A PARTICIPATORY AND INCREMENTAL APPROACH
TO IMPROVING THE OLD-CITY IN TAIPEI

by

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1977

Submitted in Partial Fulfillment
of the requirements for the
Degree of
Master of Architecture in Advanced Studies
at the
Massachusetts Institute of Technology
June 1980

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ABSTRACT

This thesis tries to establish a long-term upgrading model for improving the Old-City's environment in Taipei. The thesis makes a case study of the Liu-Hsiang project which has been the object of a three year effort by the municipality to devise a renewal program in the Old-City. Furthermore, interviews were carried out with four different interest groups -- the municipal government, residents, private developers, and university-based specialists -- to grasp their different points of view in upgrading.

"Participation" in this thesis means not merely "citizen participation", but the involvement of each interest group in the process of upgrading. This basic concept of participation is used in the new proposal, in comparison of alternatives, project evaluation, and even in implementation. "Increment" means piecemeal growth in the upgrading process.

The significance and process of pre-implementation testing should be noted. The thesis recommends that this process be followed as the next step.
ACKNOWLEDGEMENTS

I owe a great debt of gratitude to many people for their encouragement and help with this thesis.

Professors Tunney Lee, Philip Herr, and Lisa Peattie, my thesis advisors, provided both a challenge and generous help. Their willingness to be always available has been very important to me. I feel the deepest gratitude to them.

I also wish to thank Sandra Howell for her useful advice in the beginning of my work. Edward Popko and Lloyd Rodwin also gave encouragement at the beginning of the project. Reinhard Goethert's comments part of the thesis are also appreciated.

For data collecting, I own thanks to all officials in the City Planning Department of the Taipei municipality who gave me a lot of practical assistance in the case study during the summer of 1979. I particularly want to thank Ho Fang-tzu (何芳子), a kind and enthusiastic lady who in sharing her practical experience in urban renewal gave me a great deal of help. To the many scholars and specialists whom I interviewed, I would like to express my appreciation for their valued contributions. I also want to thank the residents of the Liu-Hsiang Area for their cooperation and opinions.

I would like express my appreciation to my good friends and old classmates in Taiwan. I should especially thank P'an Chia-ch'eng (潘家成), who not only contributed his efforts to my interview work, but also at a critical time, took charge of my wedding celebrations. To Mi Fu-kuo (米復國) and our other team-members I would like to extend my thanks for spiritual support and intellectual concern. I also thank Hung Yung-hsin (洪永信), Tsai Szu-ch'eng (蔡思程), my junior school-mates, for their assistance in mapping and providing work places.
There are many friends in Cambridge to whom I would like to extend my thanks for their help and encouragement. Particularly, I am grateful to Lin Shaw-hui (林少華), for his useful suggestions and deep insights. To Fang Kuang-yu (方光嶸), for his constant concern and advice in these two years' study. To Wang Ming-hung (王明樺), who helped me define the topic. To Hua Chang-i (華昌宜), who helped me develop a test model for this thesis. To those who participated in the simulation meeting, I also want to express my appreciation. It was impossible to finish this thesis without the help of Paul Clark who carefully and exhaustively corrected my English writing. I am deeply grateful to him.

Finally, I should like to express my sincere thanks to my parents and to my wife Li-Fen. Without their support and love, this could never have been done. To them I can only say "With all my love!"

Chang, Chin-Oh 張金鴻
Cambridge, Mass.
June, 1980
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Chapter 1

INTRODUCTION

I. Background

Three years ago, in 1977, I spent one year for my bachelor's thesis project studying an urban renewal proposal for the Ta-Ch'iao Area, as part of research on a renewal model for the Old-City of Taipei. In the thesis I applied urban renewal methods to improve the environment of the Old-City. The approach to urban renewal which I followed in the research was similar to that of the city government.

The Old-City is the original area of Taipei, developed along the river. The basic characteristics of the physical environment are: high-density settlement and low-income population, mixed land use, narrow streets, low, row houses, and a lot of illegally expanded housing. However, the social structure of the neighborhoods in the Old-City is very strong, because the residents have lived there for a long time. The strong concept of neighborhood is also due to the human scale environment, characterized by low houses, narrow streets, etc. Neighborhood solidarity is also due in part to the similarity of backgrounds of residents, most whom have low-incomes, low educational...
levels, and similar occupations. Therefore familiarity with each other is easier. This is reflected in the high degree of participation in local elections and local religious activities.

After one year of the 1977 study and feedback since then, I now wonder how effective such urban renewal is for the Old-City. It seems it will cause a lot of problems, and will not succeed. For instance:

. It would destroy this good neighborhood structure.
. How would one deal with those residents? How could they afford to live there?
. How would one deal with the problem of private land? (Land is owned by various owners.)
. How would one re-establish the new environment?
. Could it really be better than before?
. And the biggest problem: how could the government get funding on the scale necessary to carry out renewal of the large area covered by the Old-City?

I think these problems of implementation are the reason why many proposals have remained just "proposals".

II. Purpose and Scope of the Thesis

The thesis is intended to provide a better approach to improving the environment of the Old-City. It attempts to address the following
questions:
1. What are the goals, and resources for long-term upgrading in the Old-City?
2. What is the "key problem" in the improvement of the Old-City?
3. What roles the government, residents, private developers, and specialists should play in the upgrading process?
4. Can the residents as a group improve their environment by themselves?
5. At the implementation level, who can be involved in the improvement of the environment of the Old-City, and how can they participate?

The task of this thesis is to establish a model for improving the environment of the Old-City in Taipei. I will take the position of the university-based group and help the government to establish a long-term upgrading program which can assist the Old-City's residents to improve their environment.

The key word in this thesis is "participation". Here, it means that every interest group can be involved in the process of upgrading. It not only indicates citizen participation, because the underlying assumption is that different interest groups have different points of view. The involvement of every interest group will help provide a satisfactory environment.
III. Research Method

A case study of the Liu-Hsiang Area is the basic method of research. The Liu-Hsiang Area has been the object of a three year effort by the city government to devise a renewal program in the Old-City. (For details, see Ch. 3)

In the summer of 1979, when I went back Taiwan for preparation of this thesis, I applied to enter the City Planning Department in the municipal government. For almost three months, I studied at the city offices in the mornings, trying to grasp the attitude of the government towards the upgrading of the Old-City. In the afternoons, I went over the site -- Liu-Hsiang, for observation, taking photographs and notes, and talking with residents. I tried to gain an understanding of the Old-City's living environment, activities and behavior. In the evenings, I spent most of the time in interviewing residents, experts, professors, and private developers. I tried to grasp the attitude of these interest groups towards the upgrading of the Old-City. The following diagram presents a summary of the interview structure. (For details, see Appendix 1.)

IV. Organization of the Thesis

Chapter 2 and 3 of this thesis provide an introduction to the urban background and to the existing Liu-Hsiang Renewal Project. Chapter 4 uses the goals of long-term upgrading to define the problems
in the case of Liu-Hsiang. Then, based on the goals and problem-setting, some basic concepts for upgrading in the Old-City are established in Chapter 5. In Chapter 6, a proposal for redevelopment in the case of Liu-Hsiang is presented to accomplish these concepts of upgrading. This is the central part of the thesis. In Chapter 7, in order to assess which of the alternative methods for upgrading is appropriate a comparison of the methods is made from the different points of view of each interest group. This comparison does not only apply to this special case, but is also relevant to other cases in the planning field. The last chapter establishes the process and method for pre-implementation, and uses the same method as Chapter 7.
to measure the possibilities of success or failure of the project. I consider this stage is of considerable importance for every project before it is implemented. However, a lot of groups involved in implementation tend to neglect such a stage. The recommendation at the end of the thesis, is to follow the method for implementation outlined in Chapter 8.
Chapter 2

URBAN CONTEXT

I. Taipei City

1. History:
   Taipei was made a prefecture in 1885, under the Ch'ing Dynasty, when an area of 441 hectares were laid out as its administrative district. Taipei was made a provincial city in 1945, when Taiwan was returned to the Republic of China from Japanese occupation. In 1967, Taipei became a special municipality and the city area was expanded to 27,214 hectares. At present, Taipei is the political, cultural, and economic center of the Republic of China.

2. Population:
   The population of Taipei in 1976 was 2,089,288. The average density was 76.8 persons per hectare. However, over half of the land area are rivers and hills which cannot be developed. Therefore, in reality the population density in Taipei is excessively high.

3. Government:
   The city is divided into 16 districts, and each district into li (neighborhood) which is the basic administrative units.
Neighborhood meetings are held on the 14 level every six months and are sponsored by the district government to provide a channel of communication between government and local residents.

4. Socio-economic Structure:
In 1976, there were 480,000 households with an average size of 4.35 persons. The annual income per household in 1976 was NT$167,079 (US$4,397). Approximately 60% of households had incomes below this average.

5. Housing:
Housing with a floor area under 60 sq meters is considered to be affordable by average-income families. In 1975, 40% of total housing stock in Taipei was of this type. But when compared with the number of below-average-income families (60%), the housing stock is insufficient. Only half of the below-average-income group owned their house. It has been estimated that 35,151 units per year are needed to meet the increase of the population, the rising living standard and the demand to own a house.

II. The Old-City in Taipei

1. History:
The Old-City is the early historic area of Taipei which was developed along the Tan-Sui River. In general, the river and north-south railroad are the boundaries of the Old-City. (See map below) But there is no clearly defined area for the Old-City.
2. Population:

The population density of the Old-City is about 450 persons per hectare, which is much higher compared with that of the rest of Taipei (100 persons per hectare). However, the increase of population in the Old-City, from 1966 to 1976, was negative (-20%). In recent years, the population has been decreasing at a faster rate.

3. Land Use:

The existing land use of the Old-City is complicated by the mixed-use of commercial, industrial, and residential areas. The central business district of Taipei is located in the central part of the Old-City. However, outside this district, land values in the Old-City are very low. This is clearly reflected in the decay of urban quality in the Old-City.

4. Transportation:

Since the transportation network was built in 1920's without planning, the city blocks in this area are narrow and disorderly. In 1973, the city government drew up a detailed plan for Taipei City which established guidelines for the development of the Old-City.

5. Floor Area Use:

In the Old-City, the average building height is very low, and the degree of F.A.R. is still under fifty percent of the saturation level. However, the level of building coverage is very high, at almost one hundred percent. Moreover, there are a lot of illegal buildings which have been illegally expanded. In short, there is not enough floor area for the inhabitants of the Old-City, a situation made worse by inefficient floor area use.
6. Public Facilities:

In the Old-City, there is an adequate distribution of markets, primary schools, and utilities. However, there is a lack of open spaces, parks, and neighborhood centers.

III. The Liu-Hsiang Area

1. Location:

Liu-Hsiang is located in the south-western part of the Old-City. There are two important transportation routes adjacent to the site. One is the Hua-Chang Bridge, one of three bridge across the Tan-Sui River, which connects the western part of the Taipei basin with Taipei City. The second route is the South Huan-Ho Road, which is a major part of the outer ring road of Taipei City.

2. Site:

The area of Liu-Hsiang is 3.9 hectares (9.71 acres). The population in 1976 was 5,854 persons, in 1,017 households, averaging 5.75 persons each. Population density was 1,322 persons per hectare.

3. Land Use:

In Liu-Hsiang 69.2% of the area is residential, 6.1% is commercial, 8% is mixed-use (residential, commercial, and industrial), and 16.5% is streets. Apart from the latter, 84% of the land is privately owned and 16% is in public hands. In 1976 the municipal
government announced the land value in Liu-Hsiang at NT$269,031,047 (about US$7.5 million).

4. Tenure:
In this area, 68% of the residents are owners, 27% of residents pay rent, and 5% of the residents are illegal occupants. However, types of tenure in the Old-City are very complicated, including seven categories: ownership of land and house; ownership of land but illegal housing; ownership of land only; ownership of house only; illegal house but recorded by the government; illegal house without record; and rental house or land.

5. Housing:
Almost all housing is one or two story row houses, the floor area ratio is 1.55, and building coverage is almost 100 percent. 34.8% of the buildings are in brick, 34.7% is reinforced brick, 16.9% is R.C., and 13.2% is wood. The average floor area per unit is 49 m² (530 ft²), or 8.54 m² (93 ft²) per person.

