourhood patterns reveals the following characteristics.

- Inactive Informal Neighbourhood Support

With the comprehensive planning by the government, the new towns in Hong Kong were supposed to be socially well shaped communities. However, studies (Han, 1980; Leung, 1986) showed that despite the improved comfort, privacy and living standard, the neighbourliness was not satisfactorily addressed in the neighbourhood planning. As reported in a survey by Han (1980),

"The findings on Tuen Mun (new town) show that Tuen Mun has provided a better housing and living environment to the migrant households relative to their former living conditions... However, the findings also show that there is a high degree of dissatisfaction with several aspects of Tuen Mun. The two most consistent sources of dissatisfaction are transportation (to social links and the main urban area works) and medical services."

D.W.T. Han
Hong Kong: The Dilemmas of Growth 1980

The finding was supported by another study by Leung (1986) who concluded that,

"There is a high degree of satisfaction amongst the residents of both Tsuen Wan and Tuen Mun... regarding various aspects of life in the new towns with two notable exceptions. Getting to work and social interaction have generally lower grading."

W.T. Leung
A Geography of Hong Kong 1986

According to Leung (1986), there was a strong sense of social isolation amongst the residents in the new town public housing estates. The sense of isolation arose because of the
lack of social interaction with their neighbours, and the lack of linkage with their friends and relatives who mostly lived in the urban areas. Neighbours did not interact very much because there were little contact opportunities. First, the housewives could do all the household work inside the flats. Second, without much communal spaces inside the building blocks, few opportunities were provided for the neighbours to contact other residents. Consequently, the residents knew very little about their neighbours. Most residents did not know what was going on at the street or plaza levels, because they lived 10 to 30 storeys above ground. They could not hear any noise from the nearby neighbourhood activities when the windows and doors were shut for air conditioning. Without much neighbourhood activity in the public corridors, a sense of insecurity was induced which further inhibited the neighbourhood contacts. The lack of informal neighbourhood network caused the new town residents to look for neighbourhood support from formal community organisations rather than their neighbours.

- **The Dependence of Formal Community Organisations**

In the 1970s, in order to encourage more community services in the new towns, the Hong Kong Housing Authority provided concessionary rental premises to voluntary community organisations. A total area of 1,400 m² to 1,650 m² was reserved for community centres in each public housing estate (Housing Authority, 1996). In addition, youth, children and elderly centres with gross floor areas of 165 m² to 232 m² were planned at a standard of one establishment per 20,000 persons (Hong Kong Planning Guidelines 1986). With the rapid expansion of formal community services, the role of community building was gradually taken up by the voluntary organisations which provided counselling, training and
recreational services. In addition, jointly organised with the government, the voluntary organisations held occasional functions such as carnival days and better home exhibitions at the plazas of the housing estates to promote the sense of belonging and to enhance good relationships amongst local residents. The strong dependence of formal community organisations to provide community attachment became a characteristic of the new town housing estates (Hong Kong Housing Authority, 1986; Hayes, 1993).

- **Heterogeneity of Backgrounds**

Even with more neighbourhood contacts, neighbourhood friendship was difficult to grow in the new town housing estates because of the diverse family background of the residents. The heterogeneous background was a consequence of the housing policy to mix low and middle income families of various sizes, structures and origins in the same estates (Housing Authority, 1977). As the residents had different socio-economic situations and family structures, their neighbourhood needs were quite different. Consequently, they shared little common concerns and interests in their living environments. Although the balancing of heterogeneous residents within the housing estates avoided the housing segregation tendency which occurred in the Mark resettlement blocks, the balancing did not encourage neighbourly contacts. As pointed out by Chan (1977),

"The 'balanced community' even if achieved, may only mean 'balance' in a demographic sense, while socially individuals belonging to the same socio-economic stratum would interact exclusively with each other, and inter-strata relationship[s] would be minimised or even avoided."

Y.K. Chan
The Development of New Towns in Hong Kong 1977
• Localised Neighbourhood Network

Though neighbourhood interactions were generally weak amongst the new town households, some elderly could enjoy better social life in the new town housing estates. Since 1977, the elderly were given priority in the allocation of shared accommodation in the housing estates under the Elderly Priority Scheme and the Sheltered Housing For the Able Bodied Elderly Scheme. According to the schemes, new elderly shelters were planned in every large housing estates (with 3,000 or more flats) to provide accommodations for about 150 elderly. These elderly shelters were located on the first and second floors of the Trident blocks (Hong Kong Housing Authority Reports 1986 and 1987).

The elderly flats were fitted with lighting, electricity, gas, toilets and emergency alarms. Although each flat was shared by 3 to 4 elderly, each person was assigned a private bedroom\(^{17}\) of size about 5.27m\(^2\). The elderly could chat, play chess and watch television in the two common rooms on each floor. They knew each other and mutual assistance developed amongst the elderly. The schemes met with favourable response from both the elderly and the public, because the elderly flats were proven to be social places for the self-reliant and independent elderly. As commented by the Hong Kong Housing Authority

"Findings from the 'Survey on Elderly Persons and Single Persons Rehoused in Shared Accommodations' have indicated that the large majority (80%) are content and well matched with their flat mates...The elderly and the general public have responded favourably to the scheme. A further 14 projects of this sort will be built in the next five years."

Hong Kong Housing Authority Annual Report, 1987

\(^{17}\) Shared 2-person bedrooms were also available to the elderly couples in the elderly shelters.
• Self-Contained Community Without Job

Although the new towns were initially planned to provide sufficient local jobs for the local residents, the goal of job creation was not fully achieved. It was estimated that only 50% of the residents could find local job in the new towns (Hill and Yeh, 1986). The low percentage indicated that many manufacturing factories, though relocated in the new towns, retained their own work force from the main urban areas. The situation was even worse in the 1980s and 1990s, when many manufacturing factories were relocated to South China cities because of the economic reform in China.

In the 1990s, the shrinkage of the manufacturing industries in Hong Kong resulted in high vacancy rates (30%-37%) in the new town industrial buildings and few job opportunities were created in the new towns. On the other hand, the boom of the commercial and service industries in the urban areas demanded a vast number of white collar workers. Inevitably, a high proportion of the workers had to seek employment outside the new towns, and the frequent commuting caused the already congested transportation network to deteriorate further. Indeed, as analysed by Sui (1995), the new towns in Hong Kong would continue to develop into dormitory-like towns in which the low income people had little time to develop their social attachment to the neighbourhood particularly with the added frequent commuting time.

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18 It might take more than 1.5 hours to travel from the second generation new towns to the urban areas.
3.2.4 Summary of Development Trend

The experiences of the new town living in Hong Kong were new to most dwellers in the 1970s and 1980s. To most of the new town dwellers, better physical living environments was the major consideration in their migration decisions; even though their social ties with original neighbourhood was disrupted.

- From Inactive Neighbourhood Support to Formal Community Services

With the expansion of the community facilities, such as kindergartens, child and elderly care centres, the residents could readily obtain social services from the formal organisations in the new town housing estates. The lack of the immediate need for neighbourly assistance and the lack of communal spaces within the residential towers resulted in little neighbourly contacts. Little neighbourly contact coupled with the heterogeneity of backgrounds further hindered the growth of neighbourly friendship. Together with the physical distance away from their friends and relatives who mostly lived in the main urban areas, a strong sense of isolation developed amongst the residents in the new towns.

- The Gentrification of Neighbourhood

Originally the planning of the “balanced communities” was to avoid the concentration of low income social class in the new towns. However, because of cheaper housing, better amenities, proximity to urban area in the first generation new towns, they were gradually proliferated with middle class families. In addition, the housing policy to introduce more home ownership and private sector housing in the new towns also caused an influx of middle income people, which resulted in the gradual gentrification of the communities. The gentrification caused a gradual increase of living costs and a displacement of low income residents to the second generation new towns [implied further away from job]. In fact, in
1993, the first generation new towns such as Shatin were so popular that rental public housing applicants needed to wait for 7 years before housing units were available. It only took 4 years if the applicants chose to live in the second generation new towns such as Tai Po in Hong Kong (Hong Kong Housing Authority, 1993).

- **Failure of Job-Containment**

The development of the new towns in Hong Kong was characterised by the predominantly 'housing-led' strategy which meant that the new town housing estates were developed prior to the provision of jobs, transportation and social facilities (Wang and Yeh, 1988; Yeh and Fong, 1984). Despite the need for self-containment of jobs, the planning strategy failed to attract sufficient local employment in the new towns. This was due to the long established 'positive non-intervention' economic policy that restrained the government from actively relocating any of the manufacturing industries to the new towns. The failure to attract sufficient local employment resulted in a substantial volume of commuting to the city core, which in turn put great pressure on the transportation systems and rendered the new towns less affordable for the low income people. It also greatly reduced the sense of social attachment and the opportunities for neighbourhood contact.

