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The Use of Domestic Space in Migrant Houses

A Case Study of Zhejiang Village in Beijing

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements of the degree of Master of Architecture

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ABSTRACT

In the last two decades, China's economic reforms in general, and rural reforms in particular, have had an immense effect upon China's urbanization patterns. A large rural surplus labor force has transformed itself into irresistible migration waves sweeping across most of China's big cities.

An essential question is how could Chinese cities avoid going through the same process of trial and error as other Third World cities, or what are the feasible ways to accept and integrate migrants within the existing urban systems. The answer to this question could only be explored to a large degree by examining the current situations in existing migrant communities.

This thesis focuses on the study of the use of domestic space in migrant houses as a means to examine the question from an architectural perspective. A case study of Zhejiang Village, the most influential migrant community in Beijing has been conducted. From 30 survey samples, 15 are analyzed according to the range of economic activities pursued by the migrants. Two other samples from Zhejiang vernacular houses are also examined in order to conduct a comparative study. Detailed drawings and analysis are arranged to show how ingeniously they combine their businesses within their meager domestic space.

The study shows that economic activities and cultural traditions are the vital factors that influence the use of domestic space in migrant houses. It also confirms that the physical integration of migrants must take into account their cultural background and spatial traditions.

RÉSUMÉ

Au cours des vingt dernières années, les réformes économiques en général et les réformes agraires en particulier ont considérablement influencé les modèles d'urbanisation en Chine. L'important excédent de main-d'oeuvre rurale s'est transformé en d'irrésistibles vagues migratoires qui déferlent sur la majorité des grandes villes Chinoises.

La question essentielle que soulève ce nouveau problème est comment les villes Chinoises pourront-elles éviter de procéder par tâtonnements comme l'ont fait les autres villes du tiers-monde ou, en d'autres termes, par quels moyens pourra-t-on accepter et intégrer les migrants dans le cadre des systèmes urbains existants. Pour répondre adéquatement à cette question, on doit explorer en détail les problèmes migratoires actuels et, plus particulièrement, les communautés migratoires elle-mêmes.

Cette thèse met l'accent sur l'étude de l'utilisation de l'espace domestique dans les habitations des migrants d'un point de vue architectural. Une étude de cas du "Village Zhejiang", la plus importante communauté migrante de Pékin, est réalisée. Quinze des trente échantillons relevés sont analysés selon l'éventail des activités économiques exercées par les migrants. Des dessins ainsi qu'une analyse détaillée sont réalisés afin de démontrer l'ingéniosité des migrants qui réussissent à associer la conduite d'affaires et l'occupation d'un espace domestique restreint.

L'étude démontre que les activités économiques et les traditions culturelles sont deux facteurs vitaux qui influencent l'utilisation de l'espace domestique par les migrants. Elle confirme également que l'intégration physique des migrants doit tenir compte de leur identité culturelle et de leur utilisation traditionnelle de l'espace.

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Part II Case Study

Introduction

The ever increasing informal settlements in the urban areas have frustrated many developing countries for years. But in China, this remarkable social transformation is only a recent phenomenon. Since the beginning of this decade, articles on migration problems in China's big cities have begun to appear in various newspapers and magazines. In particular, a large-scale clearance of Zhejiang Village (*Zhejiangcun*) in November 1995[1] has attracted the attention of the Western World to China's migration problems. Most of the discussions have been focused on Zhejiang Village. Some concern its social impact, and some are related to its serious environmental problems. Many articles have been written from the sociological or demographic point of view. However, relatively few of them refer to academic research. Thus, the motivation of this study arises from the growing impact of the recent migration problem in China, and the lack of full understanding of the real situation.

The Research Problem

Since the early 1980s, China's economic reforms in general, and rural reforms in particular, have brought tremendous changes to China's urbanization process and population migration pattern in the last two decades. The implementation of decollectivization (or reparcellization of farmland) and the household responsibility system in rural areas[2] have created an enormous surplus labor force to be transferred.[3] Moreover, the adjustment of the original policies

[1] Zhejiang Village, also called *Zhejiangcun* in Chinese, is one of the most influential migrant communities on the periphery of Beijing. On November 10th, an evacuation order was issued by the Beijing municipality to clear out all the illegal migrant houses. By November 22nd, 1432 illegal houses in Zhejiang Village had been demolished; 22 of the 47 residential courtyards of the migrants had been evacuated. 700 man-powered pedicabs had been banned. Source: *Beijing Ri-bao* (*Beijing's Daily*), November 28, 1995.

[2] For more information, please see Chapter 2.2, or refer to *China Review*, eds. Kuan Hsin-chi, Maurice Brosseau (Hong Kong: The Chinese University Press, 1991), articles 10 and 12.

[3] It is estimated that China only needs 200 to 220 million agricultural laborers at the current production level, but the actual situation is that China currently has 450 million rural laborers which means that more than half of them are surplus. Besides, this number is increasing at an

and the reorganization of the social system have reduced the government control over population movement in China. As a result, most of China's urban areas, especially large urban centers and some special economic zones were suddenly full of migrants from all directions without any preparation. The spontaneous rural-urban migration[4] has become an irresistible force in many of China's big cities. It was estimated that in 1990, the total floating population[5] in China was nearly 70 million.[6]

Migrants come to the cities searching for jobs and opportunities to better their lives. Most of them migrate for economic reasons.[7] They tend to live together and be engaged in various economic activities. Thus many migrant communities have formed on the periphery of the big cities. Several such migrant communities have also emerged on the periphery of Beijing since 1981. These communities are often named after the home provinces of the majority of migrants living in these communities, such as Zhejiang Village, Xinjiang Village, and Anhui Village. These migrants have, to some degree, motivated the economic development and prosperity of the cities. However, at the same time, their arrival has caused many conflicts and problems.