6. Social Conditions:
Most owners have been living in Liu-Hsiang for more than ten years, and renters less than five years. In general, the education of the most residents is not higher than primary school level. The level of crime is higher than in other areas of Taipei.

7. Economic Conditions:
According to a government survey in 1976, the average annual income per household is NT$139,920 (US$3,682). The incomes of 52.8% of the residents comes from salaries, while 40.8% of the
residents derive their incomes from business profits. For the most part, the residents have no savings.
Primary Information

Area 27,214 Ha.
Population 2,089,288
Population density 76.8 persons/ha.
No. of households 480,000
Family size 4.35 persons
Average annual income NT$167,079
US$4,397
Primary Information

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(For details, see Appendix 2)
Notes to Chapter 2

Sources on the urban context:


Chapter 3

THE URBAN RENEWAL PROJECT FOR
THE LIU-HSIANG AREA

I. Goals and Program of the City Government Renewal Project

Two documents outline the government's goals for the urban renewal program. One is the Taipei city mayor's declaration on urban renewal. "Urban Renewal" plays a very important part in the process of urban development.

Taipei is a city with more than three hundred years of history. Recent heavy concentration of population, rapid changes in the business structure, and a continuous rise in the living standard resulted in parts of the earlier developed areas of Taipei City becoming dilapidated and incapable of meeting the requirements of the city's development. Therefore, drawing up extensive urban renewal projects through the comprehensive plan of Taipei City to reconstruct unpleasant surroundings and public facilities and rehabilitate and conserve the old buildings systematically are very necessary.

Urban renewal has been practiced for many years in some developed countries already. Taipei City has just crossed the threshold of the first period of urban renewal. By improving the residential qualities of every decayed part of the city, promoting land use value, expanding city functions and beautifying the city's appearance, the overall development of the city will become better and to implement urban renewal has become one of the most important subjects in the city development policy.

Since the task of renewing involves a wide range of fields, the success of city renewal would rely on close coordination of every related field authority and strong support and cooperation from local citizens.
The other document sets out concretely urban renewal goals held by the Department City Planning in the city government.

The urban renewal program is not only a work of physical renewal but also a social and comprehensive reconstruction. The major goals of the implementation of urban renewal in Taipei City are:

(1) To Improve Residential Qualities
   a. Pull down dilapidated buildings and reconstruct solid, attractive and functional buildings.
   b. Eliminate the buildings with undesirable conditions and offer healthy, safe and comfortable residential environments which will be well ventilated with natural illumination, and attractive.
   c. Eliminate narrow, winding and shabby streets and construct a modern, safe and convenient street system.
   d. Improve service standards of public facilities and provide enough parks, play grounds and prosperous and neighborly communities possible.

(2) Promote Efficient Land Use
   a. Decrease the building cover ratio in order to gain more open spaces and eliminate overcrowding and unreasonable land use.
   b. Implement floor area ratio control in order to improve the economic profit of land.
   c. Develop preserved lands for public facilities with multiple purposes in order to fulfill the lands potential and to make them the activity centers of communities.

(3) Fulfill the Requirement of Inhabitants
   a. Arrange different styles of compound units of buildings to satisfy the inhabitants with different backgrounds and income levels.
   b. Resolve the settlement problems of mid- and low-income citizens in accordance with government loan policies.
   c. Settle all original inhabitants after the completion of renewal program in order to achieve the ideal of "House to the inhabitant".

As seen in his declaration, the Mayor emphasizes two aims in urban renewal. One is improving the physical environment, by upgrading residential qualities and beautifying the city's appearance. The second aim is to improve the economic environment by promoting land use value, and expanding city function.
Furthermore, the City Planning Department's goals for urban renewal outline the methods of improvement. These consist largely of "negative actions", that is the pulling down and elimination of unwanted structures by government action.

The city government's program for urban renewal in Liu-Hsiang calls for the conserving of 12 four-floor buildings on the rest of the site. The plan sets out different types of building composition and aims to build about 1,300 units to settle the original residents. At the same time, reconstruction will include parks, and a market with multiple-functions to offer spaces for public facilities, such as a day-care center, a meeting hall, an activity center and so on. (See map below.)
This City Government renewal program also includes seven sub-plans, covering land use, housing, levying of land and buildings, distribution and management, relocation, finance, and implementation. The total budget is NT$1,000,000,000 (US$ 30 million). One quarter of this sum will be used for subsidies and public facilities and will produce no return to the government.

II. Process and Results of the Project

This project was started in June 1976, when, according to the City Mayor's renewal policy instructions, the Administrative District office was asked to report, after a thorough survey, and exchange of opinions with heads of the neighborhood. As a result this area was chosen to be an urban renewal project. The Liu-Hsiang project was laid out after many discussions and meetings with specialists, local officers, and residents.

There were three stages of evolution in this case. (See following map.)

1st stage: 1976 - 77. renewal area --6.2 ha.

Some residents of the area, including practically all those living in the western sector, opposed the renewal program, because they felt that their physical environment was not bad.
2nd stage: 1977 - 79. renewal area -- 3.9 ha.

The government modified the renewal area, eliminating the western sector, and held a physical design competition to choose the best design as the basic idea for implementation. Within this period, the government also held many explanatory meetings with residents, and conducted three residents' opinion surveys. The last survey in the summer of 1979 in which I had an opportunity to participate was another turning point. It found that over half (59%) of the residents were against this renewal program.

3rd stage*: 1979 till now (1980). renewal area -- 1.3 ha.

In the light of residents' opposition, the government could not but re-modify the renewal area. In the new, much smaller, area there is only one big private land owner and public land. The government hopes to use this small area to gain the confidence of the residents of Liu-Hsiang.

Map of Changing Renewal Area

Final Decision of the City Government
III. The Attitude of the Government

Despite the progressive reduction of the area for renewal, the process of interaction which these three stages represent is encouraging. The final decision seems also reasonable. From this process it can be seen that, generally speaking, the city government can accept the opinions of the majority of residents. The problem seems to be that the government finds it difficult to really grasp the reasons for the residents' opposition. Communication between the two sides is not easy. Despite the amount of effort and time the government has spent in seeking the residents' cooperation, fifty-nine percent of the residents still oppose the renewal program.

The government has tried to reduce the risks by reducing the renewal area. But the fundamental issue is not the size of the area or numbers of residents involved. The fundamental issue is the method of urban renewal. The government believes that its way of urban renewal is the only method for improving the Old-City. This renewal action must be done totally by the municipal government. The government takes too much responsibility with its limited resources. These resources have not been sufficient to provide good communication with the residents effected by the urban renewal program.

IV. The Reaction of the Residents

In the beginning, a large proportion of the residents did not understand the program for urban renewal. However, everyone could
realize that the government wanted to take their land and buildings at prices much lower than the market value. They also realized that the government wanted to pull down their houses. Not understanding the government renewal program, the residents did not know how to calculate their costs and benefits under it. The presentation of this program was not thought out clearly. Words, formulas, and regulations, which need a careful reading to be understood, were presented to the residents, most of whom have low educational levels, and some of whom are illiterate. Therefore, the residents found it difficult to formulate strong reasons for their opposition. The government, however, thought that the residents were being unreasonable, and that the renewal should be pushed through.

Within the neighborhoods themselves, everything was confused, and a lot of residents misunderstood. Basically, three groups appeared: a strong opposition group, a supporting group, and the majority who could follow either side. In general, only the opposition group had active, though informal, organization. As a result it had strong influence among the residents, in a situation where no one likes to express a different opinion in public.

There are several ways available to such an opposition group for spreading their views. One is using the neighborhood meeting to convince other residents and officials. The other is appealing directly to the central government by residents' petition. Another way is asking local assemblymen or powerful persons to stop such a renewal project. Usually, the residents like to use informal approaches, such as the last, to spread their opinions.
V. Summary

Because of the problem of communication, in Liu-Hsiang there was some misunderstanding between the residents and the city government. The government thought the urban renewal program was of considerable benefit for the residents, particularly as one quarter of capital sums used would be devoted to subsidies and public facilities from which the government would get no return. From its point of views, the residents' opposition is unreasonable. However, I would like comment from the residents' point of view. While in the long term, this program may be good for the residents, in the short term, there are some losses. Residents, particularly those with low-incomes, tend only to be concerned with their short-term interests.
Notes to Chapter 3


2. Sources: Ibid., P. 2.


4. This area of urban renewal has now (June, 1980) been designated by the City Mayor, and a start has been made on implementation with no further changes in the plan.

5. This section is based on discussions and interviews with officials of the city government during a period of work in the City Planning Department.

6. This section is based on my observations and interviews with the residents in Liu-Hsiang.
I. The Goals of the Long-Term Upgrading

An examination of the city mayor's declaration and the city government's goals for urban renewal (Ch. 3, I), suggests the government is concerned largely with "negative actions". Demolition and elimination are used to improve residential quality and land use. I believe it should be possible to draw up goals which require "positive actions" for urban redevelopment. My goals are set out below.

1. To improve the physical environment.
   a. To improve private housing.
      - Safety of living conditions: structure (frame, foundation), wall, roof, stairway, fire prevention material, etc.
      - Physical conditions: area for light access, height of ceiling, ventilation, access.
      - Living space: floor area, number of rooms, building coverage, etc.
      - Facilities: kitchen, toilet, bath, water supply, sewage, electricity, gas, etc.
b. To improve public environment.
   - Public safety: fire prevention (wide alleys, fire hydrants).
   - Sanitation: noise, dust/dirt, smoke, fume elimination.
   - Public services: garbage collection, water supply, sewage, street lighting, telephones, etc..
   - Circulation: streets and alleys for vehicular and pedestrian access, road conditions, parking, etc..
   - Facilities: parks, playgrounds, markets, neighborhood centers, etc..

2. To improve the socio-economic environment.

a. To improve the social environment.
   - Neighborhood structure: neighbors' relationships, organization, identity, stability, etc..
   - Social activities: local activities (religion, interest groups), daily activities (shopping, chatting, playing chess, etc.).
   - Re-education and training environment (night classes, etc.).
   - Crime prevention.

b. To improve the economic environment.
   - Land use: increase floor area and open space. (i.e. promote efficient land use.)
   - Land values: the economic profit of land ownership.
   - Local economy: shops, markets, etc..
   - Employment: job opportunities, local employment.

3. To satisfy the needs of residents.

a. To encourage urban upgrading by a group of residents themselves.

b. To consider the upgrading ability of residents, in terms of their
incomes, education, occupations, family conditions, etc..

c. To consider the upgrading methods used by residents, in terms of living styles, value, free market system, etc..

d. To satisfy residents with different styles, units, spacings of buildings.

e. To take care of low-income residents.

f. To settle all original residents after the completion of upgrading.

4. To respect the style and development of Taipei City.

a. To consider the urban development trend.

b. To respect the living style of residents.

c. To respect the relationships in and between neighborhoods.

Problem-setting

Basically, the following setting out of the problems is based on my observations and interviews in the summer of 1979. From the goals of upgrading which I set out at the start of the chapter, we carefully examined these problems one by one. In short, there are two kinds of problems, one is existing problems, associated with the physical and socio-economic environments. The other kind is implementation problems, arising from different views held by the residents and the government.
II. The Problems of Physical Environment

1. The problems of private housing:

   a. Problems of safety:

      - In the Liu-Hsiang area, almost 90% of the housing has attic sleeping space. Usually, it is has been added by the residents themselves, who did not consider the problems of safety. The most dangerous elements are step ladders. These are all temporary, and are wooden, narrow, at a high angle, and not fixed. Problems are compounded by the attics being used by children, even babies.

      - According to a government survey, some buildings are over-aged, and the 13 percent of the buildings made of wood do not have any fire prevention facilities.

      - In Taiwan, typhoons occur every summer. I found that some roofing materials are not safe, particularly in typhoons.

   b. Problems of physical conditions:

      - Because of the high building cover ratio, the absence of courts within longer lots, and narrow alleys, all residential physical conditions are poor. Problems include: poor ventilation, little indoor sunlight, poor sanitation, etc..

      - Because of the added attics, attic ceilings are too low to allow standing up.

   c. Problems of living space:

      - The addition of attics illustrates the lack of living space.
According to the afore-mentioned survey, there is 8.54 m² (93 ft²) per person, which is low, even in comparison with that of Taipei as a whole -- 14.3 m².

- Because it is part of the Old-City, in Liu-Hsiang there are many large families. One family which I interviewed had 11 members. There are also many cases of apprentices living with their masters. Therefore, residents need to add more space.