In 1996, over 42% (2.6 millions) of the Hong Kong population lived in the new towns in the New Territories. The new town development was successful in terms of housing provision and population relocation. However, the achievement of the new town objectives are debatable. As stated by Sir Murray Maclehose in 1972,

"If environmental standards are to improve, the bulk of new housing must be provided in the new towns in the New Territories.... For such a programme to succeed and to be acceptable to the potential inhabitants, three things seem to be essential. First, good communication [transportation and linkage] with the old urban areas... Secondly, the housing in the new towns must be accompanied by a
full ration of what essential to modern life: medical and secondary as well as primary educational facilities, parks and playgrounds, police stations, markets, fire and ambulance stations, community centres and much else [self-containment]. Thirdly, there must be work, and so site for private commercial and residential development [balanced communities].”

The Governor Sir Murray Maclehose
Announcing speech for the new housing plan 1972

While the housing standards such as flat size were successfully raised in the new towns, the new town planning in Hong Kong had failed to provide good transportation networks, sufficient job-containment and socially active neighbourhoods to the residents.

3.4 The Redevelopment Stage (1985-1990s)

3.4.1 Background

In 1987, with the adoption of the Long Term Housing Strategy to redevelop the old resettlement public housing estates in the urban areas, the Hong Kong Housing Authority carried out a survey to review the physical conditions of the early Mark resettlement blocks. The government estimated that approximately 500 resettlement blocks, which housed over 800,000 people, needed to be demolished. In 1988, the government prepared the Comprehensive Redevelopment Programme which aimed at redeveloping all the 500 substandard resettlement blocks within 15 years. Currently, these old resettlement blocks are being replaced by the new Harmony blocks (Hong Kong Housing Authority, 1988).

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19 Refer to section 2.3.1 for details.
3.4.2 The Neighbourhood Characteristics of the Harmony Block Estates

Following the trend of the new town planning, the neighbourhood planning of the Harmony blocks estates was very similar to the new town housing estates with only minor differences. Balanced and self-contained communities were still the main themes of the neighbourhood design. A typical Harmony block estate consisted of 20-25 Harmony blocks housing approximately 67,000 people. The estate were subdivided into small neighbourhoods each consisted of 4 to 6 Harmony blocks. Each neighbourhood was served with a 4-5 storey car park at a ratio of 1 parking space per 6 flats. There were 6-storey primary and secondary schools of sizes about 3,900m$^2$ and 5,800 m$^2$ respectively.

The commercial complex was the focal point of the housing estate. Because the estates were located in the urban area, the residents could also obtain services from hawkers and shops in the adjacent old urban areas. There were extensive footbridges and covered walkways connecting the commercial centres, schools and community facilities. With the restriction of vehicular traffic in the internal cul-de-sac service roads, most of the ground floor open spaces were planned as paved landscape gardens, sitting out areas and children playgrounds. Additional tennis and basketball courts were provided on the roof tops of the multi-storey car park. Figure 3.11 illustrates the neighbourhood planning of a Harmony blocks estate in the redevelopment urban areas.
Figure 3.11 Site layout of the Harmony Block Estate in Sau Mau Ping, Hong Kong
source: Hong Kong Housing Authority
Figure 3.12  Harmony III block in Lam Tin Estate, Hong Kong
• Concentration of Home Ownership Scheme Dwellers

The government considered that the Mark resettlement estates were potential sites for the home ownership scheme housing blocks, because most of the Mark resettlement estates were located in the urban area. As reported by the Housing Authority,

"Many of the (old Mark resettlement) housing were situated in the convenient urban locations where home ownership would be very popular, and provide a better balance of housing mix. This will assist one of the objectives of the Authority, to promote and satisfy the growing demand for home ownership."

Hong Kong Housing Authority Annual Report, 1992

From 1990 to 1993, there were an overall increase of 19,850 public rental units in Hong Kong. However most of the rental units were located in the second generation new towns. In fact, there was a reduction of 17,800 public rental units in the urban area in this period (Hong Kong Housing Authority, 1990 - 1993).

Table 3.4 NUMBER OF RENTAL AND HOME OWNERSHIP PUBLIC HOUSING UNITS IN THE PERIOD 1990 TO 1993 IN THE MAIN URBAN AREAS

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<tr>
<td>Total number of rental public housing units in the main urban areas</td>
<td>332,431</td>
<td>335,228</td>
<td>329,191</td>
<td>315,125</td>
</tr>
<tr>
<td></td>
<td>(+636)</td>
<td>(+2,797)</td>
<td>(-6,037)</td>
<td>(-14,066)</td>
</tr>
<tr>
<td>Total number of Home Ownership public housing in the main urban areas</td>
<td>24,146</td>
<td>25,780</td>
<td>29,508</td>
<td>38,842</td>
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<tr>
<td></td>
<td>(-)</td>
<td>(+1,634)</td>
<td>(+3,728)</td>
<td>(+9,334)</td>
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(The rates of unit production per year are shown in the brackets.)

source: calculated from Hong Kong Housing Authority Annual Reports 1990 to 1993

On the other hand, over 14,700 home ownership public housing units were produced in the urban areas. These figures indicated that the urban Harmony block housing estates were

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20 Urban areas include the Hong Kong island, Kowloon and New Kowloon areas.
mostly built for home buyers. The low income rental housing blocks were mostly located in the new towns.

• **Weak Neighbourhood Link, Strong Friends and Relatives Ties**

Like the new town housing estates, the informal neighbourhood network in the urban Harmony blocks was weak because of the lack of communal spaces, the heterogeneous backgrounds of the residents, and the separation of social activities. Nonetheless, the sense of isolation was not strong. The weak sense of isolation was due to the residents’ close linkages to their jobs, friends and relatives who mostly lived in the urban areas. To the old housing residents, the relocation of housing within the same locality preserved their ties with their friends, relatives and neighbours. During the rehousing, the commercial tenants were also given ex-gratia allowances and those who wished to continue their business could tender for commercial premises in nearby new public housing estates. With careful synchronising of the redevelopment phases which included planning, demolition, construction and occupation stages, it took 6 years to rehouse the affected residents within the same districts. It only took about 1 to 2 years to house residents in the new town housing estates. Despite the lengthy redevelopment process, the policy to rehouse affected tenants within the same locality disrupted fewer social ties (Hong Kong Housing Authority 1990).

• **Ownership As Social Attachment**

According to the Hong Kong Housing Authority, home ownership could reinforce the sense of belonging in the public housing estates. With home ownership as the principal material asset of most families in Hong Kong, the dwellers would take care and participate constructively in their communities to safeguard their investments. As argued by Hays,
“Through home ownership, the family becomes responsible for maintaining the value of its asset through physical maintenance of the structure and through helping to maintain neighbourhood quality... In addition, to its material benefits, home ownership has been strongly linked to psychological well-being through the sense of pride and autonomy it is said to confer. The element of pride is derived from the social status attached to the physical dwelling place and the surrounding neighbourhood.”

R. Allen Hays
Ownership, Control, and the Future of Housing Policy

In order to encourage home ownership, attractive purchase packages were provided to the public housing tenants by the government. These included mortgage up to 95% of the purchase prices with 20-year repayment period provided by the government. In addition, the housing policy that prohibited resale and letting of the home ownership flats within 10 years also stabilised the residential mobility in the housing estates. The restrictions also suppressed speculation on the home ownership housing flats. Consequently, the social attachment of the residents could be developed with time.

- Neighbourhood Empowerment

The Hong Kong Housing Authority also recognised that good estate management was vital in establishing a sense of belonging. Since 1954 when the first Mark resettlement housing blocks were built, the government had been managing all the public housing estates. However with the housing policy shifted towards privatisation in 1992, the management of 17 home ownership housing estates were subcontracted to private management agencies. According to the Housing Authority, the long term objective was to encourage home owners to take over the management works of their own housing estates (Hong Kong Housing Authority, 1992). The flat owner organisations, mutual aid committees and residents associations were also invited to participate in monitoring the management work at the same
time. Regular meetings were held amongst the parties to investigate ways to meet the specific demands of the estate dwellers. With more participation, the residents could directly control their immediate neighbourhood environments and develop a sense of attachment. As commented by Fanny Law\textsuperscript{21} in the closing speech in the Hong Kong Housing Conference 1996,

"This summing up [of the speech] would be incomplete without mention of residents' participation and a more customer oriented approach to estate management, which have gained momentum in Hong Kong more recently, following the successful examples in UK and Singapore. The perceived benefits of residents' participation are better quality of decision-making, enhanced neighbourliness, improvement in the landlord and tenant relations and a higher rate of satisfaction among residents."

Fanny Law
Closing Speech for the Hong Kong Housing Conference
"Housing for Millions, 1996"

3.3.3. Summary of the Development Trend

By 1990, all the Mark resettlement blocks were over 25 years old. Based on the life expectancy of the housing estates, the old Mark resettlement estates were scheduled to be completely replaced by the new Harmony blocks estates. In 1992, the first Harmony blocks under the redevelopment programme, was completed in Lam Tin, Kowloon. (Hong Kong Housing Authority, 1993).

- The Preservation of Ties to Jobs, Friends and Relatives

Although the informal neighbourhood networks were not particularly active in the Harmony blocks, residents felt less isolated than the residents in the new town housing. This is because of the reinstated social ties to jobs, friends, relatives and neighbours. This preservation of social ties was only possible with the housing policy to rehouse residents

\textsuperscript{21} Deputy Director of the Hong Kong Housing Department 1996.
within the same districts. However, such redevelopment could be lengthy. Each redevelopment took 6 years to rehouse the residents in the Mark redevelopment projects.