As has happened in other developing countries, the migrant communities in China are now regarded by the governments and the urban affluent as "belts of

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annual speed of 12 million. Therefore, the migration problem will inevitably be a long term and serious problem in China. For detailed information, please refer to Li, Qing , "On the migration of surplus rural labor force," *China City Planning Review*, Vol. 11, No. 4 (April 1995): 8-11.

[4] Under the socialist planning economy, population migration was strictly controlled. Spontaneous rural-urban migration has emerged and expanded only after the economic reform. For more details, see Xie, Jinyu, *et al*, "Comparative studies on the planned rural-urban migrants and spontaneous rural-urban migrants in China", *China City Planning Review*, Vol. 8, No. 4 (December 1992): 25-41.

[5] The floating population defined in China's Fourth National Census includes three categories: A). Those who have stayed in a certain county or city for over a year, but are still registered as permanent residents of other places; B). Those who have left the place where they are registered as permanent residents for over a year, but not yet reside in any other cities or towns for a year; C). Those whose permanent resident applications have not yet been approved. For detailed explanation see ibid., 25-26.

[6] Zhang, Qingwu, "Zhong-guo Liu-dong Ren-kou Fa-zhan de Jin-cheng ji Dui-ce(The Process and Strategy of the Development of Floating Population in China)" *Ren-kou yu Jing-ji (Population and Economy)*, No.6 (1991): 32-36 (in Chinese).

[7] For detailed explanation, see Chapter 2- 2.2.1.

misery, cancerous sores, sources of disease and violence."[8] Thus, eradicating them by means of clearance is seen as the only viable solution. However, through years of trial and error in many other countries, this view has been changed, and along with it, many government policies have already been shifted from clearance to tolerance, even searching for feasible ways to integrate migrants into the urban systems. In addition, many studies have also demonstrated that the creative and positive attitude of the migrants shown, for example, through their enthusiasm for starting and managing their own businesses and combining varied economic activities within their limited domestic spaces, is very impressive.

Throughout history, a house, as a protection from the natural forces and as a domestic milieu for various activities, has always been of great concern to its inhabitants. Houses are built to provide domestic space to be used by the inhabitants. "We live in a space that (we) ourselves help to create. But, vice versa, it is the space in which we find ourselves living which will shape our lives, taste, style and feelings (Panikkar 1991: p18)." A house, whether it is situated in a traditional, vernacular, or spontaneous settlement, always illustrates varied uses of space which are determined by its inhabitants and their cultural backgrounds (Ghosh 1994: p15). Many studies in this field have shown that the use of domestic space is not a simple phenomenon influenced by any single factor, but is rather a reflection of the interrelationship among different social, economic and cultural factors. However, in the past several decades, China has followed the former Soviet Union's pattern, and created an "ideal" communist living model by separating the working section from the living section without considering any influential factors or special needs of the inhabitants, a model which has already been proved to be a failure. In the book *Modernity of Housing*, Peter Rowe writes, "Housing was to be built around real clients involving their direct participation and requirements."[9] The existing problems in modern housing make us to have some insight nto the traditional living style and domestic space utilization pattern

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[8] Lloyd, Peter, *The 'Young Towns' of Lima--Aspects of urbanization in Peru* (Cambridge: Cambridge University Press, 1980), preface, vii.

[9] Rowe, Peter G., *Modernity of Housing* (Cambridge: MIT Press, 1993), 227

in vernacular houses, as well as in migrant houses of spontaneous settlements which are so dynamic and successful.

Zhejiang Village is one of the most influential emerging migrant communities on the periphery of Beijing. The majority of migrants in this community come from Wenzhou area of Zhejiang Province where there is a strong business orientation and cultural tradition. For economic reasons, living has a very low priority[10] on the list of needs of the migrants. Nevertheless, they have demonstrated their ability to create various domestic spaces to meet the basic needs of their daily routines and special activities to generate income. For instance, while most of the migrants in other communities live in various rental houses and do not have much freedom to modify their domestic spaces, more than half of the migrants in Zhejiang Village live in such migrant houses that are administered or even owned by the migrants. The use of domestic space in migrant houses in Zhejiang Village mainly reflects the compromise between the economic activities and the essential daily activities of the migrants, as well as the substantial influence of their cultural traditions.

Many scholars have tackled various spatial studies in traditional and vernacular houses, and some are related to spontaneous settlements. However, few books have dealt with the issues of domestic space utilization in migrant houses, and almost none of them are related to the situation in socialist countries. Hence, the purpose of this thesis is first to understand the emerging migration problems in Beijing, and then to identify the vital factors which influence the use of domestic space in migrant houses in Zhejiang Village.

To undertake this study, the following research questions are formulated:

1. What are the physical features of Zhejiang Village?

2. How do the economic activities and cultural conventions influence the use of domestic space in migrant houses in Zhejiang Village

[10] For economic reasons, living had once had a very low priority in Chinese national policy. Big proportion of money was allocated to industrial and other use. People were told to be patient and tolerant to live in crowded and deteriorated houses, in order to save money for nation's economic booming. Primarily, the migrants' consideration is just in accordance with the national policy. However, ironically, the former one is regarded to be strange and unacceptable in current China.

Scope of the study

The research is based on the primary resources obtained by the author from the field survey of Macun, the central part of Zhejiang Village. Among many housing categories in this area, this thesis is primarily focused on the following two categories: rental houses from the Zhejiang natives (or migrant residential compounds), and the self-built houses of the migrants. There are many factors which might influence the use of domestic spaces in Zhejiang Village. This study, however, is only partly focused on the cultural and economic aspects, being essentially an architect's point of view. Other related factors, those which are social, and environmental, for example, are beyond the scope of this study. Wherever relevant, such factors may be referred to, but not in detail.