- Low-income residents need to earn money even at home. By occupying part of the space for working, living space is further reduced.

- Because of the lack of a number of rooms, there is little privacy in a family.

d. Problems of facilities:

- According to the survey, 20% of the houses have no bathroom, 13% no kitchen, and 12% no toilet (there is one public toilet in Liu-Hsiang).

- From my observations, even where these facilities exist, they are in poor condition, not having enough room, are old style, and lack gas, etc. However, every family has a T.V. and refrigerator.

2. The problems of public environment:

a. Problems of public safety:

- In this area, almost all the alleys are under 3 m (about 10 ft) wide. This restricts access by fire engines in an area with
lots of wooden buildings and row housing.

b. Problems of sanitation:
   - Because of overcrowded buildings, narrow alleys, lack of open spaces, physical conditions in this area are very poor. For example, there is little sunshine in the alleys, and poor ventilation.
   - There is one public toilet, lack of clearing and maintenance of which spoils the environment.
   - There are many family factories, such as, printing works, and ironworks, which make considerable noise. There are also some factories, such bean curd works, which make bad odors.
   - There is one dirty gutter (2 m wide) through the site. Although it has been covered, it still causes problems.
   - There are fire alleys in some newer buildings, but these have been cluttered by residents' waste goods, which adds to the sanitation problems.
   - Along the main road, there are lots of vendors, especially greengrocers, who create sanitation problems.

c. Problems of public services:
   - Because of the narrow alleys, garbage trucks find it hard to collect garbage. Residents usually wait at the entrance to a lane when the truck comes.
   - In this area, there are also very few street lights. Government officials explain that they do not service street lights in alleys under 4 meters wide.
d. Problems of circulation:

- Land use statistics show that only 16.5% of land is used for street. There are no parking spaces and no playgrounds. The level of circulation is very low.
- As mentioned before, most of the alleys are narrow (under 10 ft) making vehicular circulation difficult.
- Conditions of part of the roads in Liu-Hsiang are not good. This is seen especially after rain, when there are lots of water-filled holes.
- Because of the lack of playgrounds children can not help playing on the roads. Therefore, the roads become in effect even narrower.
- One main road in Liu-Hsiang serves as part of the outer ring of Taipei city. There is heavy traffic, and danger for the residents.
- In addition, there is another road which connects Taipei and its satellite city, and is only for motor cycles. It is a similar serious influence on the area.

e. Problems of public facilities:

- There is not any public facility in this area.
- However, there are a primary school, and a technical high school across the street. There are a theater and very famous free night-market nearby. Along the river, there are a playground and a park. There are a fire station and police station across the bordering streets. A big hospital and a famous temple for tourists are near to here. But because
III. The Problems of the Socio-economic Environment

1. The problems of social environment:
   a. Problems of crime:
      - The most serious social problem is that a famous area for
        prostitution is very near to our area. Therefore, lots of
        criminals come to Liu-Hsiang, such as: illegal prostitutes,
        hoodlums, gamblers, persons who smoke or sell opium.
        According to my interviews with a local policeman, crime in
        this area is higher than in other places in Taipei. He
        confirmed that part of the problems came from the proximity
        of the prostitution area.
   b. Problems of education:
      - The levels of education are very low in this area. Less than
        5% of the residents graduated from college, and over half
        have only primary level education. A high percentage of
        residents are illiterate. Moreover, there is no powerful man
        (assemblyman, official) living in this area.
   c. Problems of religion:
      - There is one small temple in this area, which, despite its
        size, has a big influence on residents. Almost 90% of the
residents are followers of local Taoism, and must have an altar in their living rooms. In the summer of 1979, I happened to encounter the annual pilgrimage of the local temple. I found that the influence of religions in this area is considerable.

d. Problems of residential mobility:
- Almost all of the 34% of the residents of Liu-Hsiang who are tenants come from the southern part of Taiwan, living here only for the convenience of their jobs.
- According to a resident opinion survey, 76% of the residents have lived here for 10 or more years.
- Because of the traditional land value, almost all (86%) of the residents do not want to move out. But, interviews with some from the younger generation suggest a trend towards mobility.

2. The problems of economic environment:

a. Problems of income:
- Generally speaking, this area is inhabited by low income people. According to data, the annual income in this area is NT$139,920 per household (US$3,682). It is lower than that of Taipei city -- average NT$167,097 (US$4,397). Moreover, average family size in this area is 5.7 persons. There are only a few people who live on the Governmental allowance.
- As I interviewed, I found that there is a big income gap among residents. In one case, annual income was about NT$840,000 and in another income was only NT$36,000, less than one twentieth.
The former is the boss of a printing works, and owns land and a house. The latter is a vendor of ice, living in illegal housing occupying public land.

b. Problems of employment:
- In this area 80% of residents are employees. The largest proportion of the residents are employed in manufacture (40%). 68% of the population are between 15 and 64 years old (i.e. work-age), which is higher than that of Taipei's average -- 64%. However the proportion of the work-age population which has employment is only 30%, lower than Taipei's average of 37%. This shows that the unemployed population of this area is not small.

c. Problems of land values:
- Although this area is very near to downtown, and also very convenient for jobs, land values are very low, especially, compared with the surrounding area.
- In this area, 16% is public land, 84% is private land. The public land is along the main road and so is of higher value. But it has been occupied by illegally residents for a long time. There will be problems making it more difficult to replace them.
IV. The Problems of Residents' View

1. Small lot division making individual re-building difficult

At present, in this area, the average lot division is too small
\((4\text{m} \times 13\text{m} = 52\text{m}^2 \text{ i.e. } 13\text{ft} \times 43\text{ft} = 560\text{ft}^2)\) for the individual
to re-build on. Therefore, if a person wants to re-build his
house, he must negotiate with his neighbors in order to get
enough land.

2. The problems of residential coordination for housing rebuilding

a. Too many residents, too many different conditions and ideas.

In this area, there are over one thousand households, and
everyone is concerned only with his or her own interests.
This makes everything complicated and compromise difficult.
For instance, there are seven different types of tenure
conditions (For details, see Ch. 2, III.), and there are
different living conditions. Some residents are satisfied
with or used to their living conditions, and do not want to
change for fear of losing their existing interests. As I
interviewed, I found a whole range of different standards,
values, tastes, and incomes. If upgrading occurs, it is
difficult. This is also the problem in the government urban
renewal program, which lacks flexibility towards the residents'
different needs. This inflexibility is the basic problem,
applying the same standard improvement to too many residents.

b. There is no one to organize the residents and to push them
to coordinate.
3. Low-income residents who lack money to improve their living environment

In this area, almost all residents are low-income (see socio-economic problem above). Their income can only satisfy their food and clothing needs. They do not have extra money for saving to improve their living conditions, although, they want to improve these conditions. Some residents illegally occupy public land for living space, with those residents, the immediate problem, talk of upgrading seems irrelevant.

4. Almost all the Old-City residents have lived here for over 10 years, so are already used to their living environment

Accustomed to conditions, and the relationships of the neighborhood, even those living in substandard conditions (who are usually old men) say there is nothing they want improved, everything is fine. very convenient, and there are good relations among neighbors, compared with the modern style of apartment. They saw little reason for improvement.

5. The demand for ground floor space

For some traditional and commercial reasons, almost all residents want to occupy the ground floor. To satisfy this demand the building coverage at present is over 90%, when according to the building code it should be 60% in residential areas. After resident-initiated rebuilding, it is impossible to satisfy the residents' demand for ground floor space.
6. The gap between the government’s and residents’ concepts of upgrading

As I interviewed, residents used a metaphor that the government wants residents to all dress in robes. We appreciate this, but think that a shirt is good enough for us. In general, the government focuses on the appearance of the environment, such as gaining more green space for public use. But residents do not think that is necessary. They want more area for private housing. The level and point of upgrading are different between the government and the residents.

7. The residents would rather deal with private developers than with government.

From the residents’ points of view, it is difficult to deal with the government. Residents are reluctant to have contact with the government. They feel the government’s methods lack flexibility. Residents cannot make a contract with the government, and also find it hard to have their ideas incorporated. They fear losing control of projects. In addition, there are some bad past examples of government efforts, for example, no efficiency in working process, delays in the schedule, jerry-building. Residents are also concerned about the responsibility for cost inflation during the period of upgrading. Because the government does not want to take this responsibility, the residents would rather deal with private developers.
V. The Problems of the Government's View

1. Lack of a long-term upgrading program for the Old-City

   a. Problem of large area

      The government wants to improve the whole area of the Old-City (about 135 districts, 1174 ha.)\(^1\), but lacks a program for long-term upgrading. From the beginning (1957, Chung Hwa Shopping Mall renewal) till now (1979, Liu-Hsiang area renewal), the government has only used the method of total demolition and reconstruction. However, they met the same trouble and opposition in every case, problems which up to now they have no better way of solving. In the city government, there is an urban renewal department, which has produced no results in its three years of existence. The government is eager to draw up a long-term upgrading program to provide guidelines.

   b. Problem of finance

      In the Liu-Hsiang case, only 3.9 hectares is involved. The government, however, has to find NT$1,000,000,000.(US$30,000,000.) for this single project. One quarter of this sum, used for subsidies and public facilities, will produce no returns to the government, through sales of housing etc.. In the long-term, finding such large sums, for a total area one hundred times the size of Liu-Hsiang, will be difficult.

   c. Problem of time frame

      In Liu-Hsiang, the government has spent three years up to now, but without result. In the long-term, there are 135 districts
for upgrading. At this pace the process will take a very long
time with needed efforts difficult to estimate.

2. Getting cooperation from the residents
(Negotiating with the residents)

From the government's point of view, this is the most troublesome
and serious problem. They do not know how to start to negotiate
with the residents. This is because they are not familiar with
relationships in the neighborhood. In fact there is no powerful
organization in the neighborhood and the government has no contact
with the influential persons in the neighborhood. In short, there
is a gap between the government and the residents. Therefore,
although the government has spent a lot of time, money, and effort
on Liu-Hsiang, it seems to have been in vain.

3. Breaking through the existing law and regulations for upgrading

The existing city plan (drawn up in 1973, and modified until now)
is not suitable for redevelopment in the Old-City under present
conditions. The plan does not allow for enough public facilities or
green space. It also provides for small block, grid roads which
make the Old-City hard to develop. Moreover, the government does not
have the resources to develop these planned roads. The Old-City
has remained undeveloped. At present, to establish new upgrading
guidelines, there are many legal procedures and regulations which
must be modified.

4. Lack of one responsible and powerful department which can take care
of the whole work of urban upgrading

At present, although there is an Urban Renewal Department in the
city government, it takes the responsibility for merely investigation, planning, and some coordination. Once there is a project to be implemented, several departments are involved, and no single department in charge.

5. Lack of criteria for the evaluation of government-run upgrading

There is no report which evaluates the past renewal projects which the government has done. Nobody knows if they have succeeded or failed after five or ten years, and also, what are criteria should be used for such evaluation. Therefore, up to now, the results of these projects are still ambiguous for every one involved, even for the head of the City Planning Department, whom I interviewed. Proper evaluation of past performance is very important for the future.

6. The government wants a clear outcome within a short time.

The Planning Department head would like to see a clear and prompt outcome from upgrading, because he can show the results to everybody. This political concern for clarity and speed is another problem.

VI. Summary

From my observations, discussions, and studies, I found that the central problem involves an excessively high degree of population and land use (i.e. high building coverage, overcrowding of buildings, high density population, narrow streets, lack of facilities, etc.), and an
The following practical actions are summarized in this chapter:

Private:
1. Upgrading: Repair of attics & roofs, improvements of kitchens, toilets and baths, which are immediate needs.
2. Rebuilding the residents' houses with developers, which are the residents' long-term wishes.

Public:
3. Make the streets/alleys wider, which the government wants.
4. Improve facilities: Construction of one neighborhood center, and provision (government and people concern) of more open space for children, which concerns both the government and the residents.