- **Towards More Housing Participation**

Unlike the early new town estates in which the residents were involved very little in the estate management, more management opportunities were open to the residents in the new Harmony block estates. With the empowerment of the local residents to control their own neighbourhoods, the sense of self control was enhanced. In addition, with the "enabling" approach, the demands and expectations of the residents in the housing estates could be heard and responded by the government. This could lead to the enhancement of the sense of belonging (Carley, 1990).

- **Towards More Home Ownership**

The improvement of estate amenities and the home ownership not only reinforced the residents' attachment to the local community, but they also had stimulating impact on the surrounding communities. The impact included the gradual increase of middle income residents in the old urban districts which resulted in higher property values for the surrounding private sector housing. Such, in turn, stimulated the private sector to redevelop the old urban private residential sites for new residential towers. The consequence was the speeding up of the urban renewal process both in the public and private sector. With the Harmony block estates as the leading development engines, it was not uncommon to find new high-rise residential towers popping up in the old urban areas in Hong Kong.
3.5 Conclusion

Since the completion of the first Mark I resettlement estates in 1954, the neighbourhood planning of the public housing estates had undergone a series of evolution. The early laissez-faire approach in the Mark I and II resettlement estates was replaced by the neighbourhood unit planning in the Mark III, IV, V and VI resettlement estates. The neighbourhood unit concept was further developed into the “balanced communities” and “self-contained communities” approaches in the New Town and Harmony block estates. The development of the housing estate neighbourhood in Hong Kong public housing has the following trends.

- **From Informal Neighbourhood Network to Formal Community Support**
  The early Mark resettlement estates were well known for the informal intimate neighbourhood networks. These networks were developed based on the inherent need for neighbourly assistance, the homogeneity of backgrounds and the frequent neighbourhood contacts. Mutual trust was developed amongst the dwellers. With more formal community establishments in the new town housing estates, more formal social service was provided to the residents in the New Towns public housing estates. Together with the social isolation amongst dwellers in the New Town housing blocks, the reliance on formal community establishments to create and maintain neighbourliness was more apparent.

- **From Integrated Layout to Separation Planning**
  In the early resettlement estates, the proximity of daily services provided great convenience to the residents. First, shopping, entertainment and food stalls were found in the street-hawker precincts. Second schools were located at the roof top of the resettlement blocks. Third, factories [and therefore jobs] were available across the streets. In fact, without much zoning restrictions, the resettlement estates might incrementally develop into integrated
communities which truly reflected the social demands and patterns of the dwellers. However, with the introduction of the rigid planning concept, social activities were disintegrated into separate functional zones.

- **Towards the Residents’ Enablement**

According to Law (1996), the tendency to provide rental public housing had led the government to subsidise indiscriminately more and better housing. This trend was financially unsustainable and would stifle private investment in housing. Home ownership and estate management privatisation were the two keys to attain financial sustainability. In addition, by playing an enabling role in mobilising the residents to improve their own homes, the government not only could reduce the capital cost of the housing investment, but also could encourage stronger neighbourhood attachments of the residents. However, since the enabling strategy is still in the pilot stage, the impacts on neighbourhood formation in Hong Kong has yet to be determined. Table 3.3 summarises the social characteristics of the Mark resettlement estates, New Town estates, and the Harmony block estates.

Having reviewed the public housing neighbourhood conditions, it can be summarised that the following factors were essential in the neighbourhood formation in the public housing in Hong Kong.

- **Communal opportunities**— communal spaces inside and outside the building blocks were essential in facilitating informal neighbourly interactions.

- **Compatibility of background**— homogeneity of background, common concerns, common interests, similar socio-economic strata and similar familial problems were important factors in encouraging neighbourhood friendship development.
• **Familiarity of environment**- proximity to friends, relatives and jobs, knowing the neighbours and the surrounding neighbourhood activities could create a sense of familiarity and security amongst the dwellers.

• **Social pride**- social pride facilitated the development of a sense of belonging with which the dwellers would feel like 'part of the community' and the association with the community.

• **Social involvement**- the direct participation in form of mutual help, estate management, home improvement and ownership gave dwellers a sense of control with which community attachment could be built upon.

Having studied the neighbourhood development of the public housing in Hong Kong, the next chapter will discuss the factors that affect the neighbourhood formation in the public housing in Hong Kong.
### Table 3.3 COMPARISON OF THE MARK, NEW TOWN AND HARMONY BLOCK PUBLIC HOUSING

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning focus</td>
<td>none / community core</td>
<td>commercial centre</td>
<td>commercial centre</td>
</tr>
<tr>
<td>Number of blocks in each estate</td>
<td>20</td>
<td>9</td>
<td>varies</td>
</tr>
<tr>
<td>Estate location (relate to city core)</td>
<td>urban areas</td>
<td>distant from the urban areas</td>
<td>urban areas</td>
</tr>
<tr>
<td>Gross density (persons per hectare)</td>
<td>4,000-6,000</td>
<td>1,800</td>
<td>2,000</td>
</tr>
<tr>
<td>Planned open space (hectare per 100,000 persons)</td>
<td>0.8</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Neighbourhood contacts</td>
<td>strong informal neighbourhood activities</td>
<td>weak</td>
<td>as new town estates</td>
</tr>
<tr>
<td>Shopping services</td>
<td>illegal hawker precincts and estate shops at the ground floors of the resettlement blocks</td>
<td>concentrated in the commercial centres</td>
<td>commercial centres and in the old urban areas</td>
</tr>
<tr>
<td>School facilities</td>
<td>at roof tops and in separate 6 storey buildings</td>
<td>in separate 6-storey buildings</td>
<td>as new town estates</td>
</tr>
<tr>
<td>Recreational spaces</td>
<td>little</td>
<td>as district open spaces, landscaped plazas and sports courts</td>
<td>landscaped plazas and sports courts</td>
</tr>
<tr>
<td>Community organisations</td>
<td>informal local residents' groups and welfare groups. focus on mutual helps in daily problems</td>
<td>formal voluntary organisations concentrated in the commercial centres</td>
<td>as new town estates</td>
</tr>
<tr>
<td>Circulation</td>
<td>pedestrian-vehicle mixed</td>
<td>pedestrian-vehicle segregated</td>
<td>as new town estates</td>
</tr>
<tr>
<td>Local jobs</td>
<td>very close to nearby local factories in main urban area</td>
<td>difficult to find local jobs</td>
<td>close to main urban area with plenty white collar jobs</td>
</tr>
<tr>
<td>Tenure and ownership</td>
<td>mainly rental. tenure secure</td>
<td>partly rental and partly home ownership</td>
<td>partly rental and increasing home ownership</td>
</tr>
<tr>
<td>Finance and Affordability</td>
<td>low rents. affordable by low income people.</td>
<td>low rents. affordable by low income people. Rents increase annually as a result of the rental review each year</td>
<td>favourable mortgage and finance arrangement provided to home owners.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>rent: HK$599(^{22}) (US$86) roughly 8% of family income</td>
<td>rent: HK$1,255 (US$179) roughly 11% of family income</td>
<td>rent: HK$1,583 (US$226) roughly 13% of family income</td>
<td></td>
</tr>
</tbody>
</table>

source: data from Yeh and Laquian (1979), Housing Authority Annual Reports (1968 to 1993)

\(^{22}\) Prices in 1996.
Chapter 4

THE NEIGHBOURHOOD FACTORS

4.1 Introduction

From 1986 to 1996, the Hong Kong government produced some 680 hectares of land for public and private housing (Hong Kong Government, 1997). During this period, the government constructed an average of 4,100 public housing units each year (110 housing units per day). With the rapid production of public housing flats, the number of inadequately housed families\(^1\) dropped from 30% (1.8 million) of the total population in 1986 to 9% (0.4 million) in 1996 (Hong Kong government, 1997).

Although there was a huge increase of public housing stock, the success of any social housing programme cannot and should not be assessed merely from the production of housing stock alone. It should also be evaluated based on the social consequences for the dwellers (Yeh and Yeung, 1975; Chang, 1975, Turner, 1976). In Hong Kong, most of the public housing dwellers live in high density high-rises. These high density, high-rises inevitably have an important impact on the social behaviour of the people. The question of how to encourage social contact in the high density high-rises is important, particularly in view of the rapid and extensive housing programme in Hong Kong. Having discussed the neighbourhood planning of the Mark resettlement blocks, Trident blocks and Harmony blocks in chapter 3, this chapter discusses the following relationships.

\(^1\) An inadequately housed family is defined as a family living in accommodation which is either made of temporary material or not self-contained i.e. without its own tap water supply, toilet and kitchen facilities.
4.2 Residential Density and Neighbourliness

4.2.1 The Impact on the Intensity of Neighbourliness

High density living is a characteristic of the public housing in Hong Kong. With Hong Kong's current population of 6.2 million and its limited territorial area of 110,000 hectares, the overall territorial density is about 60 persons per hectare (Hong Kong government, 1996). The average public housing residential density, which measures the number of residents per estate site area, is about 2,500 persons per hectare and 2,500-3,000 persons per hectare in the new towns and in the urban area respectively (Hong Kong Planning Standards and Guidelines, 1989). According to Yeh (1991), Hong Kong is one of the most densely populated cities in the world.

