

## Transformation within Territorial Control: A case study of Wah Fu Estate, Hong Kong

Tareef Hayat Khan<sup>1</sup> and Baharuddin<sup>2</sup>

<sup>1</sup>Department of Architecture, Faculty of Built Environment, Universiti Teknologi Malaysia (UTM), Malaysia,  
email: roopak23@gmail.com.

<sup>2</sup>Department of Architecture, Faculty of Engineering, Hasanuddin University (UNHAS), Makassar, Indonesia,  
email: b\_hamzah@ft.unhas.ac.id, baharsyah@yahoo.com

### ABSTRACT

Any commodity of human usage inherits the implicit human property of having a transforming life. Like human beings, they have wear and tear due to aging and usage, need to be well maintained, and are subject to transformation in order to cope with the external surroundings, and also to fulfill internal needs. However, these transformation actions do not have absolute freedom. Each activity is restricted by either explicit or implicit line of territorial control imposed by immediate authority, beyond which one does not have the authority to act upon. Considering residential built environment, where people inhabit, and which transform according to the needs of the inhabitants, the transformation actions are restricted to different levels of territorial control. In this article, a particular residential neighborhood is chosen, and the practice of territorial control is investigated on two levels, namely the individual building level, and individual housing unit level. Choosing Wah-Fu estate for the case study, which represents a typical residential built environment in Hong Kong (HK), the study exposes two basic human aspects through the study of transformation of built environment: people's need for change the surrounding environment, and people's yearn for practicing authority, and emphasizes how both are restricted with certain territorial control for the sake of greater benefit of collective habitation in a society.

*Keywords: Transformation, Territorial Control, Wah Fu estate, HK Public Housing*

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### 1. INTRODUCTION

This paper concentrates on two significant human behaviours through the study of housing. The first one is that people need to change their daily use commodities due to their changing biological, social, economic, and cultural needs. For housing it is limited to changes in the configuration of spaces they use. The second one is on top of the first one, which implies that even the basic needs are fulfilled, they want to put some imprints through certain actions over the environment they inhabit, and over the people they are surrounded in order to establish control,

which gives one the meaning of existence. These two phenomena drive individuals towards certain patterns of actions. The changes one make in their houses in the form of construction works, demolition works, and alteration works, are put under one umbrella definition of 'transformation' in this paper.

However, spontaneous transformation is restricted by agents who impose boundaries on individuals while they try to transform. Considering transformation as a universal and natural human phenomenon, to act inside the designated territorial control is also significant

for peaceful cohabitation. This paper tries to highlight the significance of deciding the degree of control with sympathetic justification, so that individuals can act spontaneously even within the framework of control.

## **2. TRANSFORMATION AND TERRITORIAL CONTROL**

Human nature to cope with the continuously transforming life can be expressed through a number of activities such as changing food habit, clothing style, cultural expressions, family behaviours, social attachments and so on. Concentrating on the actions related to housing, we focus only on the actions on transformations happening in individual houses throughout their total period of inhabitation. The action of transformation takes care of a series of actions throughout one's entire life, rather than an action of a given moment. Moreover studying transformation of a group of people therefore has the probability to take care of all major details of this particular action in human life.

However, as Habraken [1] explains, these transformation actions cannot go unrestricted for the reasons of peaceful cohabitation of people inside a community. There are authorities who assign certain restriction on the actions of a particular individual or a particular group. For example, a child cannot do whatever it likes, as parents set a restriction on its actions in order to run the family through a system for the benefit of all the members. Again, the parents themselves as member of the community cannot do anything they want in the society, as the community poses some control on their actions in order to run the

community smoothly. The communities themselves are liable to the district or other upper level bodies, and thus the hierarchy moves on, in order to have maximum people benefited for the sake of peaceful co-habitation. In the first case, the parents are the authority to decide the rules, the community is the authority for the next one and so forth. Territorial control is thus a very important notion in human life.