Thesis Organization

This thesis is organized into two parts and five chapters plus the introduction and concluding remarks. The **introduction** discusses the research problem, the scope of the study, and the organization of the thesis. Part **I** presents a literature review of the research topic, consisting of two chapters. **Chapter one** reviews the previous studies of the use of domestic space in general, in traditional domestic buildings, and in migrant houses in informal settlements. **Chapter two** gives an overview of the emerging migration problems in Beijing.

Part **II** is the main body of the thesis. It contains three chapters. **Chapter three** discusses the choice of the site, the survey methodology, and the organization of the survey. **Chapter four** first examines the social background and physical features of Zhejiang Village. Then it analyzes some general findings in several different aspects, such as the economic activities and housing alternatives. **Chapter five** presents 15 selected samples out of 30 surveyed migrant houses according to the range of economic activities. Two other samples

from Zhejiang vernacular houses are also examined in order to conduct a comparative study. Some detailed findings are provided in tables based on the analysis of available data. The **concluding remarks** are made at the end of the thesis.

Part I Literature Review

Chapter 1
The Study of Space Utilization in Domestic Buildings

1.1. Introduction

The study of the relationship between domestic architecture and the use of space has been an interesting topic for architects, anthropologists, geographers, historians, sociologists, psychologists, and many other scholars in related fields around the world and through time. It would be arduous and unnecessary to compile an exhaustive list of the whole array of notions and methods for the study of the meaning and use of domestic space. Nevertheless, within this context, it is noteworthy to review some of the research which can serve to highlight the merits and pitfalls of the studies in this field. Therefore, this chapter provides an overview of several different approaches in the study of the use of domestic space, such as the behavioral-environmental, cultural, economic and spatial interpretations. A review of these interpretations will help to build a more comprehensive approach in order to understand the use of domestic space in two vernacular house types: Zhejiang vernacular house and Beijing courtyard house, as well as that in migrant houses of informal settlements.

1.2. Domestic space and its utilization in general

Literally speaking, domestic space refers to various spaces in domestic buildings (such as houses) which are used primarily for domestic activities. There are many studies about the fundamental issues of the interaction between domestic architecture and the use of space and the factors affecting it. One of the well-known pioneers of the type of research, from a cross-cultural perspective, is

Amos Rapoport with his work dating from as early as 1969. Rapoport defines space as 'human' and 'non-human' or 'designed' and 'non-designed'. 'Human space' could also be regarded as architectural or behavioral space which expresses the relationship between human behavior and the built environment, while 'non-human' space refers to geographical or physical space.

A house is always the main symbol for being in the world. It provides proper space for people to live and handle things. In vernacular houses, "the craftsman is a shaper of space where people can breathe, live and enjoy. This space is an expression of the genius of a person, a generation or a culture (Panikkar 1991: p17)." House form and domestic life are ordered by the customs, habits and classification categories of the inhabitants. As professor Norbert Schoenauer has noted in the book *History of Housing* that even at the primitive stage of human dwellings, the slight differences in cultural inheritance and mode of life can bring about considerable changes in house form and the use of space (Schoenauer, 1992: p11). The use of space in domestic dwellings is not decided by any single factor. It reflects the interrelationship of many factors, among them being the cultural traditions, religious beliefs, family structures and ways of gaining a livelihood.

Many scholars have studied this issue with different approaches. Donald Sanders, for example, believes that human behavior influences the organization of the built environment, and the built environment influences behavior. Each can be modified by the other.[11] Seeing from a more ecological perspective, Sanders summarizes seven factors that influence the shape of houses, their decoration, their placement within the community, and their use by residents and visitors, which are: climate, topography, available materials, level of technology, available economic resources, function and cultural conventions. He also classifies the seven factors into the following three categories[12]:

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[11] Sanders, Donald, "Behavioral conventions and archaeology: methods for the analysis of ancient architecture," Chapter 5, *Domestic architecture and the use of space -- An interdisciplinary cross-cultural study*, ed. Susan Kent (Cambridge: Cambridge University Press), 43-44.
[12] Ibid., 44.

Table 1.1 Distribution of factors that influence the house type and the use of domestic space

Naturally fixed	flexible	Culturally fixed
Climate	Available materials	Function
Topography	Level of technology	Cultural conventions
	Economic resources	

Source: Sanders, Donald, 1990, table 5.1, p.44.

Sanders considers climate and topography as two determinants that are fixed by natural conditions at the outset of construction. The next three determinants (available materials, level of technology and economic resources) are placed in the "flexible" category, because their degree of influence on the organization and use of domestic structures can vary greatly even under constant climatic and topographic conditions. In the third category, building function and cultural conventions are known as culturally fixed determinants. According to Sanders, of all the seven factors, cultural conventions influence architectural form and the use of space more than do economic and other factors.[13]

Rapoport also believes that human activities are direct expressions of lifestyle and ultimately, of culture. He points out that reasons for the great number of house types that are not easily understood in the context of relatively few climatic types, limited number of materials, or other physical factors, become much clearer if viewed as expressions of ideal environments reflecting different world views and ways of life (Rapoport, 1969: 49). "Once the identity and character of a culture has been grasped, and some insight gained into its values, its choices among possible dwelling responses to both physical and cultural variables become much clearer. The specific characteristics of a culture -- the accepted way of doing things, the socially unacceptable ways and the implicit ideals -- need to be considered since they affect housing and settlement form (*Ibid.*, 46~47)." He also writes in the same book that even the subtle influence of the social-cultural

[13] Ibid., 4 and 44-47.

forces may affect the way we behave, and consequently the houses and settlements in which we live and how we use them (*Ibid.*, 49).