The high residential density (2,500-3,000 persons per hectare) in Hong Kong is often considered unacceptable by western planning standards. Classic environmental and psychology experiments using mice, rats and monkeys predicted that residents in high density living condition would suffer from mental distress, social behaviour disruption and social relationship deterioration. (Calhoun, 1971; Christian, 1963; Sommers, 1974). Although it is clear that the high density living condition has profound effects on the social
behaviours of animals in the controlled experiments, the uniformly negative impacts on
humans are doubted by sociologists. This is because there is no statistical evidence to
suggest the co-relationship between the disruption of social behaviour and the high
residential density in human society (Mitchell, 1972; Richardson, 1977; Geve & Hughes,
1983). Having examined the living conditions in Hong Kong, environmental psychologists
like Proshansky, Bell and Lee found no significant increase of social behaviour disruptions
in Hong Kong. They concluded that high density living per se had no significant effect on
the social and neighbourhood stress in Hong Kong. In fact, Bell further explained that Hong
Kong people, 90% of whom were Chinese, could overcome the adverse effect of high density
living by developing a unique culture in adapting the high residential density compact living.

Despite the high urban density, there was a consistent reduction of planned residential
density in the public housing estates in Hong Kong (Lai, 1990). For example, in 1955, the
first Mark resettlement estate was planned at 7,272 persons per hectare. In 1975, the Oi
Man estate was planned at 5,162 persons per hectare. In 1989, the Hang On (Trident) estate
was planned at 3,000 persons per hectare, and in 1993, the Lam Tin (Harmony) estate was
planned at 2,700 persons per hectare. The increase of personal space allowance also
illustrated the de-densification trend. For example, the personal space allowance was only
2.2m² in the Mark resettlement estates. It was increased to 9m² per person in the Harmony
Table 4.1 COMPARISON OF SELECTED HOUSING ESTATES IN HONG KONG

<table>
<thead>
<tr>
<th>Year completed</th>
<th>Estate Name</th>
<th>Housing Type</th>
<th>Estate Density (persons / hectare)</th>
<th>Planned Personal space allowance (m²/person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>Shek Kip Mei</td>
<td>Mark I</td>
<td>7,272 (the first 8 blocks)</td>
<td>2.2</td>
</tr>
<tr>
<td>1975</td>
<td>Oi Man</td>
<td>Double H point</td>
<td>5,162</td>
<td>3.3-5.1</td>
</tr>
<tr>
<td>1989</td>
<td>Han On</td>
<td>Trident</td>
<td>3,000</td>
<td>5.8</td>
</tr>
<tr>
<td>1993</td>
<td>Lam Tin</td>
<td>Harmony</td>
<td>2,700</td>
<td>7-9</td>
</tr>
</tbody>
</table>

Source: Lai (1990); Hong Kong Housing Authority (1964-1993)

However, the public housing de-densification process did not show any corresponding positive effect on the intensity of the neighbourhood interactions. On the contrary, there was an overall decline of neighbourly activities in the Trident and Harmony blocks despite the increase of personal space allowance and the reduction of residential density. Although the qualitative comparison lacks experimental control such as controlled income and family structure, the direct comparison suggests that the estate residential density per se is not a determining factor of the neighbourly interaction intensity. The finding is in line with the research by Mitchell, who also concluded that the high residential density in the public housing estates in Hong Kong had no significant impact on the basic level of neighbourhood stress and hostility (Mitchell, 1971).

Table 4.2 THE RELATIONSHIP BETWEEN THE RESIDENTIAL DENSITY AND THE NEIGHBOURLINESS IN THE PUBLIC HOUSING IN HONG KONG

<table>
<thead>
<tr>
<th>Mark resettlement blocks</th>
<th>Trident blocks</th>
<th>Harmony blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average residential density (persons / hectare)</td>
<td>4,000-6,000</td>
<td>1,800</td>
</tr>
<tr>
<td>Personal space allowance (m² per person)</td>
<td>2.2m² to 3.2m²</td>
<td>5.3m² to 7.4m²</td>
</tr>
<tr>
<td>observed neighbourly activities</td>
<td>strong</td>
<td>weak</td>
</tr>
</tbody>
</table>
4.2.2 The Impact on Behavioural Pattern

Despite little significant effect on the intensity of neighbourly interactions, the compact living condition could affect the behavioural pattern of the dwellers. Living in the overcrowded flats in the Mark resettlement blocks, the elderly and children often temporally left their homes to escape from the congested and noisy flats. This "squeeze-out" effect was supported by Mitchell's study which,

"indicates that the high density living appears to affect the amount of surveillance that parents have over their children. For the higher the density, the higher is the proportion of parents who say that they do not know where their children are playing."

_Housing, Urban Growth and Economic Development_  
R.E. Mitchell 1972

Because of the "squeeze-out effect", the nearby close-to-home open spaces became important venues for the elderly and the youth to socialise in the housing estates in Hong Kong.

4.2.3 Building Height and Neighbourliness

For most public housing development in Hong Kong, the government planning standard (2,700 persons per hectare) has set forth a target housing estate population. To meet the large estate population, it is common to construct high-rise public housing. Theoretically, tall buildings do not necessarily imply high residential density, nor does high residential density impose high rise building form. In fact, the high rise built form is commonly approved in Hong Kong because of the fast construction time and high land efficiency. However, in criticism, those who are suspicious of this form of housing point to the reduction of neighbourly activities in high rises (Jephcott, 1971; Mitchell, 1971; Chang, 1975).
A comparison of the Mark, Trident and Harmony block showed that the low rise Mark resettlement blocks exhibited stronger neighbourly activities than the high rise Trident and Harmony blocks. The reduction of neighbourly activities in high-rises was illustrated by the fact that the neighbourly activities in the 6-7 storeys Mark I and III blocks were 1.3 times more active than the 8-16 storeys Mark IV to VI blocks (Kan, 1978). In low rise buildings, residents were close to the ground floor where they could bring their children to the nearby street playground and communal facilities. They could also watch activities at street level, thereby increasing their neighbourhood contact. The comparison of the Mark IV-VI, Trident and Harmony blocks, (all equipped with self contained flats and internal corridors) also illustrated that the low rise Mark IV-VI blocks had stronger social activities than the high rise Trident and Harmony blocks. For example, little neighbourly interaction was observed in the public corridors and stairways when the building heights were increased to 20-30 storeys. In addition, the insufficiently lit internal corridors inside the high-rise blocks often hindered the growth of neighbourly activities. The finding is in line with the research by Jephcott who concluded that high rise building blocks exacerbated anonymity of life and isolation of people. The high rise flat itself was a sealed cell and residents on the upper floor knew far less than those living near the street (Jephcott, 1971). Similar results were also
found in Singapore. More public housing residents, who lived in upper floors, reported that they had less neighbourly contact with their neighbours (Ching, 1988).

In summary, there is evidence to support the hypothesis that low-rise public housing (6-7 storeys as in the Mark I and II blocks) could enhance neighbourly interaction because of the close connection to the ground floor communal activities. In view of neighbourhood encouragement, low rise public housing is therefore better than the high rise counterpart. However, in the land-deficient urban context in Hong Kong, the practicality of building low-rise public housing needs further investigation.

4.2.4 The Optimal Building Height

According to the Hong Kong Standards and Planning Guidelines 1989, the long term target residential density for urban housing estates is approximately 2,700 persons per hectare. The community facilities, such as open spaces, markets, bazaars, normally take up about 17 hectares per 100,000 persons in the Trident and Harmony blocks. However, to allow for future needs, temporary uses, unforeseen requirements and flexibility in designing community facilities, the Hong Kong Standards and Planning Guidelines recommend a ratio of 21 hectares per 100,000 persons. Given the optimal building height relationship as follows:

optimal building height = \( \frac{\text{planned residential density} \times \text{construction space per person} \times \text{site area}}{\text{total site area} - \text{area for community services} - \text{area for roads}} \)
Taking (a) the construction space\(^2\) per person to be 18\(m^2\) per person (which is the same as the Harmony blocks) and (b) the roads, cutting and embankments occupy 20% of the site. Then for a net residential density of 2,700 persons per hectare, the optimal building height is estimated to be 20 storeys\(^3\).

Theoretically, the building height of public housing has to be at least 20 storeys to accommodate the planned population density (2,700 persons per hectare). However, when the housing site is on steep slope, more retaining walls, cutting slopes and access roads spaces are needed. In this case, taller buildings are required to meet the planned population density. With the hilly terrain in Hong Kong, low rise public housing blocks (less than 20 storeys) would apparently be impossible without significantly reducing the estate residential density.