I do not think we can solve these problems (except #1) without demolishing some buildings. In other words, we have to first concentrate on solving problem #2. That is, if we can encourage the residents who live in such poor conditions to rebuild their houses as a group of neighbors, then, they can improve their private and public physical environment.
Note to Chapter 4

1. In 1977, when the City Mayor selected the area of Liu-Hsiang for urban renewal, City Planning Department took a survey in Liu-Hsiang Area. (For detail results, see Report on Urban Renewal Project in Liu-Hsiang, 1977.)
I. Introducing Four Channels in the Upgrading Process

According to my observations and interviews, I found that the relationships in the environmental improvement among the government, residents, and private developers are:

\[ \text{G} \rightarrow \text{R} \]

- The government wants to improve the residents' physical environment. However,
- the residents do not want to trust the government. There is a gap in communication.

\[ \text{R} \rightarrow \text{D} \]

- The residents want to deal with private developers, using the free market system. However,
- the developer does not want to deal with too many residents, because it is too much trouble.

\[ \text{G} \rightarrow \text{D} \]

- The government hopes the developer can be involved, because the government does not have enough financial resources to improve the whole Old-City. However,
- the developer does not have any interest, because there is no subsidy program from the government.
It is difficult for the residents themselves to get together.

Thus, we can see the relationships between all three channels are bad. There is no link and attraction among them; every channel does what it wants according to its rights and opportunities. I strongly feel that, this is the key problem for upgrading in the Old-City. I consider that, no one channel can upgrade the Old-City by itself; every channel needs to participate in the upgrading process.

Therefore, part of the solution is that the three channels need another group among them for coordination. I suggest this group be made up of a group of university-based teachers and students. They come from departments of architecture, planning, sociology, law, economics, etc. The group is to be a coordinator, consultant, and technical assistant.

The university-based group is ideal to perform a coordinating function for several reasons. Unlike the other channels, the group is not concerned with profits, can make objective assessments, can devote more time and effort to the upgrading process and, of course, brings specialized knowledge to the process.

The concept model of these four channels is as follows:
I suggest there is an upgrading program which can encourage each of these four channels to be involved in the upgrading process in the Old-City.

The advantages of this participation concept are:

- It is a way to satisfy the residents who want to improve their living environment.
- It can push every channel to understand each other, to realize what they really want, and what problems they have.
- It can use every channel's efforts in improving their environment.
- It also can educate each channel through practical communication.
II. The Principle of Piecemeal Redevelopment

Since the Old-City is the historic area of Taipei, the development of the Old-City is limited by early urban development characterized by small lot sub-division, complicated land tenure, mixed land use, narrow and snaky street patterns, old and poor building conditions, etc.. Therefore, it is difficult to find a whole, large area for redevelopment. The typical redevelopment of the Old-City is along the widened streets where there are some new, high buildings, behind which are still many low, crowded buildings. In general, the Old-City is subject to piecemeal redevelopment; it is hard to develop by a systematic "master plan".

Christopher Alexander and others, in The Oregon Experiment, set out some of the characteristics of piecemeal growth which "goes forward in small steps." Such an approach to growth "hinges on a view of the environment which is dynamic and continuous." One advantage of this manner of development is that initially mistakes are on a smaller scale than in larger projects.1

Under the present situation in Taipei, I try to follow the existing pattern of piecemeal redevelopment. Some practical considerations for sub-division and piecemeal growth need to be further considered.
- The similarity in an area of living conditions—physical environment, such as: building type, age, material, interior, etc..
- The similarity of economic resources of the residents; such as, income, living expenses, etc..
- The same tenure conditions; such as, legal, illegal, land, house, ownership, rent, etc..
- The common area of social activity; such as, religious activity, interest groups, etc..
- The area with which the neighbors are familiar.
- The existing administrative area.
- The existing and planned roads.
- The scale of participation.

The advantages of piecemeal redevelopment are:
- The fewer residents, the easier it is to negotiate for improving their environment.
- It is easier to ensure similar conditions; such as, tenure conditions, living conditions, income, physical environment, etc..
- It is possible for the residents to participate, and become familiar with each other.
- If the government wants to upgrade the area by itself, it does not need a large amount of money at one time. Thus, if the residents do not want to upgrade their area, the government can undertake the costs involved in the upgrading.
- Solutions can be more flexible, therefore, the urban development will
become more organic.
- It is easy to handle, modify, and correct the development.

III. The Principle of Organic Growth in the Old-City

The Old-City has developed for a long time, as a result of historic processes. I respect the results of urban development. I believe, we should try to observe the process of urban development carefully, and gradually modify this process by involving the residents and existing systems. I would like to call this "organic growth", which involves compromise by every channel.

Alexander, in The Oregan Experiment, defines organic growth as "the kind of order that is achieved when there is a perfect balance between the needs of the parts, and the needs of the whole." The University of Cambridge as a perfect example to show this kind of growth. Alexander strongly criticizes "master plan" which controls individual acts of construction. "Master plan" can create a totality, but not a whole. Finally, he summarized that the principle of organic order as following:

Planning and construction will be guided by a process which allows the whole to emerge gradually from local acts. To this end, the community shall not adopt any form of physical master plan, but shall instead adopt the process which this book describes;
the most basic fact of this process is that it enables the community to draw its order, not from a fixed map of the future, but from a communal pattern language; the process shall be administered, on behalf of the community, by a single planning board of less than 10 members, made up of users and administrators in about equal numbers, and a director of planning, the director of planning shall have a staff, of roughly one person/2000 population, to guide community action.

However, at present, there is a detailed city development plan which has been drawn up by the government. This plan should be strongly criticized. It destroys with a grid street pattern the existing city development. In fact, it did not consider the existing situation at all. The plan also fails to provide for public facilities. There are no neighborhood centers, markets, or open spaces for residents. The biggest problem, however, is that the government does not have the financial ability to develop these planned roads. Finance is also an important reason why the Old-City can not revitalized. I hope the upgrading program presented in this thesis can solve the problems of the detailed city development plan.

The strategies of this organic growth concept are:
- It is not too difficult and complicated a process to modify the existing detailed plan to accommodate "organic growth".
- There is careful observation made of the existing street pattern.
- There is careful observation of activities of the neighborhood.
- There are some interviews and participatory activities to realize the needs of residents.
- We need to examine, modify, and use the existing free market system.
- There is a committee which consists of residents, specialists, private
developers, and government officials responsible for urban development.
- Obviously, the principles of four channels' involvement and piecemeal
  redevelopment are consistent with this organic growth concept.

IV. Timelimits for Resident-initiated Upgrading

According to interviews and experience in rebuilding by the free
market system, the residents find it difficult to get everyone's
agreement for rebuilding. Sometimes, even if only one of them disagrees
with rebuilding, then, the whole rebuilding project fails. Very often
the only reason for his disagreement, is merely a desire for more
benefits from the rebuilding.

The government, in order to avoid this, needs timelimits as a tool
which pushes resident-initiated coordination and negotiation. It also
pushes the residents to complete upgrading within the timelimits. In the
meanwhile, there is a period for the residents to adapt to the upgrading
process; such as, move out, save money, negotiation, etc..

The strategies of this timelimit concept are:
- Once the government announces the area of upgrading, it also announces
  the timelimits for resident-initiated upgrading. After the deadline,
  the government intends to upgrade by itself.
- Within the period of the timelimits, the residents can get subsidies
  or incentives, otherwise, once done by the government, there is nothing.
- The sooner residents act, the more incentives they will get.
V. Subsidy and Incentive for Residents and Private Developers

There are some problems in involving the residents and developers in the rebuilding process. According to interviews of residents and developers, some incentives and subsidies are necessary to encourage involvement. For instance, if there is no subsidy program for low-income residents (especially, when quite a number of residents in the Old-City are low-income.), how can they be asked first to undergo upgrading? Also, if there is too much trouble negotiating with a group of residents, how could you expect developers to be involved in the upgrading? I consider, this subsidy and incentive concept is a tool which will attract residents and developers to participate in the upgrading program.

The strategies of this subsidy concept are:
- There is an amount of funding for this upgrading program from the government.
- There are long term, low interest loans for the low income residents.
- There are floor area ratio incentives for residents and developers.
- There are some free or reduced taxes for residents and developers.
- The government develops the public facilities as first priority. There include: open spaces, streets, neighborhood centers, etc..
- There are some services provided by the University-based group. Such as: organizing residents as a group, negotiating with residents and developer, technical assistance, etc..
VI. Summary

The following conceptual diagram summarizes the concepts discussed in this chapter:

From this diagram, we can see there are three principles in the proposed Old-City development. In fact, those three principles are in a closed relationship. That is, "Four channels' participation" and "Organic growth" are mutually supporting, likewise "Piecemeal redevelopment" and "Organic growth" are mutually supporting. Again, "Four channels' participation" and "Piecemeal redevelopment" have a
similar relationship. In addition, there are two kinds of tool to encourage Old-City development with these three principles. One is the tool of "Push". By imposing "Timelimits", the government uses a little force to push development this way. With the other tool of "Attraction", the government, by offering "Incentive & Subsidy", allows for some advantages to attract development this way.

These basic concepts are fundamental to my primary proposal for upgrading in the Old-City in Taipei.
Notes to Chapter 5


2. Ibid., pp. 9-37.
Chapter 6

A PROPOSAL OF UPGRADING IN
THE LIU-HSIANG AREA

I. Using the Existing Free Market System

From the implementation point of view, I believe, that there is a high potential to use the existing system as much as possible, especially the existing free market system.

In Taipei, because of very high population density, the land is very expensive. Developers are gradually having difficulties finding land for development. Therefore, they are obliged to negotiate with land owners to rebuild their existing houses.

In general, the land owners merely offer the land. It is the developer who takes the whole responsibility for demolition, design, construction drawings, license application, construction, and even sale of the completed buildings. Basically, developer and landowner equally share the results of this rebuilding. The land owners tend to ask for title to two stories (if a four-story building has been built) -- the original land owners need physical space not money.

The general situation is:
Land owner's concerns:

1) He should be the land owner, and so be able to offer the land.

2) He does not want to pay any money. Moreover, he can get the insurance fee from the developer. (10-20% of the land value)

3) Demolition of the existing buildings is done by the developer.

4) Design, drawing, license application is done by the developer.

5) The responsibility for construction rests with the developer.

6) The land owner can make requests about the interior partition and materials to be used on his floor.

7) The developer takes the responsibility for inflation within the construction period.

8) There is a contract between land owner and the developer.

9) The land owner takes care of the increase in land price taxes.

Developer's concerns:

1) The profits of the enterprise is not less than 20%.

2) The rebuilding should be completed as soon as possible. The developer needs money for the continued running of his business.

3) There are no site problems to effect construction licensing.

4) There are not too many land owners. One is the best, five the maximum for the developer.

5) The location of the site is to be considered. Selling the new building should be easy to ensure rapid return on investment.

6) He is not interested in a small site.

Usually, the whole business can be finished within one to two years, which is very efficient.
This is the most common way in Taiwan to rebuild houses, and a lot of people use this system. The government only builds public housing for people with very low incomes. However, the scale of public housing is very limited. (only 6% of all housing\(^1\))

**An example of a four-story building in the Old-City\(^2\)**

In general, the average size of a lot in the Old-City is 50 m\(^2\) (540 ft\(^2\)). Let us suppose that two households get together, forming a lot as follows:

Lot: 50 x 2 = 100 m\(^2\) (1080 ft\(^2\))

Building Coverage: 100 x 0.6* = 60 m\(^2\) (645 ft\(^2\))

(* According to the building code, the ratio of building coverage is 60% in residential areas.)

If it is permissible to build a four-story building, according to the code, a basement must be included which is 25% of the area of one floor of the building. Therefore:

**Construction Cost**: NT$4,550 per m\(^2\) (US$11.75 per ft\(^2\))

Basement: 4,550 x 60 x 0.25 = 68,250

1 - 4 F: 4,550 x 60 x 4 = 1,092,000

**Management cost**: 20% = 232,050

**Total**: NT$1,392,300 (NT$1,400,000=US$39,000)

**Sale Price**:

Type A: The building can allow a store at the ground-floor level (if it faces the outside road).
1st F: $24,000/m^2 \times 60 \times 1.1^# = $1,584,000

2-4 F: $11,500/m^2 \times 3 \times 60 \times 1.1^# = $2,277,000

Basement: $3,000/m^2 \times 60 \times 0.25 = $45,000

Total: NT$3,906,000 (NT$4,000,000 = US$111,000)

Type B: The building does not face the outside road.

1-4 F: $10,600/m^2 \times 4 \times 60 \times 1.15^# = $2,925,600

Basement: $3,000/m^2 \times 60 \times 0.25 = $45,000

Total: NT$2,970,600 (NT$3,000,000 = US$83,000)

(\# According to the building code, 10-15% balcony is legal, when the developer sells the apartment, he always adds the balcony area to the price.)