Susan Kent attempts to establish an evolutionary cross-cultural perspective of the use of space and architecture as influenced by a group's sociopolitical organization. To explore why people partition their domestic architecture differently, Kent built a research model which has two basic components[14]: first, the social complexity determines the organization of space and of the built environment, particularly with respect to partitioning or segmentation. Second, as a society becomes more sociopolitically complex, its culture, behavior, or use of space, and cultural material or architecture become more segmented. She tries to show that the use of space and architecture is specifically a reflection of the sociopolitical organization of a society. In her opinion, behavior can be viewed as a reflection of culture, and cultural material such as architecture, is a reflection of behavior, and ultimately, of culture.

"Architecture creates boundaries out of otherwise unbounded space, while the use of space can be seen as a means to organize that unbounded space."[15] Architects tend to assert that the building forms are major determinants of the use of space, and often complain that the inhabitants do not use the designed space properly. Studying from a historic point of view, Roderick J. Lawrence presents an important attempt to combine individual's use of space with architectural design.[16] He points out that the relationship between habitat and resident is dynamic or changeable, and it includes factors (in the architectural design) which may remain unsolved over a relatively long period of time. He offers two principles to help understand the behavioral interpretations of people and buildings[17]: (1) houses are invariably shared domains, which reflect consensus

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[14] Kent, Susan, "A cross-cultural study of segmentation, architecture, and the use of space", Chapter 9, *Domestic architecture and the use of space*, ed. Susan Kent (Cambridge: Cambridge University Press), 127.
[15] Ibid., 2.
[16] Lawrence, J. Roderick, expresses his point of view about the interrelations between behavioral and spatial dimensions of a house in "Public collective and private space: a study of urban housing in Switzerland", Chapter 6, *Domestic architecture and the use of space*, ed. Susan Kent, 73-92.
[17] Ibid., 74.

decisions about furnishing and uses, particularly in rooms which are not reserved for personal activities; (2) although there are cultural predispositions for the layout and use of domestic space with cultures, it is common to have sub-cultures and social sub-groups, and variations in the organization of domestic space reflect this diversity.

Lawrence introduces Chermayeff and Alexander's concept about the private, collective, and public domains to explain the spatial interpretations of people and buildings. He emphasizes that boundaries (between different domains) are not just created physically but also ordered by symbolic and juridical parameters which are transient in kind.[18] He also points out that to limit the analysis of domestic architecture to a study of its configuration would be quite misleading because the meaning and the utilization of domestic space are not solely dependent on its form. "Therefore, an analysis of the meaning and use of domestic space ought to distinguish between the spaces, objects, and activities therein *and* the sets of distinctive or differential features which invest them with meaning (Lawrence, 1990: p 77)."

The concept of a boundary is fundamental for analysis of domestic space. "The type of space a boundary partitions, depends on the culture and time period it occurs in and can range from inner-outer and public-private space to sacred-profane and to ours-theirs (Kent 1990: p2)." Obviously, without an inner space there will be no real outer space, and nothing will influence the outer if it does not come from the inner. The reverse is equally true; "the outer shells somebody else creates -- and we are all interrelated -- will also condition our interior (Panikkar 1991: p17)." However, at the primitive stage of human history, mono-functional domestic space hardly existed. In William Adams' review of Susan Kent's book *Analyzing Activity Areas*, he writes, "I think that the number of mono-functional activity areas is directly proportional to the size of the structure and number of occupants. A small house like *hogan*, must have multiple function areas (Adams 1987: p106)."

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[18] Ibid., 76.

The organization and utilization of domestic space is based on various space traditions. Undoubtedly, the constraints of climate and natural setting will have some impact on space traditions, but more deeply they are molded by the cultural backgrounds of the societies. "Space traditions cover various aspects of space organizations. Modes of enclosure and exposure of private indoor and outdoor spaces, indoor-outdoor and public-private interaction patterns and the establishment of special sequences are all determined by space traditions (Eyuce, *et al*, 1989: p 53)." As Kent suggests that architects need to carefully study the culture aspects which are most likely to influence the use of space if they want to design compatible buildings.

Rapoport once said: "If the provision of shelter is the passive function of the house, then its positive purpose is the creation of an environment best suited to the way of life of people -- in other words, a social unit of space (Rapoport, 1969: p46)." The study of space utilization in traditional domestic buildings as well as in spontaneous and self-built migrant houses will well support this point of view.

1.3. The Use of Space in Traditional Domestic Buildings

1.3.1. Zhejiang vernacular house and the use of domestic space

> The meaning of inhabited space is rooted in everyday life. There is a context in which dwelling takes form, involving a complex interaction of environmental, economic, social, and technical factors.
>
> (Knapp, 1989: p1)