In 1990, with the adoption of the Metroplan regional planning strategy in Hong Kong, the Hong Kong government attempted to dramatically reduce the residential density of the public housing estates. According to the Metroplan: Formulation and Frameworks (1990), by the year 2011, the residential density for rental public housing will be reduced to 1,900 persons per hectare. The residential densities for the Home Ownership Scheme and Private Sector Participation Scheme housing estates will be reduced to about 1,500 persons per hectare. With the same provision of open spaces and community facilities, the minimum building height of the future public housing blocks will be 14 storeys\(^4\) (Hong Kong

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\(^2\) Construction space per person: measured as the average public housing tower construction area per person.
\(^3\) \[
\frac{(2,700 \times 18)}{(1 - (21 \times 2700/100,000) - 0.2) \times 10,000}
\] = 20 storeys
\(^4\) \[
\frac{(1,900 \times 18)}{(1 - (21 \times 2700/100,000) - 0.2) \times 10,000}
\] = 14 storeys
government, 1990 a,b). Nonetheless, the reduction of the residential density implies a high consumption of territorial land for residential purpose. Currently, the urban built-up areas (such as buildings, bridges, roads and industrial lands) occupy 17% of the territorial lands in Hong Kong. The green belt occupies about 70% of the territorial land. The rest of the land are fish ponds, arable lands and non cultivated lands.

Table 4.5 LAND USES IN HONG KONG 1988

<table>
<thead>
<tr>
<th>Class</th>
<th>approximate area (hectares)</th>
<th>percentage of total area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban built up area</td>
<td>10,500</td>
<td>9.8</td>
</tr>
<tr>
<td>rural developed area</td>
<td>7,500</td>
<td>7.0</td>
</tr>
<tr>
<td>woodlands</td>
<td>22,000</td>
<td>20.5</td>
</tr>
<tr>
<td>grass and shrub lands</td>
<td>53,300</td>
<td>49.8</td>
</tr>
<tr>
<td>badlands</td>
<td>4,400</td>
<td>4.1</td>
</tr>
<tr>
<td>swamp and mangrove lands</td>
<td>100</td>
<td>0.1</td>
</tr>
<tr>
<td>arable land</td>
<td>7,200</td>
<td>6.7</td>
</tr>
<tr>
<td>fish ponds</td>
<td>2,100</td>
<td>2.0</td>
</tr>
</tbody>
</table>

sources: Hong Kong government 1988; Lai, 1990

If the average residential density is reduced from 2,700 persons per hectare to 1,500 persons per hectare, the residential sector will consume 15% of the greenery areas. Recently, environmental researchers have been working to determine the relationship between building forms and environmental impacts (Wong, 1996; Shawkat, 1995; Rees, 1995; Wackernagel, 1994). They have developed a tool called “ecological footprint” or “carrying capacity,” to measure the ecological impact of building development. When buildings are constructed, maintained and demolished, they consume energy. Natural green lands, on the other hand, capture energy in the ecological system. The principle of ecological footprint is to compare the amount of energy required to build, maintain and demolish the buildings and the size of natural green land required to produce energy to support the building development.
According to Wackernagel and Rees (1995), the ecological footprint for Asian developed cities is about 2 to 3 hectare per person. With a population of 6.2 million, the ecological footprint of Hong Kong is about 12,000,000 to 18,000,000 hectares (territorial area of Hong Kong is 110,000 hectares). The further reduction of residential density and building height in Hong Kong will exploit more natural green lands, and as such is ecologically undesirable.

4.2.5 Summary

Having reviewed the relationship between the intensity of neighbourly activities and the residential density, the following findings can be summarised:

- **Residential density affected behavioural pattern but not intensity of interaction** - The comparison of the Mark, Trident and Harmony blocks showed that high residential density *per se* (compact living) did not have significant adverse impact on the intensity of neighbourly interaction in the public housing in Hong Kong. In the Mark resettlement blocks, the overcrowded and noisy flats caused the elderly and the youth to escape from their flats and spent more time in the playgrounds, external open spaces and community facilities. Consequently, communal open spaces and community facilities became important venues for social interactions in high density public housing.

- **Low rise public housing as a planning alternative** - Low-rise public housing is more desirable than high rise counterparts in terms of encouraging neighbourhood formation in Hong Kong. The low-rise building form implies a reduction of residential density which means converting more greenery area into residential area. Further investigation is needed to ascertain the ecological impact of low-rise public housing in Hong Kong.

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5 The ecological footprints for Japan and South Korea are also about 2-3 hectare per person.
4.3 Communal Spaces and Neighbourliness

4.3.1 Sharing As a Mean of Social Contact

When the Mark I and II blocks were built, the public housing blocks were designed for mere shelter without neighbourhood consideration. Nonetheless, neighbourly contacts were active in the Mark I and II estates. These neighbourly contacts often occurred simultaneously with the daily household activities. For example, the housewives could talk to and exchange household experiences with their neighbours while they were doing their household work. They could also interact while they were washing clothes in the communal washroom, drying clothes on the roofs, and cooking along the external balconies. In other words, the communal activities in the Mark resettlement blocks were always associated with the concentration of the common daily household activities. Such concentration of common daily household activities was achieved by forced sharing of the communal household facilities in the Mark I and II blocks.

However, since the launch of the ten years housing programme in 1971, the Hong Kong government has been providing completely self-contained flats in the public housing. By the 1980s, there were private water, electricity, clothes drying racks, kitchens, and toilets in all public housing flats. The private household facilities provided convenience, security and privacy to the dwellers. Over the years, the general public were better educated and their financial situations were improved. Dwellers (particularly the young families) are now reluctant to move into housing blocks without private household facilities. In fact, most of the residents (80%) in the Mark I and II blocks wanted to move away because of the deficiency of household facilities (Li and Yu, 1987; Leung, 1986). As the lifestyle of the
residents have changed, the forced sharing of the communal household facilities is now no longer acceptable in encouraging neighbourhood development.

Apart from the internal household communal spaces, the external open spaces were also important gathering places. In the Trident and Harmony blocks, there were planned recreational and social facilities such as large centralised plazas, podium gardens, paved amphitheatres, elderly centres, libraries, children’s playgrounds and youth centres. Nonetheless, the residents did not often use the open spaces and community facilities.

In a survey, Kan (1981) asked the public housing residents why they did not use the external open spaces, 60% of the children responded that “environmental insecurity” was the major reason. The parents responded similarly pointing out their “fear of children falling into bad company”. Over 50% of the respondents forbid their children to go to the open public playground and recreational areas, while 34% of the parents discouraged their children from using the libraries and reading rooms. Furthermore, even the adult residents in public housing were so “fear-sticken” that the sense of insecurity developed into a sort of “crime phobia” (Kan, 1981). Dr. Chiu (1997) also expressed the same view in an interview. She agreed that the gathering of gangs, thefts and triad members in the open spaces, such as playgrounds, bazaars, cooked-food stalls, had caused so much nuisance to the public that the residents were afraid to use the facilities.

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6 Kan identified that there were two types of community facilities—
a. primary community facilities includes retail shops, markets and schools, and 
b. secondary community facilities includes libraries, youth centres, elderly centres and open spaces
The primary community facilities are found to be fully utilised because of the survival needs. But the secondary community facilities are often found to be under used in the housing estates
7 Dr. Chiu is currently the co-ordinator of housing studies and research in the University of Hong Kong
4.3.2 Safe Communal Space in Housing Estate

When security was concerned, the residents felt safer in the Mark I and II blocks than the Mark IV-VI blocks. This was because of the high degree of visual surveillance in the Mark I and II estates. The high degree of surveillance in the Mark I and II housing estates was enhanced by the following physical setting (Newman, 1978, 1982).

- **External balcony approach**- The naturally lit, single loaded balcony corridors allowed natural visual surveillance from both the flat units and the streets. With the kitchens located externally on the corridors, the corridor spaces were effectively territorised by the dwellers. The dwellers could immediately notice any strangers or passer-bys infringing their territory. In addition, any victims of crime in the open public corridors could easily summon for help or alert their neighbours.

- **Low rise building**- Visual and audio contact could be maintained in the low rise public housing because of the proximity to the streets. In addition, with the open stairway layout at the end bays of the Mark I and II blocks, the activities were watched from the streets. The passer-bys and the residents could easily spot any illegal activities such as theft, robbery and drug dealing.

- **Communal bathrooms and washrooms**- The communal bathrooms and washrooms were fairly safe during the day because of the concentration of household activities. However, they were less safe at night because they were far from the dwelling flats which reduce the surveillance opportunities. (The bathrooms and toilets were located at the cross bridge of the building) In addition, the uncontrolled access of strangers from the ground floor also imposed security threats to the dwellers at night time.
• **Roofs**- The roofs were one of the most insecure spaces because drug addicts often used the places for illegal activities. As the roofs were the most difficult places to be watched, they were often locked. There was less security problem when primary schools were built on the roofs of the Mark II blocks.

• **Ground floor**- On the ground floor of the Mark resettlement blocks, there were retail shops, reading rooms, elderly centres, kindergartens, youth centres, markets and restaurants. Besides the provision of constant visual surveillance on the streets, the multiple uses of ground floor spaces had additional advantages. First, it provided convenient access to the community facilities such as youth centres, welfare offices and Kaifong associations. The proximity encouraged the youth, housewives and the elderly to use the community facilities more often. This in turn enhanced the sense of familiarity and reduced the sense of anonymity. Second, parents might feel easier to let their children attend the centres that were within easy reach from their homes. Third, the daily retail stores provided convenient and cheap daily commodities to the local residents. With the retail tenants allowed to alter their business at will, the services and retail supply could gradually, with time, meet the needs of the local residents.