Degree of territorial control is different for different authorities, actors, and actions. In transformation of housing for our particular context, which is a typical public housing estate in HK, we define transformation action as construction, demolition, or alteration of walls, renovation and articulation works. The levels of territorial control are engaged on the following three levels:

- Building Level: Actions to transform the three dimensional spaces involving more than one housing units, such as adding two or more units together, shrinking down to one unit from more etc.
- Housing Unit Level: Actions affecting the three dimensional spaces of one single housing unit such as changing the layout, adding or demolishing existing structures to alter the indoor space etc.

Micro level: Actions affecting mainly the two dimensional surfaces such as face lifting or renovation of walls, renovation of service facilities etc. which do not affect the three dimensional spaces.

### 3. CONTEXT

#### A. Housing in Hong Kong

The pattern of residential development in Hong Kong today is the cumulative result of historical forces which began to exert their influence almost from the time when the territory came under British jurisdiction in 1841. From this time on Hong Kong struggled to provide homes to its people over 160 years. Over the past four decades, there has been notably improvement in the field of housing. From 1953 the government of Hong Kong has recognized the need of providing subsidized housing from public financial housing [2]. However, according to Jia [3] the Hong Kong government made the half-hearted efforts during 1954-1972. He states that in 1954 the government established Resettlement Department to provide emergency housing for fire victims and squatter clearance. This initial resettlement estate provides low standard i.e. 2.2 m<sup>2</sup> for adult and 1.1 m<sup>2</sup> for child.

Because of the limitation of land and the increasing of population, housing will remain a big problem for the Hong Kong government. The population of Hong Kong has been growing rapidly since 1945, after World War II. Pryor [2] made a projection showing an estimated 7 million population by the turn of the last century, which had happened indeed.

#### B. Public Housing Estates

Public housing in Hong Kong was started after the devastating fire in Shek Kip Mei on Christmas Day of 1953 which left 53,000 people

homeless overnight. This situation was exacerbated by a series of squatter fires continued from December 1953 to December 1954. These resulted in 100,000 people to become homeless. A rapid response was required to cope with this serious housing situation [4]. In order to response this situation the government established Hong Kong Housing Authority in 1954. From December 1953 until today, public housing has gone through several critical phase of progressive change, notably in 1972 and 1987, when the Ten-year Housing programme and the Long Term Housing strategy were launched, respectively. The layout pattern and the built form of five decades of public housing in Hong Kong can be seen in Figure 1. However, in this study we focus on a housing estate which basically belongs to the earlier phase, but is the first example when a housing estate represented a truly independent town instead of just a shelter for mass people.

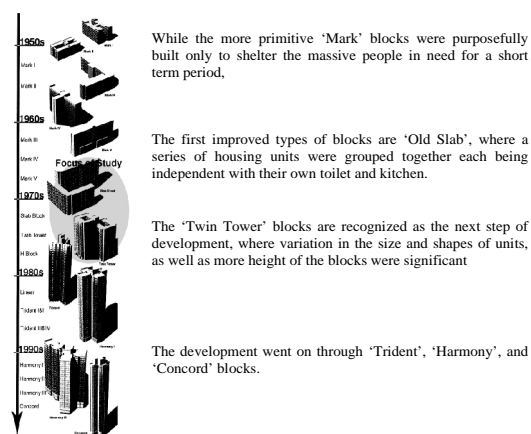


Figure 1. Chronological development in the morphology of Public Housing estates in HK



Figure 2. Location of Wah Fu estate (I and II) with respect to HK (source: Google)

### C. Wah Fu estate

Wah Fu estate is located between Aberdeen and Pokfulam as can be seen in the Figure 2. The architect of Wah Fu estate was Mr Donald Liao [5]. Liao has made a lot of contribution to the design and to the construction process of this estate. This estate was constructed in five phases. Phase I – IV was built from 1966 to 1971, phase V that consists of two twin blocks was completed in 1978. Wah Fu estate consists of two sections i.e. Wah Fu I and Wah Fu II. The general description of these estates can be seen the Table 1.