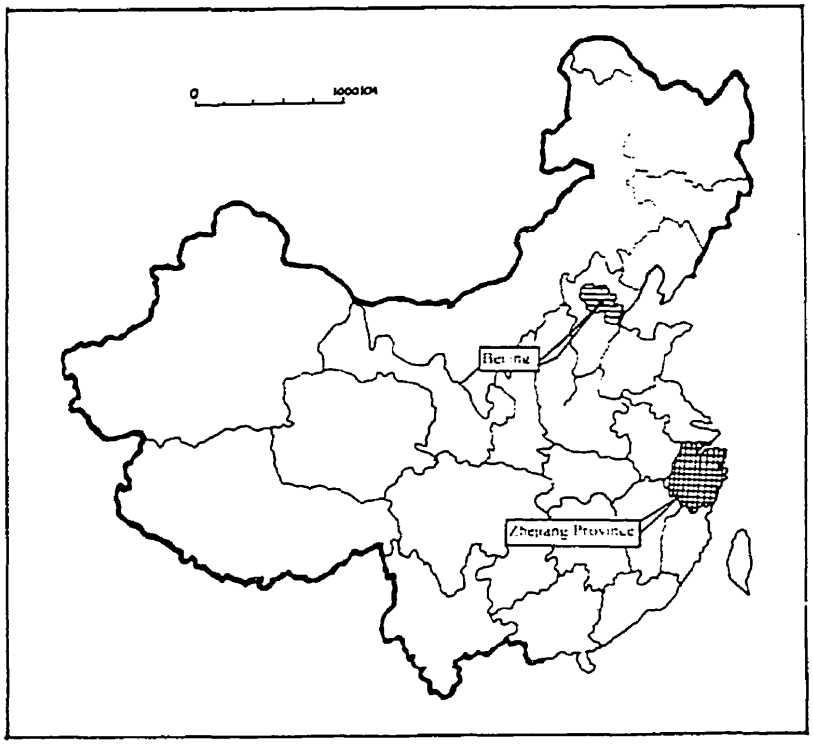

Figure 1 Location of Zhejiang Province

A. Physical features

As one of the country's smallest but most densely populated provinces, Zhejiang Province is situated along the central portion of China's eastern coast (figure 1). It encompasses an area of approximately 101,800 km^2 with a population of over 40 million.[19] About two thirds of its territory is covered by rugged hills or mountains. Various watercourses cut through most of its towns and villages to form a typical topography different from other parts of China.[20]

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[19] Knapp, Ronald G., *China's Vernacular Architecture--House Form and Culture* (Honolulu: University of Hawaii Press, 1989), 1.

[20] For more information, see Liu, Xiangzhen, *et al.*, *Zhejiang Minju (Zhejiang Vernacular Housing* (Beijing: China Architecture and Building Press, 1984), 16-31.

B. General characteristics of the use of domestic space

The architectural forms in villages and towns of Zhejiang Province vary from place to place. As this region enjoys greater economic prosperity but has a denser population and extreme shortage of land, multi-story houses are very popular in this region. In small towns and villages in Zhejiang, one often sees an arrangement of multi-story dwellings with workshops and stores on the ground floor that compete for space along narrow lanes[21] (figures 2, 3).

Zhejiang vernacular houses, similar to most of the vernacular house types elsewhere in China, are also characterized by simplicity and a symmetry based on balance and axis. However, in most rural houses, even some urban dwellings, there is an informality that derives from the simple plan and the casual use of both interior and exterior space.[22]

Zhejiang vernacular houses exhibit a remarkable sensitivity to the natural environment. In response to the subtropical climate that is hot and humid in summer, the arrangement of the domestic space is carefully designed to keep the inner space cool and airy in summer. Zhejiang vernacular houses are often two to three stories with high gables and a narrow courtyard called the "light-well"[23](figure 4-A). The taller the house, the smaller the "light-well," and the better it is sheltered from sun and rain. Space is organized around the "light-well"; the main hall is more often inter-linked with the courtyard by means of opening up the door panels so that both ventilation and lighting are accentuated (figure 4-B). Other adjacent spaces are connected to the courtyard (or light well) by verandahs to represent hierarchy and systematic interaction.

Most of the domestic space in Zhejiang vernacular houses is undifferentiated in function and multipurpose in use, responding to practical and fluctuating considerations of daily life. Even when the space's function is designated by name, such as a reception hall or bedroom, its use is often altered

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[21] Ibid., 32-39.
[22] For more explanation, see Knapp, *China's Vernacular Architecture,* 51-59.
[23] For more details, see Liu, Xiangzhen, *at al., Zhejiang Minju(Zhejiang Vernacular Housing)*, 102-112.

by simply changing the furniture. This fluidity of space utilization is a counterbalance to the hierarchical ordering of overall space, which adds some special characteristics to this house type.

The Zhejiang natives are very good at making full use of their domestic space. Firstly, the arrangement of interior space is very flexible, particularly among those of limited means. Living space is often shared and combined with working space. In the rural areas, tools and agricultural raw materials are often found in the living space; while in cities and towns, various income generating activities usually appear in the living space. Most structural elements are left exposed, revealing the casual use of space (figure 5). Besides, the use of loft space is very popular in this region. There are all kinds of loft space found in Zhejiang vernacular houses.[24] Some of them are used as bedrooms and some as storage space, depending on the form and size of the loft (figure 6).

Zhejiang vernacular houses are also very economical with regard to land-use.[25] Much construction takes place on hill slopes or immediately adjacent to canals and streams (figure 7). The built form of a Zhejiang domestic dwelling involves an ongoing additive process, drawing upon experience rather than on theory or formal design. The use of building modules facilitates expansion because of the ease of assembling additions to an existing core (figure 8). Adding new rooms as the size of the family increases represents an economical use of land since new sites are not required. Thus Zhejiang dwellings too often appear unfinished.[26]

Traditionally, Zhejiang vernacular houses are often built by the owners themselves with the assistance of neighbors and relatives as resources permitted. Thus it is easy to modify and adjust the houses to the user's actual needs.

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[24] Ibid., 116-122.
[25] Ibid., 65-90.
[26] Ibid., 177-179.