• **Open playgrounds and gardens**- Open playgrounds such as mini-soccer fields were problematic places in the Mark resettlement blocks, because they were usually associated with gang gatherings, robberies, drug dealing and sexual assaults. The problem of insecurity was largely due to the improper locations of the playgrounds. These playgrounds were often located at the fringe of the housing estate site. With isolation from the main residential areas, these places were often under insufficient surveillance.
In the Trident blocks and Harmony blocks, the insufficiently lit internal corridors, lift lobbies and staircases were unsafe because of the deprivation of surveillance opportunities. Although there were security guards and electronic surveillance equipment in the Trident and Harmony blocks, the fear of encountering strangers inside the building often prohibited the use of the internal common spaces. In addition, the monotonous zoning of the Trident and Harmony blocks had also caused the ground floor open spaces to be deprived of retail activities. Together with the excessive sizes of the centralised gardens, plazas and open amphitheatres in the Trident and Harmony housing estates, the open spaces were often under-used.

In fact, sociological studies show that the elderly, children and the youth demand for more close-to-home unspecialised external recreational spaces than large specialised central parks. In the Mark I and II blocks, the 15 metres x 50 metres semi-courtyards were considered quite suitable for communal purpose because the spaces were small, close to home and embracing in shape. The spatial configuration of the open spaces provided visual surveillance opportunities as well as flexibility to meet the social needs of different users. For example, the elderly could sit underneath the trees, play chess or chat with their neighbours in the inter-block courtyards in the Mark I and II blocks. The children could play games such as jump rope and hide-and-seek. The youth could play soccer and badminton in the semi-courtyard spaces.
Figure 4.1 Neighbourhood activities in Shek Kei Mei Mark I Resettlement Block

source: field study
Figure 4.2 Communal garden in Mark I resettlement block in Shek Kip Mei Resettlement Estate, Hong Kong
This pocket space hypothesis was confirmed by a field observation in Shek Kip Mei resettlement estate. The local residents used the inter-block spaces as outdoor rest places, communal gardens, clothes drying areas and children's playgrounds. In contrast, there were fewer activities in the nearby isolated parks because of the sense of insecurity. Figure 4.2 illustrates the locations of neighbourly activities in the Shek Kip Mei resettlement estate.

4.3.3 The Sky Lobby Concept

Although the close-to-home pocket spaces works well in the low rise Mark I and II blocks, the concept can be applied to high rise buildings. For example, there are communal sky lobbies in the Clague Garden in Tsuen Wan and the Siu Wo Estate \(^8\) in Shatin, Hong Kong. The Siu Wo estate consisted of nine 35-storey housing towers grouped in 3 communities providing a total of 3,500 flats. Each community consisted of 3 residential towers grouped around a landscaped courtyard. School, markets, restaurants and retail shops were planned at the podium. The flat units was planned in a spin wheel pattern with open stairs directly linking to the lift lobbies. The lift lobbies, at each three floors, acted as communal sky lobbies. The sky lobbies were designed as play spaces such as for table tennis for the local children. Neighbourhood activities were expected to be encouraged in the sky lobbies because the sky lobbies were safer (with restricted access), close to home and watched by the neighbours. However, the effectiveness of sky lobbies is uncertain because no proper research has been carried out to assess these high-rise projects. Further investigations are needed to assess the effectiveness of these sky lobbies. Figures 4.5, 4.6 and 4.7 illustrate the layout and elevation of Siu Wo Court.

\(^8\) The Clague Garden and the Siu Wo Court were designed by P&T Architects and Engineers Ltd in Hong Kong.
Figure 4.5 Siu Wo Court Housing Estate Hong Kong
Source: P&T Architects and Engineers
Figure 4.7 (a) Typical floor plan of Siu Wo Court (b) Typical section of the building source: P&T Architects and Engineers
Figure 4.6 Elevation of the Clague Garden tower, Tsuen Wan, Hong Kong
4.3.4 Summary

Having reviewed the relationship between the intensity of neighbourly activities and the provision of communal spaces, the following findings can be summarised:

- **Forced communal interaction**- The forced sharing of communal household facilities in the Mark I and II blocks was an effective way to encourage neighbourly interaction. However, with the raising housing expectations, living standards and demand for privacy, the “forced sharing” of household facilities in building design is inappropriate in future public housing.

- **Provision of safe, close-to-home communal spaces**- The maintenance of the sense of safety is the most critical factor in encouraging neighbourly activities in the public housing in Hong Kong. Architecturally, the sense of safety can be facilitated by “defensible designs”, which include the maintenance of visual surveillance, the planning of low rise buildings, the planning of external balcony corridors and the integration of retail, residential and recreational activities (Newman, 1978). Small close-to-home unspecialised open spaces are more effective than distant large open spaces in encouraging neighbourly activities. This is particularly apparent in the Mark resettlement blocks because close-to-home pocket spaces were often watched by neighbours, and the residents felt safer to use the close-to-home pocket spaces.

4.4 Compatibility of Background

4.4.1 Social Residential Heterogeneous Mix

Social compatibility was often considered as an important factor in facilitating the social interaction in the housing estates (Michelson, 1975; Rossi, 1986). In the Mark resettlement
estates, the concentration of homogeneous dwellers with similar socio-economic backgrounds enhanced the social compatibility. For example, 80% of the residents were low income people who earned less than HK$1,000 (US$200) per month. 89% of the residents were Cantonese who came from south China provinces. 53% of the residents had only attained primary education level.

However, the concentration of homogenous low income people accelerated the out-migration of higher income people. As a result, housing segregation occurred in the old Mark resettlement blocks. Apart from the formation of barrier to inter-class understanding, the housing segregation also led to segregated schools, shopping areas, recreational facilities and spawning of a divided society. The concentration of the low income people often created image of ghettos that were associated with gangs, drug addicts and triad members. The result was the out-migration of wealthier people, which in turn further accentuated the segregation. Sociologists found that with the concentration of homogenous low income residents, socially deviant behaviours such as crime and violence could spread within the neighbourhood by “infecting” other local residents. A greater housing segregation often resulted in a higher degree of deviant behaviours (Crane, 1991). The consequence was the sense of deteriorating living quality. The sense of belonging weakened when residents lived without pride in the old housing estates. On the other hand, a multi-class community in the Trident and Harmony blocks could enhance better inter-class understanding. The heterogeneous mixing could also uplift the public housing social and economic image, with

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9 Cost in 1978, equals HK$2,850 (US$ 400) in 1996
the middle class serving as a source of status emulation to the lower class (Chen, 1980; Huttman ed, 1991; Albrecht and Hwang, 1991).

4.4.2 Homogeneous Neighbourhood Niches at Building Block Level

While the social heterogeneity at community level can reduce the adverse impacts of housing segregation, the planning of localised homogeneous groups within building blocks can directly enhance the neighbour relationship. This is because dwellers often initiate their interaction with their neighbours near their flats. In addition, sociological studies show that couples, families with children and elderly residents demand different neighbourhood spaces (Kan, 1980; Mitchell, 1980; Michelson, 1975; Rossi, 1980).

The couples, who are mostly blue or white collar workers in Hong Kong, spend most of their time at their work places. They tend to demand more privacy and spend less time in neighbourhood interactions. On the contrary, the families with children demand larger flats. Very often, the housewives or the grandparents have to stay at homes to take care of the young children. With their children playing nearby, these families tend to generate more noise than the couples. Neighbourly interactions are generally more active because the housewives can spend more time at home. The sharing of the household experience in child caring and household work often strengthens the neighbour relationship and such leads to friendship development. The elderly, on the other hand, are very sociable, and they tend to spend most of their time at home because they are mostly retired.

As residents of similar social characteristics tend to live near and interact with neighbours like themselves, the localised grouping of residents with similar family structure in the
building blocks will facilitate the neighbourly interactions. In the high-density, high-rise condition in Hong Kong, the couples who demand more privacy can choose to live on upper floors. The families with children can choose to live in the middle portion of the building blocks with neighbourhood foci. The foci can be designed as children playgrounds, clothes drying areas, flower beds, mahjong areas or gathering places. The elderly, because of their accessibility problem, can live on the lowest floors with direct connection to the nearby open space where they can play chess, read, watch birds and chat. In view of the different user requirements, the types of communal spaces have to be diversified according to the family structures. Furthermore, the design diversification can give self identity to the building, which is also desirable in neighbourhood formation (Rivlin, 1987; Alterman, 1991; Kan, 1978).

4.4.3 Summary

Having reviewed the relationship between the intensity of neighbourly activities and the neighbourhood mix, the following findings can be summarised:

- **Heterogeneous mixing at community level** - The concentration of low income groups in the Mark resettlement estates resulted in housing segregation. The segregation created undesirable images of crime which in turn caused the wealthier people to leave. The out-migration of higher income residents, in turn, further intensified the housing segregation. On the contrary, the diversification of the socio-economic backgrounds of the residents in the same housing estates can reduce housing segregation problems, which in turn encourages long term community development.
• **Homogenous mixing at household level**- On the other hand, the localised grouping of the residents with similar family structure can facilitate their neighbourly interaction because most of the dwellers like to interact with the neighbours like themselves. The grouping of residents implies diversifying the public blocks designs to meet the needs of different users within the housing estate.