Usually, the developer wants to get 20% return on his investment. That is, the developer wants:

1,400,000 \times 120\% = 1,680,000. In the other words, in

Type A: Developer -- 42\% (1,680,000/4,000,000); Owner -- 58\%;

Type B: Developer -- 56\% (1,680,000/3,000,000); Owner -- 44\%.

But developer and land owner always come to an agreement like the following:

**Type A:**

```
4
3
2
1
```

*STREET*

Owner

**Type B:**

```
4
3
2
1
```

*ALLEY*

Developer
The problem of "double density"

In the case of the Liu-Hsiang Area, in existing buildings 30% of the occupants are tenants, and 70% are of the land owner's household. Upon rebuilding, the tenants will have to move out, requiring other programs to supply their housing.

Existing: F.A.R. -- 1.55 (one and two stories; coverage is 100%)
If, code: F.A.R. -- 2.4 (4 stories; coverage is 60%)
Or incentive: F.A.R. -- 3.0 (5 stories; coverage is 60%)

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>4 stories</th>
<th>5 stories</th>
<th>(Site x F.A.R.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>(39,300 m²)</td>
</tr>
<tr>
<td>F.A.R. Ratio</td>
<td>1.55</td>
<td>2.4</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Total Floor Area</td>
<td>1.55</td>
<td>2.4</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>F.A. Increment</td>
<td>0%</td>
<td>54%</td>
<td>94% ((3.0-1.55)/1.55)</td>
<td></td>
</tr>
<tr>
<td>F.A. Land Owner</td>
<td>1.09 (1.55x70%)</td>
<td>1.2</td>
<td>1.5 (3.0 x 0.5)</td>
<td></td>
</tr>
<tr>
<td>F.A. Improvement</td>
<td>0%</td>
<td>10%</td>
<td>38% (1.5/1.09)</td>
<td></td>
</tr>
<tr>
<td>Population Increase</td>
<td>0%</td>
<td>40%</td>
<td>*40% (70% x 2 - 100%)</td>
<td></td>
</tr>
</tbody>
</table>

(* In the case of 5 stories, using the private developer system, there is a need to limit the minimum size of the dwelling unit. With 4 stories it is not necessary.)

However, if the government buys or exchanges 5-15% of the land for semi-public space (such as, a neighborhood center, open space etc.), then the density of population after rebuilding only increase 20-30%.)
II. The Upgrading Process and The Responsibilities of Each Group

The duties of the government in the upgrading process are:

1. The government decides upon and announces **the area for upgrading**. (The decision can be based on the government's own investigations, the suggestion of the university-based group or on the residents' application.)

2. The government announces **the design guidelines for the physical environment control plan**. (The design guidelines can be drawn up by the government or by the university-based group, after a survey of residents. But this plan is flexible, and can be modified by the residents.)

3. The government announces the **timelimits and application process** for the resident-initiated upgrading. (The limit can be 3 years, 5 years, or 10 years, depending on the existing situation. At the expiration of this timelimit, the government intends to undertake upgrading by itself.)

4. The government announces the **program** to encourage the residents who want to rebuild their houses as a group. However, there are regulations and certain procedures which must be followed.

5. The government draws up another **program** to encourage developers to become involved in this rebuilding process.
The responsibilities in the upgrading process of the university-based group involved are:

1. The Government asks interested University-based groups for their cooperation and assistance.

2. a) The University-based group goes to the neighborhood, to coordinate and assist the Residents.

   or

   b) Some People apply to participate in this upgrading program, and the Government assigns one University-based group to be involved.

   or

   c) Some Residents directly seek out a University-based group to assist them.

   or

   d) Residents can form a group by themselves, which they do without assistance.

3. The University-based group organizes the Residents into a group, and gives them some technical assistance. There may be some problems that need to be negotiated with the other parties involved in the process.

4. The University-based group acts as coordinator between the Residents and the Government.
5. The University-based group acts as coordinator between the Residents and Developer.

6. The University-based group acts as coordinator between the Government and Developer.

The rights and responsibilities of the residents themselves in the rebuilding process are:

1. To get the whole group of residents (about 30 units) or the large majority (80%) to agree to rebuild their houses.
   a) The University-based group organizes and carries on discussions with the group of Residents.
   b) Residents, Developer and University-based Group get together to discuss and decide the site plan of their subdivision area.
   c) The relocation of the residents in the new building.
      - The three groups calculate the existing and future floor area and location in dollar terms for each Resident.
      - Lots are drawn to ensure fairness in relocation.
   d) The Residents' group makes a contract with the developer, and rebuilding starts.
   e) The government constructs public streets and assists in the development of semi-private space.

2. If the whole group or large majority of the residents can not get
together within 2 years, individual residents are allowed to proceed with upgrading, but without subsidy or other assistance.

3. After the 5 year timelimit expires, if there has been no upgrading, the government intends to rebuild the area by itself.

III. Design Guidelines for the Physical Environment Control Plan

1. Sub-division Principles
   a. According to the existing street pattern.
   b. The scale of each sub-division is 20 - 50 units. (The scale depends on the area and situation, but no less than 10 units, no more than 50 units can be included in one sub-division.)
   c. The area of sub-division is 1,000 m$^2$ - 2,000 m$^2$. (Again, this is flexible, but the area can be no less than 500 m$^2$, no more than 3,000 m$^2$.)
   d. The width of streets should be at least 6 m.
   e. The sub-division is modified by existing physical conditions (building type, age, etc.), tenure conditions (legal, ownership, etc.); socio-economic conditions (income, life styles, etc.).

2. Land Utilization & Building control
   a. Public space (street) -- 15-25%.
      -- Within this range the existing exact

In the case of L.H.

17%
percentage of public space in this area should be preserved*.

(* If there is not enough space for public streets, semi-private space can be used.)

b. Semi-public space (neighborhood centers, markets, etc.) -- 5-15%.
-- The government can buy or exchange land for semi-public use.

c. Private/Semi-private space (Buildings, access, playgrounds, etc.) -- 60-80%.
-- This is private ownership.

d. Building coverage: 60% (existing code).
e. Ratio of floor area: 240%.

3. Semi-private Open Space Control

a. Tenure of the semi-private open space belongs to the whole group of residents. (Everyone shares the space with the others; there is no physical division.)

b. After street widening, access, etc., at least 50% of the open space will be available for playgrounds. The playlot proportions will be within 1:1 to 1:2. However, if there are problems finding space for a single playground, it is allowed to set up two places.

c. There must be no encroachment on the semi-private open space by the residents.
d. A management committee selected by and drawn from among the residents is set up to maintain the semi-private open space.

4. Existing Building Code

--- It still has to be followed.

IV. An Outline of Residents Rebuilding Program

--- For encouraging a group of residents to rebuild their housing.

1. Ratio of floor area incentive. (Dept. of City Planning)

If the residents as a group, rebuild within:

the first two years, F.A.R.: 300%,
the third year, F.A.R.: 280%,
the fourth year, F.A.R.: 260%,
the fifth and subsequent years, F.A.R.: 240%.

However, there is a limit of 50 m² for the smallest dwelling unit.

2. Long term, low interest loans for those residents who can not buy even the smallest dwelling unit. (City Bank)

Loan $ = $/m² \times (50 \, m² \text{ minus number of } m² \text{ which he gets after rebuilding, if smaller than 50 m²})

This is to guarantee that everyone can get one dwelling unit after the rebuilding. (In the case of the Liu-Hsiang area, less than 30% of the residents will need to get loans.)
3. Tax free incentive. (Dept. of Finance)

Exemption from the tax on increased land value for original residents.

Tax exemptions on the money used in rebuilding. But, exemptions do not apply in the case of sale, transfer, or to new residents.

4. There is a grant for assistance to low income residents within the period of rebuilding. (Dept. of Social Affairs)

$/per month per household for renting housing.

(Only for low income families.)

5. Some assistance and facilities for improving the semi-private open space. (Dept. of Landscaping)

Including facilities for children's play; benches; planting; paving...

(There may be other programs to take care of this.)

6. The government's first priority is to develop the public streets and public facilities. (Dept. of Public Work)

7. Assistance and services to the residents are provided by the University-based group free of charge. (Dept. of City Planning)

*In item 2, 4, 5, 7, the government needs to spend money.*
V. An Outline of the Program Using Private Developers.

-- For encouraging private developers to become involved the upgrading process.

1. This upgrading program is supported by the government.
   In this way, the private developer can more easily and quickly get mortgage or loan finance. The government will give priority to such construction license applications, or provide assistance in other ways. (The government may need to first check the developer's background.)

2. This upgrading program is assisted by the university-based group.
   In this way, responsibilities in negotiations with the residents is undertaken by the group, and the developer does not need to deal with each of the residents in this 30 unit group. He only deals with the representatives of the residents and the university-based group, just like dealing with a few owners under the existing free market system. There is no additional effort required because of the additional number of owners. The university-based group can give other assistance, such as information sources, survey results, technical help, etc..

3. Tax reduction incentives.
   The developer reduces his taxes by taking part in this upgrading program. Again, there is no tax reduction in the case of sale etc..
4. Floor area incentives apply to developers as well as residents.

Because the developer shares half the floor area in the new building, if rebuilding takes place within the specified timelimits, the additional floor area incentive is shared by both groups.

5. Priority by the government in developing the public street and facilities applies to developers as well as residents.

The same as #6 of Residents Rebuilding Program. Therefore, the developer can easily and quickly sell the buildings, and get the return on his investment.

In the above five items, the government need not spend additional money.

VI. A Proposal for a Sub-division Plan in the Liu-Hsiang Area.

Using the design guidelines which I have established in III (ch. 6), I shall now draw up a proposal for a sub-division plan. It can ultimately modified by the government and residents.

For the physical plan of the proposal, see next page.

VII. Design Test and Comparison of One Sub-division Block

We shall now take the case of one block to further examine the
LIU-HSIANG AREA
SUGGESTED SUB-DIVISION PLAN

Legend
- Proposed Streets
- 3rd Stage of Urban Renewal Area
- Sub-division Block (20 - 50 units)

a-Chiang Bridge
Ho Ping W. Road
Kuangchow St.
Kuei Lin Road
Ho Ho S. Road
Ho Ping W. Road
Chun Shui River
EXISTING CASE
OF ONE SUB-DIVISION BLOCK (2-story
42 units)
CASE DESIGN
OF ONE SUB-DIVISION BLOCK (5-story 50 units)

STREET.

ALLEY

B.R. - Bed Room
b. - Bath
K. - Kitchen
D. - Dinning Room
L. - Living Room
T. - Terrace

1:300
physical design conditions -- building dimension, open space, room arrangement, access, etc. By comparing the existing block and this proposed design, we can realize how much improvement of the physical environment will be ensured.

Comparison of one Existing Block and its Rebuilding.

<table>
<thead>
<tr>
<th></th>
<th>Existing</th>
<th>Rebuilding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private land</td>
<td>780 m²</td>
<td>780 m²</td>
</tr>
<tr>
<td>Serviced road</td>
<td>416 m²</td>
<td>416 m²</td>
</tr>
<tr>
<td>Road lengths</td>
<td>116 m</td>
<td>65 m</td>
</tr>
<tr>
<td>Building coverage</td>
<td>780 m² (100%)</td>
<td>468 m² (60%)</td>
</tr>
<tr>
<td>Stories</td>
<td>2</td>
<td>4 or 5</td>
</tr>
<tr>
<td>Total floor area</td>
<td>1560 m²</td>
<td>2340 m²</td>
</tr>
<tr>
<td>Open space</td>
<td>0 m²</td>
<td>156 m² (780 x 40% x 50%)</td>
</tr>
<tr>
<td>Dwelling unites</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>Area/D.U.</td>
<td>40 m²</td>
<td>50 m²</td>
</tr>
<tr>
<td>Residents</td>
<td>232 P. (5.5 x 42)</td>
<td>275 P. (5.5 x 50)</td>
</tr>
<tr>
<td>Living space/P.</td>
<td>7 m²</td>
<td>8.5 m²</td>
</tr>
<tr>
<td>Annual income of residents</td>
<td>NT$140,000.</td>
<td>? (mixed / low &amp; middle)</td>
</tr>
<tr>
<td>Rent price (per unit / month)</td>
<td>NT$3,000.</td>
<td>? (higher)</td>
</tr>
<tr>
<td>Sale price / unit</td>
<td>? (very low)</td>
<td>NT$550,000.</td>
</tr>
<tr>
<td>Construction cost</td>
<td>? (no info.)</td>
<td>NT$250,000.</td>
</tr>
</tbody>
</table>
VIII. Summary

Basically, this proposal tries to consider the existing system as much as possible, and concerns itself first with the implementation level. Then, I try to introduce the different channels and how they participate in the upgrading process.