1.3.2. The Traditional Spatial Patterns of Beijing Courtyard Houses

A. Characteristics in general

"Siheyuan" (or four-in-one Beijing courtyard house) is the most typical vernacular house form in Beijing. Even today, many residential neighborhoods in old Beijing are still packed with various courtyard houses. The typical settlement pattern is that many courtyard houses are connected with small alley called *huton*, many little *hutons* lead to a sub-street, and then are connected to the main street.

Each courtyard house is symmetrically arranged with a north-south axis (figures 9, 10). The courtyard is the center of the house, and is enclosed by four building blocks on each side. The main pavilion faces south. An extended verandah encircles the central courtyard. The main entrance is situated in the southeast. A screen wall is erected in the front court facing the main entrance. In a courtyard house, windows do not face outwards onto the public street, but are turned inwards onto the enclosed courtyard (figures 11, 12).

The main pavilion and the courtyard are the two most significant parts of a courtyard house, complementing each other. After entering the main gate, one comes across the first courtyard which is a long and narrow front yard that runs from east to west. It contains a front block which faces north, with bedrooms for male servants or for miscellaneous purposes. Through the front courtyard, one comes to the second gate which is situated on the central axis. It is sometimes elaborately decorated and is called *Chui-hua-men* (hanging-flower-gate). After passing this gate, one comes to the main courtyard. To the north is the main pavilion, in the center of which is the main hall, the space is used for ancestor worship, weddings, funerals, etc. Rooms on either side of the main hall are the parents' bedrooms, while chambers on the east and west are guest rooms or children's bedrooms.

The built form of the courtyard houses fully reflects the Confucian rites and customs in traditional Chinese culture. The rites govern the status and

behavior of every member of the family. Hierarchical orders are reflected along the central axis of the courtyard houses. The main hall which is always situated on the north end of the axis is used both for the master's daily activities and for important ceremonies. It is the highest among all the elements. As the saying goes, "the northern house is supreme while the side chambers come next, and the front block serves the guest".[27] The "hanging-flower-gate" in the courtyard house is the architectural feature that separates the males from the females, as well as the insiders from the outsiders.

B. The existing courtyard houses

Today, the majority of the existing courtyard houses in Beijing date from the late 19th century. By 1949, there had been very little change in their built form, they still closely resembled the model from which they evolved. Within the past half century, however, this situation has changed dramatically. First, instead of serving as a spacious home to a large extended family, a traditional courtyard house today shelters many families who often have no relationship to each other. This has resulted in a substantial reduction in the available floor area per household and also in the deterioration of the living environment. Second, in order to obtain more living space, various forms of additions were built in the courtyard, altering the original state of the house and hindering proper lighting and ventilation[28] (figure 13). Most additions are used as kitchens, storage space or as extra habitable space. The traditional houses have thus turned from the courtyard houses to multi-household compounds, and then to courtyardless compounds. But no matter how much they have evolved, they still remain as single story buildings, and the use of domestic space is always mono-functional (figure 14).

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[27] See Lung, David P. Y., *Chung-kuo ch'uan t'ung min chu chien chu (Chinese Traditional Vernacular Architecture)* (Hong kong: Hsiang-kang ch'u yu shih cheng chu, 1991), 26.

[28] For more information, see Casault, André, *Understanding the Changes and Constants of the Courtyard House Neighborhoods in Beijing,* Master's thesis (Boston: Department of Architecture, MIT, 1988), 49-59.

1.4. The Study of Space Utilization in Informal Settlements

Shanty towns, squatter settlements, or informal settlements, are different names for the migrant settlements in various cities around the world, particularly in developing countries. The United Nations refers to them as "informal" or "spontaneous" settlements. No matter what they are called, they are considered illegal everywhere, in the sense that they occupy urban land without having a formal tenure.

Growing informal settlements in the urban areas have caused many serious problems in developing countries. "Such spontaneous migrant settlements contribute to the proliferation of pockets and belts of extreme urban poverty, increasing the amount of housing that fails to meet even the lowest of the minimum standards of safety and public health, increasing pollution of the environment, and adding to the sharply rising costs of even most basic public services and community facilities -- in short, accentuating the degradation of human coexistence in the cities of the world."[29]

With the help of their relatives or friends, migrants usually build their tiny shanties out of impermanent and salvaged materials: discarded pieces of plywood or lumber, rusty galvanized iron sheets, stones and broken bricks gathered here and there, even tin cans and cardboard boxes (Anthony, 1979: p 7). The United Nations defines 'slum' as a building, group of buildings, or areas characterized by overcrowding, deterioration, insanitary conditions or absence of facilities or amenities, wherein any of these conditions endanger the health, safety, or morals of its inhabitants or the community (United Nations, 1971).

There is no doubt that the living conditions in slums of squatter settlements are far below the standard of common urban life. Nevertheless, the meaning and use of domestic space in migrant houses are sometimes very impressive. In some aspects, they are quite different from that in vernacular

[29] Anthony, Harry A., *The challenge of squatter settlements: With special reference to the cities of Latin America* (Vancouver: University of British Columbia Press, 1979), 4.

houses, and also they vary from place to place according to the climatic conditions and/or cultural traditions. For instance, migrant houses in Latin America are different from those in Europe and North America. In Latin America, "the climate permits many of the functions of family life to be performed outdoors, and the living space of the people is a combination of covered space and open-to-sky space. Many essential functions of family life, such as cooking or sleeping or looking after the children, can and do take place outdoors: in the courtyard, on a roof or terrace, in the street, in a plaza nearby. Housing should include a mixture of all of these elements together. It is not just a shell, a room, or a number of rooms (Anthony, 1979: 16)."