#### a) Profession of the inhabitants

Since there is relationship between the eligibility of renting these houses and the total household income, generally these housing estates provide the lower income people of Hong Kong (see Table 2). The major professions of the inhabitants are construction worker, Fisherman, Factory worker, Restaurant worker, Temporary jobs like technicians, municipality workers etc.

Table 1. General description of Wah Fu estate

Descriptions	Wah Fu I Estate [6]	Wah Fu II Estate [7]
Type of estate	Public Rental Housing	Public Rental Housing
Year of intake	1967	1970
Type of Blocks	Old slab	Twin Tower
No. of Blocks	12	6
Name of Blocks	Wah Ching House Wah Chun House Wah Hong House Wah Kee House Wah Kin House Wah Kwong House Wah Lok House Wah Mei House Wah Ming House Wah On House Wah Shun House Wah Yu House	Wah Cheong House Wah Chui House Wah Hing House Wah King House Wah Sang House Wah Tai House
No. of Rental Flats	4,796	4,346
Flat Size (m <sup>2</sup> )	26.9-36.5	33.1-39.9
No. of Households	4,700	4,300
Authorized Population	15,000	16,000

#### b) Heterogeneous group of inhabitants

There are different eligibility criteria for young (single) people, nuclear family and elderly people and also family with elderly people, which develops a heterogeneous pattern of families living here. The major change from the past is that the change is the standard allocation

spaces, which were originally  $3.5 \text{ m}^2/\text{P}$ , is now  $7.5 \text{ m}^2/\text{P}$  (P = person). It implies that previously 6P flat must had 6 people even though everyone might not be from one family, but now flats are allocated with nuclear family only with the option of addition of very close relatives only.

Table 2. Eligibility criteria for allocation of flats [8]

No. of Household member	Maximum Household income (HK\$)	Maximum Total asset (HK\$)
1	6600	170000
2	10100	230000
3	11900	300000
4	14300	350000
5	16100	390000
6	17600	420000
7	19100	450000
8	20300	470000
9	21800	520000
10	23100	560000

#### c) Population Mobility

Three or four Households per each month per block move out and move in [8 & 9]. The major reasons behind leaving is buying House in the HOS scheme, going abroad, buy private apartments. The relative mobility is considered to be very slow, which signifies stability of the population. There is no rule how long one can stay. So a family can stay the whole life here. The effect is evident when we see a number of elderly who moved in long time ago and later on the family members grew older and moved out, but they remained there.

The inhabitants are mainly from HK Island. Initially a good number of local fishermen were among the first allottees. The rate of rent changed many times during the lifetime of the estate, but it always remained within the

reach of the target group of people. That is because the heavily subsidized rate of rent.

#### d) Maintenance Issues:

There is not much complain about the living environment, which is actually very beautiful and it has proven it along time. The outdoor spaces are really in good proportion and the inhabitants have plenty to enjoy everyday all through their life. It is indeed a town self-contained by itself. There are minor issues regarding maintenance of amenities such as spilling repair, water seepage from toilet, wall tiles repair, choking of drainage etc., which are handled by the local estate office.

EMAC (Estate Management Advisory Committee) is the official organization to take care of different social problems associated with the community and for each house there is MAC (Mutual Advisory committee), whose chairman is selected from the inhabitants from that block and who serves voluntarily.

#### 4. METHODOLOGY OF STUDY

Literature review has been done in order to get the general overview and historical data of housing in Hong Kong, Public Housing in Hong Kong, and the Wah Fu estate.

In order to get the basic idea of public housing development in Hong Kong, interviews were conducted with the senior architect Ms Rosman Wai of Hong Kong Housing Authority [10] at the Headquarters of Hong Kong Housing Authority at Ho Man Tin and with Wah Fu estate management officers [8 & 9].