**4.5 Redevelopment and Neighbourliness**

The Hong Kong government realised that the lack of private household facilities in the Mark I and II blocks caused much dissatisfaction of the residents. The overcrowded condition also accelerated the deterioration of living quality. In 1969, the government proposed an extensive public housing redevelopment scheme. The Tai Hung Tung and Lei Cheung Uk Mark I resettlement estates were demolished and replaced by new public housing blocks. The affected residents were relocated to the newly constructed Pak Tin Mark IV resettlement estate which had better physical amenities. However, about 30% of the residents opposed the move. A survey was carried out to determine why the residents objected to the relocation (Hopkins, 1978). The residents replied that they were unwilling to move because of two reasons. First, they were afraid to be away from their jobs, friends and relatives. Second, they were afraid of the rental increase after the relocation. Therefore, they preferred to stay in the same housing estates, despite the insufficient amenities. In 1972, the government took another approach to improve the living quality of the old resettlement blocks by launching a pilot scheme to upgrade the Mark I blocks in Shek Kip Mei. There are two objectives of the scheme: first to convert all the flats in the Mark I blocks to self contained flats and; second to reduce the residential density. The Shek Kip Mei Mark I blocks were modified as follows.
Renovated Mark I resettlement block

k: kitchen
t: toilet

Figure 4.8 Typical layout of the renovated Mark I resettlement block
source: B.V. William "Redevelopment of Public Housing Estate"
in Housing in Hong Kong
• combining two flats into one flat of size 19.8m².
• converting the perimeter access balconies into private balconies.
• adding private kitchens and toilets in the flats.
• enlarging the end bay flats to 31.6m² to house large families.
• removing all the communal washrooms and toilets.
• converting the central cross pieces of the building into communal recreational spaces.

Originally, there were 256 flats housing over 1,260 residents in the Shek Kip Mei Mark I block. As the flats were combined, the number of flats dropped to 204 after the renovation. While most of the affected families could be rehoused back in the same housing estate after the renovation, some 50 families had to be relocated to other housing estates. Amongst the tenants who were re-allocated back to the renovated Mark resettlement blocks, 99% of them appreciated the improvement of the living conditions; and 95% of them were willing to pay a slightly higher rent for the improvement (Pryor, 1978).

In fact, the advantages of in-situ renovation of the old Mark resettlement blocks were multi-fold. First, the government spent less money. It was estimated that only HK$15.6 million were needed for the Shek Kip Mei Mark I renovation project. It would have cost HK$53.4 million for the complete redevelopment. Second, the renovation time was shorter. It took only 14 months to renovate the buildings and to rehouse the residents. It would have taken more than 6 years to redevelop the old housing blocks and to rehouse the affected residents at the same locality. Third, as most of the dwellers were rehoused in the same locality, their neighbourhood networks were less disrupted. Fourth, due to the low renovation cost, the rental increase was minimal. However, the disadvantage of the in-situ renovation was that it
could not free any land for deficient community facilities such as markets, shopping centres and estate schools. Nevertheless, the study of the dwellers’ reaction to the redevelopment process showed that most of the public housing considered that low rents and connection to their jobs, relatives, friends and neighbours were more important than spatial and amenities improvement.

With the economic boom and financial improvement in the 1970s and 1980s, the housing demand of the public housing dwellers had changed. In 1986, 80% of the Mark resettlement block dwellers said that they were willing to move to new town housing estates despite longer distances from jobs and the disruption of their social networks (Leung, 1986). The finding suggested that, with improved financial situation, the wealthier dwellers demanded better physical facilities in public housing. Without sufficient private and physical amenities, the wealthier residents could hardly develop their sense of pride, sense of attachment and sense of commitment to their neighbourhoods. Therefore, frequent upgrade, maintenance and renovation of the public housing blocks are essential in maintaining the sense of pride and the sense of attachment.

4.5.1 Summary

Having reviewed the relationship between the intensity of neighbourly activities and the resettlement, the following findings can be summarised:

- **In-situ upgrade instead of complete redevelopment**- The redevelopment of the Mark resettlement blocks often resulted in the relocation of residents, which, in turn, often broke the social networks of the residents. The in-situ renovation of the old Mark
resettlement block, on the other hand, preserved the neighbourhood network which was considered more desirable in terms of neighbourhood formation. However, with the improving financial situation of the dwellers in the 1990s, the wealthier residents were willing to move to the new towns for better physical amenities. The provision of better physical amenities became essential in maintaining the sense of attachment in the new housing blocks.

4.6 Residents Participation and Neighbourliness

As shown in section 3.3.3, there was a shift of emphasis on the community participation in the public housing policy in the 1990s. According to the Hong Kong Council of Social Services, the aim of the community participation and consultation programme was to raise the residents' consciousness and to encourage them to identify, express and act on their housing needs through collective participation. With more community participation, the residents would have more satisfaction with the living environment, stronger feeling of neighbourhood control, more positive neighbourhood relationship and less alienation in the community (Hong Kong Council of Social Services, 1984).

In fact, as shown in the development of the public housing in Hong Kong, there were three ways to encourage community participation in the public housing estates. These include self help, representative participation and home ownership (Yuen, 1977).

- **Self help participation**- Self help participation was one of the most prominent form of social activities in the Mark resettlement blocks to provide immediate assistance to the neighbours. Such assistance was provided by informal mutual aid groups, which mostly handled crisis related household issues such as taking care of the sick and elderly.
Through the self help participation, neighbours were personally bonded to the local residential groups. (Fung, 1982; Wong, 1995).

- **Representative Participation** - In the early 1990s, the government promoted the representative participation scheme (particularly in the Home Ownership Scheme housing). Local residents' representatives were selected and empowered to take part in the management of the housing estates. However, preliminary studies showed that the representative participation was ineffective in encouraging the neighbourhood formation because the majority of the residents were apathetic to take part in the management process. The apathy was most obvious in the low income groups because the low income people worked longer hours so they could not afford the time for the participation. In addition, the social involvement was not extensive. As the majority of the residents were alienated from the representative participation, the participation was unpopular in the housing estates. (Fung, 1982; Wong, 1995).

- **Home Ownership** - According to the Hong Kong Long Term Consultative Document (1997), home ownership can enhance neighbourhood formation.

  "It (home ownership) helps foster social stability and a sense of belonging. It is not surprising then that a large and increasing number of households in Hong Kong favour home ownership over other forms of tenure. They value independence, and control over their own homes. Flat owners know that, when their mortgages have been paid off, they will have the security of an asset that will help to maintain their standard of living."

  Hong Kong Government
  Homes for Hong Kong People- The Way Forward 1997

With the privatisation of public housing, the Hong Kong government hoped that home owners would take care of their properties for their benefit. As an incentive, home owners would be more active in community participation to safeguard their realty
assets. However, the effectiveness is yet to be studied because there is no empirical evidence in Hong Kong to verify the hypothesis. On the other hand, studies by Reigned and Roche found that the home ownership did not significantly improve the local community participation of the dwellers in the United States (Reigned, 1995; Roche, 1994).
Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 The Neighbourhood Formation Factors

The analysis and data collected in this study confirmed that the neighbourhood activities in the early Mark resettlement blocks were more active than in the recent Trident and Harmony blocks. Despite the overcrowded conditions, the early Mark resettlement blocks maintained a high level of social cohesion. At the household level, the dwellers knew each other and they often offered assistance to their neighbours in case of household problems. At the neighbourhood level, the informal local residents’ groups provided social supports such as child care to the residents in need. This type of personal social support greatly contributed to the social cohesion of the housing estates. In addition, the proximity of local jobs and friends also enhanced the sense of social attachment in the Mark resettlement blocks.

On the contrary, there was less active neighbourly contacts in the New Town and Harmony blocks. The residents in the new town housing estates often felt socially isolated although they have better household facilities such as private water supply, toilets and kitchens. At the household level, the dwellers knew little about their neighbours. They offered less support to their neighbours. In fact, in case of familial support, they often seek assistance from the nearby community centres, elderly centres or welfare offices instead of their neighbours. At the neighbourhood level, people spent less time talking to their neighbours in the open spaces, playgrounds and parks. This was reflected in the under use of these open spaces.
Having examined the neighbourhood conditions in the Mark resettlement blocks, the Trident blocks and the Harmony blocks, this thesis finds the following key neighbourhood factors in the public housing in Hong Kong:

(a) Provision of Communal Opportunities

- The provision of communal opportunities was essential in facilitating neighbourhood interaction. In the Mark I and II resettlement blocks, the forced sharing of household facilities provided the communal opportunities. In addition, the multiple use of external balconies as circulation and cooking places further facilitated the forced interaction amongst the residents.

- Despite the provision of the elderly centres, youth centres and parks in the Trident and Harmony blocks, the residents did not often use them. This was because they did not feel safe to use the spaces. To improve the sense of safety, communal spaces need to be “defensible”. These include the maintenance of visual surveillance on public spaces, the planning of low rise building, the planning of external balcony, and proper entrance control. The visual surveillance can also be enhanced by mixing commercial and recreational activities on ground floor so that the ground floor open spaces could be easily watched by residents and shop keepers.