Previous studies have examined different issues related to the meaning and use of domestic space in migrant houses of informal settlements. As in vernacular houses, domestic space in migrant houses could be categorized as "outdoor space" and "indoor space". Chermayeff and Alexander (1963) summarize the outdoor spaces in human settlements as private, semi-private, and community spaces. Rybczynski and many other scholars[30] also identify the street space and tree space as two other important outdoor spaces. A recent study by Nwankama[31] shows that outdoor spaces in informal settlements could be further classified as: house extensions, yards, small shops, work places, tree spaces, farms, street spaces and special spaces which are used round the clock for a wide range of day-to-day activities. These activities include economic, domestic, agricultural, social, storing/parking, and special activities. His study also shows that low-income households tend to take a great advantage of private and semi-private spaces for many home-based economic activities, while the community space is always kept to a minimum.

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[30] Appleyard (1980a and b, 1983), Williams (1974), Rakodi and Schlyter (1984), Niskier (1988), Rybczynski et al (1990), as well as the Vastu Shilpa Foundation and Center for Minimum Cost Housing identify the street space as the most important outdoor space in human settlements, especially in developing countries. Rybczynski et al (1990, p.43) also identify the tree space as another important outdoor space.

[31] Nwankama, N. Wosu, *The use of outdoor spaces in an informal settlement in Metropolitan ABA*, Master thesis (Montreal: McGill University, 1993), 121-127.

In most informal settlements, overcrowding and lack of space have always been a problem. Therefore, many innovative measures have to be adopted by the slum dwellers for the performance of their daily activities (Ghosh, 1994: p14). Peter Lloyd describes the interior of a typical migrant house in Medalla Milagrosa in his book *The 'Young Towns ' of Lima*:

> The front door usually leads directly into the main living room. Almost all houses now have a cement rather than an earth floor. But some have little furniture apart from a few wooden chairs or benches and a simple table. ... The room often contains a bed for some of the family must perforce sleep here. Kitchen and other bedrooms are separate. ... In some houses the front parlor has been converted into a shop. The shop sell a wide assortment of fresh vegetables as well as an array of tinned goods and other groceries; others sell only non-perishable goods and a few have merely a refrigerator with cold drinks.
>
> (Lloyd, 1980: p 56)

This description is of a house belonging to a relatively "well-off" migrant family, while other studies describe living conditions that are much worse. As the available indoor space is often extremely limited, thus, the use of indoor space is always multi-functional. In the study examining the use of domestic space for income generation in a low income housing settlement, Anindita Ghosh summarizes that in low-income housing settlements like slums and squatter colonies, it has long been established that the houses (indoor spaces) are not only places for living but also for working. Primary living space is given over for income generation activities. The lack of physical space makes the use of indoor spaces become highly and intensely efficient.[32]

2.5 Summary

> The use of space is an integral part of every human being's daily life. Every day, we make subliminal and conscious decisions concerning the occasions at which a diverse range of activities will be performed. Such decisions are based on the spatial patterning that is learned in childhood through socialization.
>
> (Kent, 1984, p.1.)

[32] Ghosh, Anindita, *The use of domestic space for income generation in a low-income housing settlement,* Master's thesis (Montreal: McGill University, 1994), 78.

A general review of previous studies of the use of domestic space has shown that there are basically two types of space: physical space and behavioral space. The behavioral space which interprets the interrelationship between human behavior and built environment is of primary concern.

Sanders summarizes seven factors which affect the form and the use of domestic space: climate, topography, available materials, level of technology, economic resources, function and cultural conventions. Further studies also show that building function and cultural conventions (so called culturally fixed determinants) are the most influencing factors for the use of domestic space.

The study of the use of space in two vernacular house types in China shows that there are significant similarities and differences between the spatial pattern in Zhejiang vernacular houses and that in Beijing courtyard houses. The former is more flexible and usually multi-functional while the latter is more rigid and mono-functional. This is mainly due to the differences between their cultural backgrounds and space traditions. The study will help us to understand better the use of domestic space in migrant houses in Zhejiang Village.

The use of domestic space in migrant houses of informal settlements is very dynamic and flexible. It could be different from place to place and from time to time. The function of certain space could not be judged merely by the title of the space, but by the real activities that take place there. However, conventional standards do not take into account these.

The meaning of domestic space is rooted in everyday life. There is a context in which dwellings take form, involving a complex interaction of environmental, economic, social, and technical factors. As Amos Rapoport reminds us, ordinary houses and other commonplace aspects of the folk tradition are "the direct and unself-conscious translation into physical form of a culture, its needs and values -- as well as the desires, dreams, and passions of a people (Rapoport, 1969: p2)."

Chapter 2

Rural Migrants in Beijing: An Overview

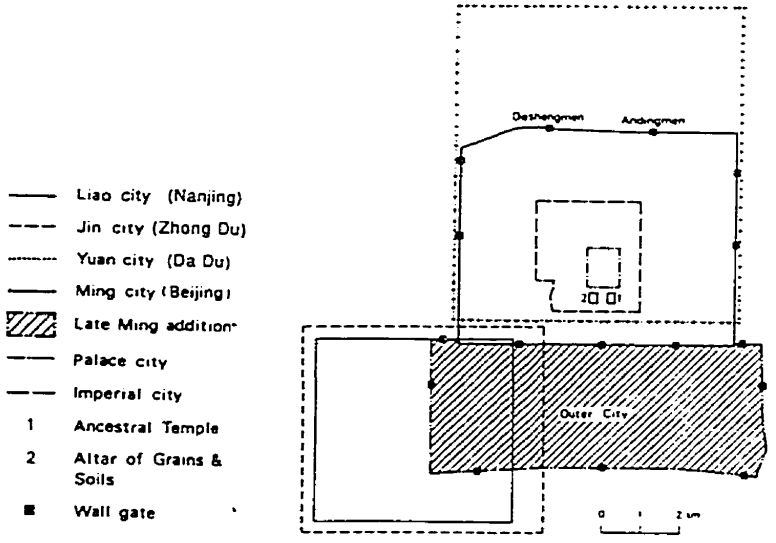

Figure 15 Evolution of Beijing

2.1 The City of Beijing - Background

2.1.1 The evolution of Beijing's urban fringe

Beijing has been the capital city of China for more than 700 years. The current city proper took its shape during the Ming dynasty (figure 15). From Yuan to Qing Dynasty, the development of Beijing followed the traditional planning and construction pattern of China's old capital cities. The city wall was the ultimate boundary which separated the city from the rest of the rural world. It not only played a role of protection to the inner-city, but also set the limit for urban development. There was no distinctive area which bore the features of an urban fringe.