Figure 3. Typical Floor plan of Wah Fu I estate

Several site visits have been done in order to collect more detail data about the housing blocks, structures, room spaces, materials, etc., especially on the process involved when people need to transform their flats.

## 5. RESULTS AND ANALYSIS

### A. Building level

#### a) Plan of Old slab and Twin Towers

The old slab building blocks were themselves regarded as a step forward from the Mark blocks. The major improvement is seen in different aspects such as individual toilets and kitchens for each unit, the different sizes (shape was more or less same), of units provided various options for different family size (6P, 7P, 8P, 9P, 10P etc.), the possibility to add up units for still bigger families (Shear wall had holes for door space temporarily blocked by brick wall), combination of single and double loaded corridors. The maximum corridor length and minimum width followed the fire escape rules. The old slab provides three option flat i.e. 6P, 7P, and 8P (Figure 3).

The twin towers are the next generation of public housing blocks (Figure 4). Since the technology provided higher buildings and housing regulations allowed high-rises, the

concept of twin towers emerged as a better solution for providing more houses. The major improvements are the concentrated core areas at the junction of the twin towers providing common circulation for both the blocks, the shape and size of the units were now fixed and no alteration can be done (like joining two or more together), the inner court provides ventilation and light in the corridors.

#### b) Circulations Spaces: Corridor, Lifts and staircases, Connections

The circulation spaces remained same as it was after all these years except for the poor quality of maintenance mainly in the form of water seepage. Inadequate lighting is also a problem. These can be seen in Figure 5.

So we find that Wah Fu I is more relaxed than the other in order to provide freedom at the building level. The demographic change in the family can be coped with the increase in space, and redistribution with relaxed options. However, the common spaces in either type of housings are not well-maintained by the authority. Inhabitants do not have the power to touch them, and thus those places remain at some level discomfort from the inhabitants' point of view.



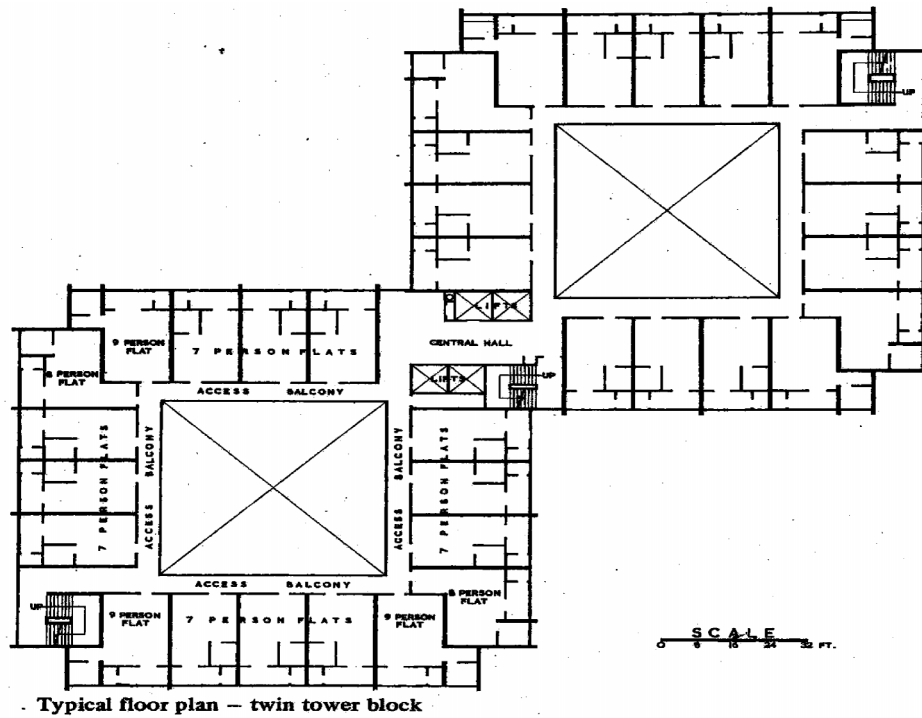


Figure 4. Twin Tower Block (Wah Fu II) [11]



Figure 5. Circulation spaces a) Lift lobby b) dark double loaded corridor, and c) bright single loaded corridor

### B. Housing Unit level

- a) Different types of units: Wah Fu I: 6P, 7P, 8P, and Wah Fu II 7P, 8P, 9P

The rooms have remained same but currently less number of people inhabit due to the increase in space/person (previously 3.3 m<sup>2</sup>/P, now 7.5 m<sup>2</sup>/P). Typical rooms of flat in Wah Fu I can be seen in Figure 6.