**Government -- Environmental Controller.**

This channel's duties are to modify the planning regulations, ask some university-based groups for assistance, decide and announce the design guidelines for the control plan, and set two programs for encouraging the residents and private developers to be involved in the upgrading process.

**Residents -- Owner/User.**

This channel's rights are to get agreement of the large majority about the upgrading proposal, form a group to discuss with the university-based group and developer their living environment and profits, relocate households during the period of rebuilding, and organize a management committee after rebuilding.

**Private Developer -- Capitalist/Constructor.**

This channel's concerns are to discuss with the residents and the university-based group, make a contract with the residents, apply the government's program which encourages the private developers'
investment, get the government's and university-based group's assistance, demolish and construct the buildings, and sell his parts of the new buildings. However, the quality of the environment is controlled by the residents and university-based group.

University-based Group -- Coordinator/Consultant.

This channel is asked by the government to coordinate and consult with the residents and private developer.

IX. Advantages & Disadvantages of this Proposal

Advantages:
1. Improving the physical environment according to the wishes of the residents themselves. (Residents)
2. Using the existing free market system. (Private Developers)
3. Reducing the capital and responsibilities of the government, and also, getting the maximum return to the government. (Government)
4. Providing opportunities for mutual education through the interaction of each channel. (University-based group and other channels)
5. Respecting the environment of the existing urban development. (City as a whole)

Disadvantages:
1. Not considering the tenants' problems.
2. Spending considerable effort in the relationships among these four channels.
Notes to Chapter 6

1. Figures for public housing construction in Taipei:
   Public housing units: 28,882. Total Taipei housing units: 484,792.
   Therefore, public housing is 6%. (Source: Department of Public
   housing, 1976)

2. Land value, construction cost, and sale price are according to the
   real situation in August, 1979. (Source: interview with private
   developer, summer 1979)
Chapter 7

Comparison of Four Urban Development Modes:
Original Situation, City Planning, Urban Renewal, & The New Proposal.

I. The Characteristics of the Four Modes

As outlined in the preceding chapters, four modes of urban development are possible in the Old-City.

First, there is the original situation, with its narrow, snaky, and spontaneous street pattern. The scale of improvement by residents is very small, in part because they always use the free market system to improve their environment. There is not any systematic plan; improvement is disorderly. This is the most common mode of development in the Old-City.

Second, there is a detailed city plan which proposes a small grid street system. The plan provides the legal means to the government to control city development. However, given the lack of financial support, the plan has not worked well, for only a few main roads have been developed.

Third, there is a project for urban renewal. It tries to modify the existing small-grid city plan by super-block redevelopment. The
area for improvement must be large, embracing a whole neighborhood in redevelopment under government direction. Usually, the standards of such environmental improvement are higher than residents can afford.

Fourth, there is the upgrading proposal which is suggested in this thesis. It is characterized by piecemeal redevelopment, and participation by four channels. The scale of improvement can be any size, according to the scale of participation. (For details, see ch. 5 & 6)

II. The Method of the Four Modes' Compared

Since there are four different interest groups to be involved in the upgrading process, and each group has their different position and interests, it is difficult to get agreement from comparing of the four modes of development. This is the fundamental issue—"Who does the comparison?"—with which I am concerned here.

Basically, there is no way to completely satisfy every interest group. However, I believe, a compromise which will satisfy every group can be reached. Therefore, below I shall simulate in turn the concerns and attitudes of each group in the upgrading process. For instance, the government is concerned about the physical environment, residents are concerned about their housing, developers are concerned with their profits, and the university-based groups are concerned with public and self-education. By carefully examining these different points of view, a satisfactory compromise for development is possible.
In general, there are two sides which are be considered in comparison. One is the outlay (or cost) side, the other is the return (or benefit) side. Each group checks his resources, and considers how much he can afford in expenditure, then, tries to get the biggest return possible. Of course, the different groups give different weights to different items in the range of concerns.

In theory, there are three degrees of comparison: 1. verbal, 2. quantity, 3. money value. However in this case, because of the limitations of data and time, only the first level (verbal comparison) has been done here. At the present stage, however, this level of comparism is useful and sufficient.

At the end of this chapter, an examination of the interests of the "city as a whole", in each of the four modes of urban development, will provide another reference for comparison.

III. The Government's* Position

(* Here, the government means the level of decision making, that is, the city mayor and the Department of City Planning.)

On the outlay side, the government has the following concerns:

First, risk. In the original mode, the government is not involved, and so there is no risk for it. In the planning mode, there is very little risk, because it has been the existing law for a long time, and only involves developing roads, which all groups regard as reasonable.
In the renewal mode, there is a lot of risk for the government. This is not only because there are no existing good examples to show, but also because a lot of residents are involved with their own property. In the new proposal, because of piecemeal redevelopment, there is less risk.

Second, residents' opposition. In the original mode, there is naturally no opposition. However, the government does not like this mode of development. In the planning mode, there are a few residents who will be opposed, because this mode has been in the existing law for a long time, and is only concerned with developing roads. In the renewal mode, the government is faced with opposition from more than half the residents. This is shown by the resident opinion survey. In the new proposal, there should be very few residents opposed, because they can both participate and use the private developer system.

Third, time. For political reasons, the government wants redevelopment done as soon as possible. In the original mode, the government is not involved, and so there is no time outlay. The planning mode is fast, because it only develops roads. The renewal mode is slower than the planning mode, because relatively large areas are involved. The new proposal is slowest for the government, because of the participatory process. However, the construction schedule is the fastest, because it uses the private developer system.

Fourth, money. The government is not involved in the original
mode, so there is no cost. In the planning mode, the government spends a lot of money which from the long-term view it can not afford. In the renewal mode, it spends more money than in the planning mode. In the new proposal, the government spends less money than in the planning and renewal modes, because the mode is not the sole responsibility of the government.

Fifth, administration, such as: departmental cooperation, changing the regulations, etc.. In the original mode, there is no administrative outlay. In the planning mode, there is also no additional outlay, because everything has been set up for a long time. The renewal mode needs more administrative outlay in the form of departmental cooperation. The new proposal requires a lot of administrative outlay in cooperation and changing the regulations.

Sixth, work effort. In the original mode, the government makes no such outlay. In the planning mode, it spends little effort. In the renewal mode, it makes a lot of effort, because everything is done by the government. In the new proposal, it makes less effort than in the renewal mode, because much of the effort is shared with the university-based group.

On the return side, the government has the following concerns:

First, political results -- seeks political credit from redevelopment. In the original mode, there is nothing to show off. In the planning mode, there is little result apart from a few developed roads
to show off. In the renewal mode, there is a complete result (whole area redeveloped by the government) to show off. For the government, this is the best way. In the new proposal, there is little return, because of piecemeal redevelopment in which the government takes only one part.

Second, physical environment improvement. In the original mode, which the government does not like, there is no such return. The government is not satisfied in the planning mode either, because of the small-grid street pattern and lack of open space and facilities. The renewal mode would provide the best environmental return for the government. In the new proposal, the environment will be no better than under the renewal mode, but better than under the planning mode.

Third, economic environment improvement. (land value, tax returns, floor area use, etc.) In the original mode, the economic environment, from the government's point of view, is very bad. In the planning mode, there is a little improvement but only along the developed roads. In the renewal mode, there is a lot of improvement. In the new proposal, there is also a lot of improvement, which may be better than the renewal mode, in terms of taxes and floor area use.

Fourth, social environment improvement. (crime, neighbors' relationships, etc.) In the original mode, some features of the social environment, such as crime, are bad, but some, such as social relations, are good. In the planning mode, there is no improvement, and some
features, like the relationships of the neighborhood may worsen. In the renewal mode, everything is changed. Some aspects of the social environment may improve, but other aspects, for example social relations, may get worse. In the new proposal, because it is a closer adaption of the existing situation and encourages participation, the social improvement will be appreciated by the government.

Fifth, long-term view. (finance, urban development, cost-benefit, etc.) In the original mode, there is no long-term view. In the planning mode, there is a long-term view of urban development, but no financial support. The renewal mode is only for the short term. In the new proposal, a truly long-term view is taken.

The government is also concerned with the scale of improvement which is characteristic of each mode. In the original mode, the scale is small, because redevelopment is done by private developers, individually. In the planning mode, the scale can be any size depending on government finance. In the renewal mode, the scale must be large. In the new proposal, development can be any size, involving a few pieces or lot of pieces.

IV. The Residents' Position

On the outlay side, residents may be concerned with:
First, money. The original mode requires little money, because it uses the private developer system. In the planning mode, some residents who are on the redeveloped road, must spend money. In the renewal mode, residents spend a lot of money for a higher standard of environment. In the new proposal, residents spend less money than under the original mode, because there are some subsidies and incentives.

Second, time. The original redevelopment for residents is short and fast, because they do the improvement by themselves and use the developer system. The planning mode redevelopment is long and slow, because it is done by the government which does not have the resources to develop the planned roads. The renewal mode is short, because it requires a project with a budget. But because it is done by the government, it can be slow. The new proposal, redevelopment is longer in the planning stages, because there is a negotiation problem, but is fast in the construction stage, because it uses the developer system.

Third, social cost. (life style, behavior, neighborhood relationships, etc.) In the original mode, there is no change, and no cost. In the planning mode, there is a little change along the developed roads, and some cost. In the renewal mode, change is total in a whole area, and so there is a lot of cost. In the new proposal, social change is gradual and according to the residents' wishes, so there is very little social cost.
Fourth, effort. In the original mode, residents spend a lot of effort in negotiation by themselves. In the planning mode, there is nothing to spend effort on; everything is done by the government. In the renewal mode, there is a little effort required in relocation. In the new proposal, quite a lot of effort will be spent in negotiation.

On the return side, residents may be concerned with:

First, living space increment. In the original mode this is increasing, because of the developer system. In the planning mode, living space is decreasing, because of developing roads. In the renewal mode, living space also decreases, because of the higher standard of open space and public facilities. In the new proposal, living space will increase, because of the developer system.

Second, economic environment improvement. (opening shops, etc.) In the original mode, the economic environment remains the same. In the planning mode, there is some loss, because too-wide streets cannot attract people shopping. In the renewal mode, some loss of economic environment also occurs, because of reducing ground floor areas to provide open space. In the new proposal, the economic environment improves, because there is no loss of area to open space and street widening.

Third, physical environment improvement. In the original mode, the environment is poor but familiar. In the planning mode, it improves very little and only on the new streets. In the renewal mode, the
physical environment improves much more than residents can afford. In the new proposal, improvements in the physical environment are made according to the residents' ideals.

On the residents' side, there is likely to be no systematic comparison made; it is different from the government's comparison. Often, most residents only concern themselves with one of the above items, regarding it as the most important. Usually, residents only consider short-term interests, and find it hard to see long-term interests.

V. The Private Developer's Position

(* Because private developers do not have a chance to be involved in the planning and renewal modes, it is difficult to make a comparison.)

On the outlay side, the developer is concerned with:

First, risk. In the original mode, because negotiations are made and responsibilities taken by private developers themselves, there is some risk. However, in the new proposal, negotiation and responsibility are shared by other interest groups, and so, there is very little risk.

Second, money. In the original mode, they spend on a small scale, because of small lots and redevelopment areas. In the new
proposal, more money than in the original mode will need to be spent, because of more and larger areas for upgrading.

Third, time. In the original mode, redevelopment is slow and not continuous, because they negotiate with residents by themselves, and case by case. The new proposal is faster and may be continuous, because the developers do not need to negotiate with residents, and there are a lot of pieces to be redeveloped at any time.

Fourth, effort. In the original mode, developers have to make a lot of effort in the rebuilding process. In the new proposal, because the university-based group can give a lot of assistance in some aspects, developers do not need to make too much effort.

On the return side, the developer is concerned with:

First, benefit. Usually, there is a profit of 20% which applies in both the original mode and the new proposal.