(b) Compatibility of Background

- Social compatibility, such as family structures and socio-economic status, is essential in encouraging the development of neighbourly friendship. This is because people tend to interact with neighbours like themselves. Like the Mark resettlement blocks, the residents had similar household problems and common concerns about their living
environment. In the Trident and Harmony blocks, neighbourly interaction was weaker with weaker social compatibility. With little common concerns, diverse interests and diverse household needs, it was difficult to develop neighbourly friendship in the Trident and Harmony blocks.

- However, the homogenous concentration of low income people in the Mark resettlement blocks created notorious images of drug addicts, drug dealers and petty crimes. This in turn caused housing segregation and social “ghettorization” as the wealthier residents moved out of the resettlement blocks. This out migration further accentuated the housing segregation that threatened the sustainability of the neighbourhood. In this respect, mixing heterogeneous social groups at estate level is considered a better planning option; because the mixing encouraged inter-class understanding, uplifted the image of the housing estates and provided social pride to the low income people.

(c) Social Pride

- With the rising housing aspiration, the residents in Hong Kong are demanding housing with better physical facilities. These include larger flat, more household facilities and better recreational and community facilities. These physical facilities can uplift the image of the public housing, which in turn improve the social pride of individual. Consequently, the residential mobility [and therefore the housing segregation] can be reduced and the sense of belonging can be improved.
(d) Familiarity of Environment

- The maintenance of social linkage with friends, relatives and jobs is essential in providing a sense of security to the residents. It also reduce the sense of isolation as shown in the Harmony blocks. However, the social linkage can easily be disrupted during the housing redevelopment because the affected residents are often relocated to the distant housing estates.

(e) Residential Participation

- In the Mark resettlement blocks, the direct self-help nature of neighbourhood assistance was effective in establishing the neighbourhood and personal support network. Recently, the Harmony block residents are encouraged to take part in the management of their living environments. However, it is still unclear whether this scheme is effective in enhancing neighbourly contacts or not. More studies are required to determine the effectiveness.

5.2 Socially Responsive Design

Hong Kong is one of the most densely populated cities in the world. The large population of 6.2 million and the limited territorial area of 110,000 hectares resulted in the intensive use of land for residential purposes. High-density high-rise has become the dominant architectural form of public housing in Hong Kong. From the 1950s to the 1990s, the main public housing design criteria were to build fast and cheap. However, in order to develop socially sustainable housing environments, an alternative design strategy has to be adopted.

(1) Acknowledging the Inherent Social Values- The Hong Kong government must acknowledge the inherent social values of the old neighbourhoods in the Mark resettlement
blocks. While the redevelopment of the old public housing is beneficial (sometimes inevitable) to the whole city in its wider context, the preservation of local neighbourhood networks [which also preserves the sense of familiarity and security] is also important during the resettlement. The preservation of social networks can be achieved by (1) relocating the affected dwellers within the same locality or (2) by means of in-situ upgrading of the old resettlement blocks.

(2) Integrating Building Heights- As discussed in section 4.2, low rise public housing blocks are more desirable than high rise counterparts in encouraging neighbourhood formation. However, in view of the ecological and economic constraints in Hong Kong, drastic reduction of public housing building height seems to be impossible. An integrated mix of low rise and high rise public housing may be a possible compromised solution to balance the economic, ecological and social factors. There are merits in such planning. First, people who want more privacy can live in higher-rises. Second, there are more low rise public housing blocks specially designed for the elderly, disabled people and families who need closer linkage to the ground.

(3) Providing Pocket Open Spaces- The government must acknowledge that close-to-home pocket spaces are more effective in encouraging neighbourhood interactions than large centralised open parks. The revitalisation of the pocket open spaces becomes essential in creating communal opportunities. The inter-block pocket spaces can be revitalised by the re-introduction of retail shops, reading rooms and community centres on ground floor and
landscaped areas. With public visual surveillance, the residents will feel safe to use the spaces.

Alternatively, the pocket open spaces can be located at upper levels, with stairs or lifts connecting to the shopping mall, retail shops, parking, community offices and bus terminals on ground floor. This arrangement is known as the podium garden approach in Hong Kong. The disadvantage of such design in Hong Kong is the separation of retail and community activities from the pocket open spaces. Such separation, which is caused by the level difference, results in insufficient public visual surveillance on the podium floor. In addition, residents tend to bypass the podium with lifts and stairs without using the facilities on the podium floor. Consequently, few people use the podiums as communal spaces. In this respect, it is better to locate the communal open space at the same level as the retail shops and community facilities.

(4) Creating Upper Level Pocket Spaces- In high-rise public housing, pocket communal spaces such as sky lobbies can be planned on upper floors. In this approach, the lobbies must be planned in such a way that they are watched by the surrounding flats. They must also have direct access to the individual flats so that the communal space becomes forced gathering places for the residents. For example, the Mark I resettlement block layout provides a good layout for possible upper level pocket spaces. The centrally located community core can be converted into sky lobby that is assessable from all flats.
(5) **Residential Distribution** - The encouragement of dwellers to live near neighbours with similar family structures is essential to ensure social compatibility. With specific dwellers on each floor, the room sizes, room layouts and room facilities have to be adjusted or re-designed to fit the specific user groups. At housing estate level, the types of public housing have to be diversified to enhance social sustainability. The diversification also provides more housing options. For example, when a couple married, they can choose flats on upper floor of the housing blocks. This is because couples tend to demand more privacy and they normally do not want to be mixed with families with children. When the couples have children, they can choose to live on lower floor within the same housing estates. Thus, the social ties can be maintained after the move. When the couples get old, they can choose to live in low-rise elderly apartments that are specially designed to satisfy them. Throughout the life cycle, the residents can choose flats with neighbours like themselves in the same housing estate. In addition, the dwellers can always maintain social ties and social compatibility with their nearby neighbours.

At marco level, with diversified residential need, different types of public housing blocks are also needed in response to the regional demography in Hong Kong. For example, more elderly low rise public apartments are required in old districts like Shek Kip Mei.
Figure 5.1 Principles of socially responsive public housing design in Hong Kong
5.3 Directions For Further Research

(a) This thesis has discussed the development of public housing in Hong Kong and concluded that the high-rise Harmony blocks are not socially desirable. However, this study has only concentrated on the ‘micro’ level of the built environments of the Mark resettlement blocks, the Trident blocks and the Harmony blocks. If extensive socially responsive design strategy is adopted, further research can be conducted on the ‘macro’ level to investigate the social advantages and impacts on the whole society, such as employment and public transportation. This new housing approach may in turn affect the fiscal economic and political policy. For instance, how the new housing designs affect the construction costs and the financial situation of the Housing Authority? Will the modification slow down the public housing production rate? What building regulations need to be modified to facilitate the implementation of socially responsive design? How can the findings be applied to private sector housing?

(b) Although low-rise public housing blocks can encourage more social interactions than high-rise public housing blocks, low-rise housing blocks consume more land. Further investigations are needed to ascertain the feasibility of low-rise public housing in Hong Kong. These investigations may also include the impacts on land use, transportation and population distribution.

(c) As the population continues to increase in Hong Kong in the future, more high-rise public housing are expected. In the high-rise context, sky lobby may be a possible solution to provide close-to-home communal spaces in Hong Kong. Therefore detailed sociological
studies (for example, Siu Wo Court and Clague Garden in Hong Kong) are required to ascertain the impact of sky lobbies on residents’ behaviours. The findings can provide detailed data that can help architects and planners to design sky lobby in Hong Kong. They will also provide data to improve (or modify if necessary) the existing sky lobbies to suit the compact living context in Hong Kong.

(d) There are large greenery open spaces, such as parks and podium gardens, in the Trident and Harmony blocks. However, these greenery spaces are mostly too large for neighbourly interaction purpose. Further studies can be conducted to examine the possibility of revitalising these existing greenery spaces. Such may include the possibility to break down the large greenery spaces into small pocket spaces, re-route the paths to these open spaces and introduce commercial and community facilities along the greenery spaces.

(e) It must be acknowledged that the demography and family structure changes with time in Hong Kong. Further studies are needed to investigate the optimal proportion of couple, elderly and family housing in Hong Kong. The finding can provide data to planners to design balanced and socially sustainable public housing.

Winston Churchill once remarked that “we shape our buildings and afterwards our buildings shape us”. This statement strongly points out the fact that people play a vital role in creating their living environment. When people live together to form a neighbourhood, they also shape their neighbours. There is no doubt that good neighbours are essential to the well being of the dwellers. As a Chinese proverb saying “distant relatives are not as good as neighbours”, this simple statement explains the inherent value of a good neighbourhood in
Chinese culture. Despite the importance of good neighbourhood, the Hong Kong government has failed to provide good neighbourhood planning in the public housing estates. In fact, as shown in the Marks, Trident and Harmony blocks, the Hong Kong government had mostly focused on improving the physical quality of the public housing blocks. The social quality of public housing blocks was largely undermined. While the physical quality of living had been improved in the last three decades, the social quality of living has yet to be improved. In order to create good neighbourhoods in the public housing estates in Hong Kong, the Hong Kong government needs to review its public housing design and allocation policy.
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