Figure 6. Typical Rooms of Wah Fu I estate a) view of balcony from multi-purpose room, b) kitchen, c), and toilet

- b) Internal Changes: Regulations

There is no partition wall provided. If the inhabitants want, they can do this by themselves, but the rule is that they must leave the house as was, and the partition walls should not reach the ceiling in order to make sure lighting and ventilation is available everywhere inside the house.

There is also no door provided for the kitchen, but dwellers can add that too, but on the same condition that return it as was.

- c) Changes in the Balconies

The balconies provide additional spaces for the units. There are variations showed by the users. Some keep it as open balconies, some close it with window panels and treat as a room, some use it for storage spaces (Figure 7).

We have found different variations in the layout in the same type of unit. Even, one single unit might have transformed several times in order to cope with their demographic, economic and social needs. The concept of open space at the point of delivery is actually useful for inhabitants to transform in when necessary.

We can also find enough freedom for inhabitants in transforming the balconies when need occurred. However, though people do not have the authority to change the elevation, still the variety of balconies provide an expression of life continuum inside (Figure 8).

### C. Micro level

- a) Change in the Front Door

These changes in the micro level distinguish one inhabitant with other. The treatment of curtains, the offerings beside the doors, and the treatment of the extra security door varies from one unit to other (Figure 9a and 9b).

(Brick), External Façade (Tiles and Paint), Doors (Wood), Roof (Waterproof Tiles). See Figure 9c for details.





Figure 7. Changes in balconies: a) without glazing, b) utility space, c) & d) as additional rooms.

## b) Materials

The construction materials are: Shear wall (Concrete), Internal main partition wall Though they are within the control of the authority, we can still find some sort of freedom in the front door area. However, the people do not have the authority to change the material of the front wall or the pavement in order to give one's own house some unique look.



Figure 8. View of façade with typical balconies

## 6. CONCLUSION

Overall, the housing situation was always tight in HK because of huge population and lack of space to build. The study suggests that the public authority has still provided the target group of people enough to be satisfied with. But in addition, it has imposed strict territorial

control on these inhabitants. However, any built form whatever efficiently solved for a particular day in time cannot go untransformed throughout the whole life of the inhabitants. This is true for even with the strictest of controls. That is why when we find these inhabitants continuing to transform, we get the reflection of the same notion. In this kind of mass housing, there is little the inhabitants can do to exercise that power and it is restricted only to very limited number of actions. But still the way they act reflects the perennial struggle between spontaneous transform and territorial control. In this particular case, we find that territorial control was relax to a certain level to allow the inhabitants practice transformation quite spontaneously.

Urban housing is a storehouse of (previous) experiments in living, in particular, in creating environments to live in [3]. The study of transformation in this context has clearly showed the aspect of a 'live' environment. The actual essence of the study lies on the fact that we need to deeply study the actions of transformations in order to come up with a meaningful set of rules regarding territorial control.



Figure 9. Change in front doors a) the time of delivery b) modified with curtains and altar. Materials outside the front door c) wall: small tiles, and floor: neat cement

The whole environment is meant to be built for, and benefit inhabitants, and do that through their lifetime. When exercised, these spontaneous actions might change the whole physical complexity of the initial impression of the built form after a certain period of time, but that kind of evolution is the essence of human life. Sympathetic territorial control will be there to support them and guide them through their lives in a spontaneous way.

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