Second, subsidy and assistance. The original mode offers no such assistance. In the new proposal, developers will receive some subsidies and assistance from the government and the university-based group.

VI. The University-based Group's Position

(* Because the university-based group is not involved in the
original and planning modes, it is difficult to make a comparison. In the renewal mode, comparison is also difficult, because the group is only involved in design competitions.)

On the outlay side, the university-based group will be concerned with:

First, time. One or two semesters are ideal. It needs to spend a lot of time not in the classroom.

Second, effort. The group will be concerned about how many teachers and students are involved. Most effort will be spent in communication with residents.

On the return side, the university-based group will emphasize:

First, public-education. The group tries through communication to educate the three channels.

Second, self-education. The group seeks education from communication with the three other channels.

Third, reputation. The group tries to achieve a reputation through implementing the upgrading program.

VII. Summary

The comparison in this chapter is merely my own simulation, as is the order of priority given to the items of comparison under each interest group. These results can be modified by each group in the
future.

The following chart presents a summary of this chapter. As a visual representation of the degree of contradiction between each mode and each group, a small, shaded square has been drawn. The darker the shading, the greater the negative impact on that group.
### Summary Comparison of Four Urban Development Modes

<table>
<thead>
<tr>
<th>Urban Development Modes</th>
<th>Concept Diagram</th>
<th>Concerns (in order of importance)</th>
<th>Outlay Side</th>
<th>Return Side</th>
<th>Characteristic</th>
<th>Scale of Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Original Mode</td>
<td>Spontaneous Growth</td>
<td>- Risk</td>
<td>None</td>
<td>Little</td>
<td>Small</td>
<td>Any size</td>
</tr>
<tr>
<td>II. Planning Mode</td>
<td>Small-grid Street</td>
<td>- Resistance</td>
<td>None</td>
<td>Little</td>
<td>Any size</td>
<td>Any size</td>
</tr>
<tr>
<td>III. Renewal Mode</td>
<td>Super-block Redevelopment</td>
<td>- Administration</td>
<td>None</td>
<td>Little</td>
<td>Small</td>
<td>Any size</td>
</tr>
<tr>
<td>IV. New Proposal</td>
<td>Piecemeal Growth</td>
<td>- Effort</td>
<td>None</td>
<td>Little</td>
<td>Small</td>
<td>Any size</td>
</tr>
</tbody>
</table>

#### Concerns (in order of importance)

**Outlay Side:**
1. Risk
2. R. Opposition
3. Time
4. Money
5. Administration
6. Effort

**Return Side:**
1. Political Results
2. Physical Env.
3. Economic Env.
4. Social Env.
5. Long-term View

**Characteristic:**
- Risk: None, Little, Quite a lot, Less than II.
- Administration: None, Little, More, Quite a lot
- Effort: None, Little, Quite a lot
- Risk: None, Little, Quite a lot, Less than II.
- Administration: None, Little, More, Quite a lot
- Effort: None, Little, Quite a lot

### Table Details

**I. Original Mode**
- Risk: None
- Administration: None
- Effort: None
- Risk: None
- Administration: None
- Effort: None

**II. Planning Mode**
- Risk: None
- Administration: None
- Effort: None
- Risk: None
- Administration: None
- Effort: None

**III. Renewal Mode**
- Risk: None
- Administration: None
- Effort: None
- Risk: None
- Administration: None
- Effort: None

**IV. New Proposal**
- Risk: None
- Administration: None
- Effort: None
- Risk: None
- Administration: None
- Effort: None
1. In the Liu-Hsiang case, the expenditure on urban renewal is US$30 million, and one quarter of this sum will produce no return to the government. (For details, see Ch. 3, I.) Moreover, this type of urban renewal will only resettle the original low-income residents, and so will further reduce the future return to the government. However, expenditure on the new proposal has two advantages. By using the private developer system, capital investment by the government is greatly reduced, as half of the rebuilt dwelling units will be put on the market, which promises greater return (through taxation etc.) to the government.
Chapter 8

THE PRE-IMPLEMENTATION TEST
PROCESS AND CONCLUSIONS

I. Significance and Performance of the Pre-implementation Test Process in the New Proposal

No proposal can be successfully implemented without going through a pre-implementation test process. The proposal outlined in the previous chapters, like any proposal, cannot be satisfy every interest group. Proposals provide only a model and process which can be tested. Even a proposal which seems reasonable or practical, cannot necessarily be implemented as it stands.

The significance of pre-implementation in this upgrading proposal are:

1. Reducing the risk of every group involved. Since the test applies to only a small area, the impact is more easily controlled, and every involved group can reduce their risk to a minimum.

2. Modifying the proposal through the test process. This new proposal can not satisfy every involved group. Moreover, part of the proposal is based on a simulation of the attitudes of each group. Therefore, the proposal needs to be modified by testing. For example, regulations and incentive programs can be modified by the government,
sub-division plans and arrangement of semi-private space can be modified by the residents.

3. Establishing the responsibilities and duties of every group.
Because it is new, every group is not familiar with the upgrading program. Through this test process, every group can grasp their duties and their relationships with each of the other groups.
For instance, once they have realized the position of the university-based group, the residents may cooperate with them.

4. Expanding the time frame between the presentation of the proposal and its implementation. A period of time before implementation starts will allow those involved to understand the impact of the proposal, such as, semi-private space control, land value increment, etc.. This period of time can also provide scope for further decision-making.

5. Establishing the details of implementation process and regulations.
Since the proposal provides only an outline of the upgrading process and relations, the details of the process need to be established through testing. These details include the process of negotiation among the channels, and application of the results of such negotiation.

6. Creating an example to convince every involved group. Through seeing the small-area test results, each group gains the confidence of involvement. A concrete example is important to help convince residents, particularly in an area where many residents lack knowledge to pass judgement. This point can also contribute to risk reduction.
Obviously, there will be a gap between the results of a test (done in a different place at a different time) and the eventual implementation of the whole proposal. However, the basic assumption of the pre-implementation test process is that the gap between proposal and implementation can be reduced by this process.

There are different degrees of realism in a test performance, ranging from role simulation (low degree), through actual representatives' performance, to small-area experiment (high degree). I consider, the most useful process of pre-implementation is to gradually pass through these different degrees of test performance. (See following diagram)

Some principles of pre-implementation need to be considered:
- The area of the test should be as small as possible. This can keep
the impact and risk to a minimum. But it should not so small as to be meaningless.

- The time-frame of the test should be as long as possible. This gives time to see the results and to modify the proposal.
- The alternatives tested should be as many as possible, to ensure flexibility in modifying implementation.

In past years, this pre-implementation stage has often not been given enough attention, in terms not only of the different degrees of test realism, but also of the lack of time devoted to this process. As a result, proposals lack flexibility for modification. I strongly consider that the pre-implementation process is very important for every new proposal before implementation. Sometimes, of course, time and cost limit the pre-implementation process.

II. Roles Simulation by Individual Interest Groups

Pre-implementation testing involves different degrees of reality. The lowest degree of test -- roles simulation -- has been carried out to modify the new proposal.

On December 15, 1979, when my primary proposal had been formed, I invited fifteen friends to play the game -- roles simulation. Everyone chose one of four roles, (representing the government,
residents, private developers, and the university-based group) to simulate what concerns each group and what kinds of interaction and argument would take place. In the beginning, I introduced the Liu-Hsiang project, and the different views of each group. After that, I presented my basic concepts and primary proposal. Then, there was a long period of discussion and argument. Some concerns which were raised, included: "How much advantage the government could see in the new proposal compared with their own urban renewal proposals, and how could the government implement the new proposal?", "How much money the residents needed to spend, and how many square meters living area would they receive?", "What profit would private developers make, and how could the incentive program be applied?", "How the university-based group could achieve its position as coordinator, and how much power would they have?"

From this first-round, low-degree, simulation test some points of argument and concern stimulated me to modify the primary proposal. These modifications including some ideas for comparison between different groups, minor changes in design guidelines, and the rebuilding program, consideration of alternatives for taking care of tenants, and some ideas for pre-implementation. I found the simulation test was worthwhile and useful. Given limited resources, time, data, and considerable distance from the site, this simulation is the first and only level of testing which I can carry out. However, this kind of simulation can be made in several rounds, and even simulated by representatives from different individual interest groups. For
instance, this time it was done by persons who might comprise the university-based group. Perhaps next time, simulation can be made by persons from the government sector, and so on. Of course, such simulation can be done at different degrees, and be formal or informal depending on the situation of every individual interest group.

III. Interaction by Interest Groups

After separate simulation by individual group, the next step is interaction of all four interest groups together. The significance of the earlier individual simulation is:

(1) Understanding the new proposal and also thinking about the responses of the other groups.

(2) Exploring and modifying the new proposal by a group of participants who have the same interests.

However, the significance of simultaneous interaction by the four groups is:

(1) Realizing the "real thinking" of every group, and influence and re-modification through these interactions.

(2) Getting a compromise agreement for small-scale test implementation by discussion and interaction.

There are two forms for interaction. First, the records of the last section's simulations are exchanged. Every group can re-modify
"their thinking" after this exchange. This can be done in two or more rounds of interaction only by the exchange of papers. Second, face-to-face meetings of representatives will be held. At this stage, they provide the opportunity for direct interaction and further challenge.

Since a lot of time can be wasted in the interaction by exchanging papers and in the possible inefficiency of face-to-face meetings, I suggest that, there the university-based group can provide a "total studio" (For its composition, see ch. 5, I.) for assistance. This studio can organize and help each group to understand the new proposal, discuss and record the thinking of each group, hasten the exchange of papers, and arrange face-to-face meetings, and raise the meetings' efficiency.

I consider, the "total studio" is also a first step for testing both the ability of the university-based group as a coordinator, and the interactions among these four interest groups.

IV. Experiment in One Small Area

If the government considers the proposal, modified by simulation and discussion, is worthy for experiment in one small area, the following process should be followed:

1. Convincing the City Mayor, getting his agreement, and also getting inter-departmental support.
2. Explaining to the regulatory committees (at city and central levels), getting their approval of temporary regulations for the experiment.

3. Convincing the parliament, get their approval of the experiment's budget.

4. Deciding on one small division-unit (For principles of selection, see Ch. 6, II,) for experiment. The university-based group goes into the experimental area to discuss the test with residents and help them to form a group.

5. Selecting one private developer for test rebuilding using the proposal's incentive program. The university-based group will also discuss the test with the developer.

6. The university-based group invites the other three groups to get together for further discussion of the details of the experiment. A contract among the groups is drawn up.

7. Starting the process of test rebuilding. The university-based group records and reports on this whole process of experiment, making recommendations for full-scale implementation.
V. Evaluation, Remarks, and Conclusion

Project Evaluation

If this new proposal seems practical, and the small-scale experiment has been done, how can the government or other groups know whether this experiment has been successful or not? Even after implementation, how can the project be evaluated? What are the method and criteria to be used in evaluation? This kind of question I also tried to ask government officials; particularly how they would evaluate the case of Liu-Hsiang. (See Appendix 1, II. and comment in Ch. 4, V.)

Theoretically, the methods of evaluation, comparison, and decision-making are very similar. The method of comparison of the four interest groups used in chapter 7, can also be applied to this project evaluation. Again, we can take the concerns of the interest groups as the criteria for evaluation. Of course, the weights given to the different groups by the government and to different items of the groups can still be used. I believe, this method of evaluation will encourage an objective assessment.

Remarks

Given a conviction that the proposal is reasonable, the following issues need to be addressed:

1. Realizing the actual contents and methods of this thesis is important.

   An open mind to the proposal is essential. Feelings that a participatory approach is impossible in Taipei, should be tested against reality.
2. Trying to get temporary regulations for a small-scale experiment is very important. Without the support of these regulations, everything is impossible. Such support should be sought as soon as possible. It is if the City Mayor who has the power to change regulations.

3. Establishing the coordinating position of the university-based group is important. The residents may not appreciate the position of the university-based group, and the government may not feel they can trust the ability of the university-based group. However, the university-based group is, in my view, the only possible group which can perform the role of coordinator. (For reasons, see Ch. 5, I.)

4. Modifying the new proposal by the pre-implementation test process is necessary. The above proposal is only a starting point in the improvement of the Old-City which will not be easy nor quick. In the pre-implementation discussions, the efficiency of face-to-face meetings can be increased by a supplemental group communication process. I consider that the feasibility of the modificatory principle is important.

Conclusion

Underlying the whole thesis is the assumption that different interest groups have different points of view. The involvement of every interest group will help provide a satisfactory environment, even at the level of comparison, evaluation, and decision-making. I believe that participation is the key issue of improvement to the Old-City in Taipei.
Finally, I would propose that, for long-term upgrading in the Old-City, we should carefully think about the ways to carry out urban renewal. The scale of renewal, may not be the only factor to be considered. The methods used in urban renewal also need to be assessed.
Appendix 1

SUMMARY OF INTERVIEWS OF THE FOUR CHANNELS
IN THE SUMMER OF 1979

I. Residents of Liu-Hsiang Area

Method: I tried to use anthropological methods, interviewing seventeen families, recording the individual story for each of them. Before each interview, I tried to make friends with them, and chatted with a group of residents, telling them who I was and what I wanted. Then, I made an appointment to visit each of them after dinner. Usually, I went with a close friend, and we spent one evening with each family. Three of us chatted together in the local dialect. I prepared notes before each interview. (For contents, see below.) A small tape recorder was used. After conversation, we took photographs and sketched the living space and interior.

Notes for Interviews:
0. To explain my purpose of interview, then chat with him/her.

1. Background
   - Life history, family size, and background.
   - Working situation, including: work place, duty, income, satisfied or not? why? any other skill etc..
   - Family income and expenditure, other resources.
   - Daily activity (weekday/weekend) and life style.
2. Living environment

- Type of tenure and family living conditions (activity/space).
- Describe the changes or wishes for changes in living conditions. Why? How?
- Describe the environment of the neighborhood.
- Describe the changes or wishes for changes in the neighborhood environment. Why? How?
- What priorities do you have for improving these living environment? Why? What degree of improvement? How?
- In general, what are your feelings about your living environment?

3. Local activity

- What happens and what do you think about the neighborhood meetings? Why?
- What happens and what do you think about local religious activities? Why?
- What happens and what do you think about the local elections? Why?
- Do you have any other social activities or problems? Why?

4. Discussion about environmental improvement

- What happens and what do you think about the existing urban renewal plan?
- What are your concerns on the outlay and return sides?
- What do you think about this model? Have you any suggestions?
Interviewees: In the beginning, I confronted the issue of how to select a sample. First, from observations and chatting with the residents and local officials, I tried to find different interest groups, formal and informal, in the neighborhood. Because of the existing renewal project, two groups were obvious opponents and supporters. Other groups included formal, official associations, and informal, religious groups. I also tried to find the key person in the group. Second, I was concerned to include several categories of resident in the sample. 1. Tenure: owner, renter, illegal (See Ch. 2, III.); 2. Occupation: worker, vendor, shopkeeper, official, etc.; 3. Income: high (above average), middle (average), and low (below average); 4. Family size: large (over 6 persons), middle (4 - 6 persons), and small (under 4 persons); 5. Living space: enough or not; 6. Age of interviewees: old (over 50 years old), middle (30 - 50 years old), and young (less than 30 years old); 7. Education of interviewees: high (beyond obligatory education), middle (non-illiterate), and low (illiterate).

Following is a list of the interviewed residents.
<table>
<thead>
<tr>
<th>No.</th>
<th>Tenure</th>
<th>Occupation</th>
<th>Income</th>
<th>Family Size</th>
<th>Living Space</th>
<th>Age</th>
<th>Education</th>
<th>Opinion of Urban Renewal</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owner</td>
<td>Ice vendor</td>
<td>Low</td>
<td>Middle</td>
<td>Not enough</td>
<td>Middle</td>
<td>Low</td>
<td>Oppose</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Owner</td>
<td>Printing works</td>
<td>High</td>
<td>Small</td>
<td>Enough</td>
<td>Middle</td>
<td>Middle</td>
<td>Support</td>
<td>Head of neighborhood</td>
</tr>
<tr>
<td>3</td>
<td>Owner/illegal</td>
<td>Motor shop</td>
<td>Middle</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Middle</td>
<td>Strongly oppose</td>
<td>Leader of opposition</td>
</tr>
<tr>
<td>4</td>
<td>Owner</td>
<td>Drug store</td>
<td>Middle</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Middle</td>
<td>Strongly oppose</td>
<td>&quot;</td>
</tr>
<tr>
<td>5</td>
<td>Illegal</td>
<td>Box works</td>
<td>Middle</td>
<td>Large</td>
<td>Not enough</td>
<td>Old</td>
<td>Low</td>
<td>Oppose</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Owner</td>
<td>Cook</td>
<td>Middle</td>
<td>Large</td>
<td>Enough</td>
<td>Middle</td>
<td>Middle</td>
<td>Oppose</td>
<td>Head of religious</td>
</tr>
<tr>
<td>7</td>
<td>Owner</td>
<td>Grocery</td>
<td>Middle</td>
<td>Small</td>
<td>Enough</td>
<td>Old</td>
<td>Middle</td>
<td>Strongly support</td>
<td>Influencial supporter</td>
</tr>
<tr>
<td>8</td>
<td>Illegal</td>
<td>Ice shop</td>
<td>Low</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Low</td>
<td>Strongly support</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Owner</td>
<td>Government employee</td>
<td>Low</td>
<td>Small</td>
<td>Enough</td>
<td>Middle</td>
<td>Middle</td>
<td>Oppose</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Owner</td>
<td>Electrician</td>
<td>Middle</td>
<td>Small</td>
<td>Enough</td>
<td>Young</td>
<td>High</td>
<td>Support</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Illegal</td>
<td>Taxi driver</td>
<td>Low</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Low</td>
<td>Oppose</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Owner</td>
<td>Assembly-man</td>
<td>High</td>
<td>Large</td>
<td>Enough</td>
<td>Middle</td>
<td>High</td>
<td>?</td>
<td>Big ownership of land</td>
</tr>
<tr>
<td>13</td>
<td>Owner</td>
<td>Iron works</td>
<td>Middle</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Low</td>
<td>Strongly oppose</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Illegal</td>
<td>Business (?)</td>
<td>High</td>
<td>Large</td>
<td>Enough</td>
<td>Middle</td>
<td>High</td>
<td>Oppose</td>
<td>Head of neighborhood</td>
</tr>
<tr>
<td>15</td>
<td>Owner</td>
<td>Government employee</td>
<td>Middle</td>
<td>Small</td>
<td>Not enough</td>
<td>Young</td>
<td>High</td>
<td>Support</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Renter</td>
<td>Barbershop</td>
<td>Low</td>
<td>Large</td>
<td>Not enough</td>
<td>Middle</td>
<td>Low</td>
<td>Don't care</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Owner</td>
<td>Night-market vendor</td>
<td>High</td>
<td>Large</td>
<td>Not enough</td>
<td>Young</td>
<td>High</td>
<td>Support</td>
<td></td>
</tr>
</tbody>
</table>

**List of Interviewed Residents**
Two examples of interviewee families

No. 1 Ice vendor (Attic and left side of 1st floor)
No. 3 Motor shop owner

SECTION

Arcade Shop

ventilation window

70 cm

PLAN

GROUND FLOOR

ATTIC

Arcade

P.V.C. awning

Expanding kitchen

Shop

owner's sleeping place

wooden partition

Apprentice's room

vertical ladder
II. Government Officials

Method: I worked in the City Government, City Planning Department, studied the existing data from urban renewal, especially on the case of Liu-Hsiang. I participated in the Liu-Hsiang Renewal Project, attending official meetings, at different levels, and also, interviewed government officials at different levels. I tried to grasp the attitude and structure of the government.

Notes for interviews
1. What are the goals of urban renewal?
2. What are the methods of urban renewal in the Old-City? Why?
3. Taking the past cases of Hua-Chiang and Nan-Chi-Chang, do you think the results are successful or not? How would you evaluate these projects? What are the criteria?
4. Taking the present renewal project in Liu-Hsiang, only 3.9 ha., there is NT 10 billion dollars investment by the government, one quarter of which provides no return. Do you think this is worthwhile? What do you think about this case? What is the key problem of this project, and what is your attitude?
5. Taking cases of urban renewal in the United States, especially from the early 50's, what do you think of their urban renewal? and what are the difference with Taiwan's?
6. What do you think residents think about urban renewal? Why?
7. Do you think that you need other approaches to urban renewal? Why?
What do you think about four channels being involved in urban renewal? What are the problems of this participatory model?

8. What is the long-term program of urban renewal? Why?

9. Taking your position, what do you feel about urban renewal? What is the next step? What is the future?

Interviewees: In Taiwan there are three levels of government -- Center, City, and District. I focused on the city government level, especial the Planning Department. The officials interviewed are listed below:

1. Central level
   Construction Bureau:
   Chang Lung-sheng (張隆盛) -- Director.

2. City level
   Planning Department:
   Lin Chiang-tsai (林時財) -- Director.
   Tsou Ts'ung-chieh (卓廷哲) -- Deputy-director.
   Lin Ssu (林司) -- Urban Renewal Section head.
   Ho Fang-tzu (何芳子) -- Urban Renewal Project manager.
   Urban Renewal officials.
   Social Affairs Department:
   Community Development Section Head.
   Civil Affairs Department:
   Neighborhood Section head.

3. Local level
   Shuang-Yuan District:
Lin Tsan-mu (林榮木) -- Director.
District official (民政課長).
Neighborhood official (極區里幹事).
Local policeman (警員).

III. University-based Group

Method: I interviewed professors in different fields, including political science, sociology, planning, and so on. In addition, I invited two fifth-year architectural students to work with me for part of the summer. I tried to test what they felt about this "total studio".

Notes for Interviews: (Discussion based on interviewee's point of view)
1. The urban renewal program in the Old-City of Taipei.
2. The problems of the Old-City's improvement.
3. Comments about the concepts of the participatory model.

Interviewees: (University professors)
1. Planning: Li Jui-lin (李瑞麟), Hsin Wan-chiao (辛婉桃), Wang Hung-k'ai (王宏 Traff), Chang Shih-tien (張世典).
2. Architecture: Chung Tse-huan (中澤賢), Pan Chi (潘賢), Pai Chin (白瑾), Wang Li-fu (王立甫), Hsia Chu-chiu (夏錦九).
3. Sociology: Chang Hsiao-ch'un (張曉春), Lin I-hou (林岳厚), Ch'en Hsiao-hung (陳小紅).

4. Political Science: Hu Fo (胡佛), Yao Jung-lin (姚榮麟).

5. Anthropology: Wen Ts'ung-i (文崇一).

IV. Private developers

Method: I discussed the existing renewal efforts in Liu-Hsiang with them, and tried to understand the developers' problems and concerns in the Old-City's rebuilding. I interviewed private developers and architects, but unfortunately, I was not able to interview a builder.

Notes for Interview

For questions asked and results of these interviews see Ch. 6, I.

Interviewees:

1. Private developer: Yeh T'iao-hui (葉條輝) — Company President, Company Manager.

Appendix 2

MAPS OF THE STRUCTURE OF THE LIU-HSIANG AREA
(Scale: 1: 2000 m)

1. Administrative Boundaries
2. Existing Streets
3. Planned Streets
4. Land Utilization
5. Land Tenure
6. Legal Status of Houses and Land
7. Height of Buildings
8. Age of Buildings
9. Construction Type of Buildings
10. Results of Resident Opinion Survey
    -- For the existing urban renewal program
LIU-HSIANG AREA
Planned Streets

1:2000 M

Shui River

a-Chang Bridge

Lon-Shan Primary School

Kuangchow St.

Ho Ping W. Road

Kuet Lin Road
LIU-HSIANG AREA

Results of Residents Opinion Survey
(For the Existing Urban Renewal Program)
APPENDIX 3

Illustrations

- Impact
- Environment
- Dwellings
- Activities
- Interviews
IMPACT (from beyond Liu-Hsian)
ENVIRONMENT

Alleys

Roofs

Corner
Dwellings

Stairway

Attic

Hallway

Altar

Kitchen
ACTIVITIES

Narrow Alleys for Children's Play

Riverfront Playground

Iron Works
INTERVIEWS

Interviewed Residents

Discussion
SELECTED BIBLIOGRAPHY

Major References


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5. Taipei City Planning Department, Regulations for Urban Renewal in Taipei, Taipei (都市計畫處), 1979.


References in English