Since the foundation of the People's Republic of China in 1949, the development of downtown Beijing and its urban fringe area has experienced

several different phases.[33] From 1949 to 1951, the inner boundary of the urban fringe moved 5-10 km toward the outside of the city. At that time, the urban fringe area consisted primarily of agricultural land. During the period from 1952 to 1959, urban development of Beijing was profoundly affected by the rapid economic growth. The inner boundary of urban fringe moved 2-3 km further in both east and west directions. Due to political and economic reasons, a lapse in development occurred between 1960 and 1979. The urban fringe of Beijing had hardly expanded. However, since 1980, soon after the beginning of China's economic reforms, the development of downtown Beijing and its urban fringe has been changing very rapidly. The city gradually recovered from its previous disorder and developed more steadily thereafter. In 1982, the Master Plan of Beijing was revised (figure 16). Industry started to take the place of agriculture and became the dominant factor of economic growth in the urban fringe area. After 1990, the prosperity of trade and commerce was one of the major features in most Chinese cities. The improvement of the Third Ring Road[34] framed the shape of the built-up area and pushed the inner boundary of the urban fringe steadily outwards beyond the Third Ring Road.

2.1.2 Major problems in the recent development of Beijing's urban fringe area

During China's transition from a planned economy to a market economy in recent years, many problems have emerged in the development of Beijing's urban fringe area. First, there is a conflict between the high demand for urban land use and the confused land management system. The economic reforms have loosened the constraints on population movement. Urban population growth, as

[33] All figures in this paragraph refer to " Materials on the Construction of Beijing after the founding of the P. R. C.", *Chengshi Guihua (City Planning)*, the editorial staff of Beijing's Construction History Committee, June, 1987, Beijing.

[34] The master plan of Beijing shows that there will be five Ring Roads in Beijing (figure 16). Within the Third Ring Road, it is considered the city proper; between the Third Ring Road and the Fifth Ring Road, it is considered the nearby suburb or the urban fringe area; outside of the Fifth Ring Road, it is considered as the remote suburb or outer suburb.

well as the increasing rural-urban migration, put considerable pressure on the existing overloaded infrastructure of the city, and stimulate a high demand for urban land use. However, the current land control systems in the urban fringe area overlap[35] with each other under the current land management system. As Liang writes: " The land ownership and use right are allocated among different governmental levels and administrative units, further separating the processes of urban construction and infrastructure supplies from land acquisition and development."[36] As a result, the construction of infrastructure and facilities always lags behind the transfer of land parcels. This has exacerbated the poor sanitary conditions, and caused severe traffic congestion and environmental deterioration in many residential communities, particularly in the informal sectors.[37]

Second, there exists another conflict between the planned land use control and the influence of market forces. Under the market economic conditions, land price is greatly influenced by its location. Land which is closer to the urban center, allowing greater access, is higher in price. Consequently, the urban fringe area easily becomes the target of land development. Therefore, the prevention of urban sprawl from spreading to the urban fringe area has become a big issue in controlling the unlimited expansion of the city.

Third, there is a big conflict between the control of urban population growth and the growing migrant communities in Beijing's urban fringe. Constrained by high rents and strict civic control in the inner city, rural migrants often feel more comfortable settling in the urban fringe area where it is comparatively closer to the city center and where there is less control from the authorities. However, no appropriate arrangements in terms of land use, housing

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[35] Here, "overlap" means that there are several levels of control over a certain piece of land, one on top of another. First of all, the state has the control over the land, then the municipal government, then the local government, and finally the resident. However, the legal title of the ownership of the land is not clear and thus causes a lot of trouble.

[36] Liang ,Wei, "Spatial Evolution and Land Use in Beijing's Urban Fringe", forthcoming in *Cities* (Devon: Elsevier Science LTD, 1997).

[37] For details, see ibid.

and employment have been made for the migrants. As a result, the development of the urban fringe has become a big headache for the municipal government.

2.2 Migration to Beijing

2.2.1 New trends in urbanization

> Over the years of history, most cities have grown up with an identifiable character of their own. This was particularly so, until the industrialization process began to attract waves of migrants from the rural areas to the peripheries of the towns and cities in search of employment.
>
> (Juppenlatz, 1970: p.37)

In the past 18 years, socialist China has experienced a dramatic change in its urbanization process. Before the economic reforms began in 1978, population movement in China was under very strict control by the government through various administrative means. There was a clear demarcation line between rural and urban population. A stringent household registration system in most of the big cities had played a very effective role in controlling the boundless population increase in the past. The regulatory system based on household registration, which is called *hukou* in Chinese, was put in place in the late 1950s. Before the economic reforms of the 1980s, a household's *hukou* not only stipulated whether they were considered to be urban or rural residents, but also served as the basis for the allocation for many goods and services, such as basic foods, housing and employment. Very different from many other countries, the fundamental linkage between *hukou* system and China's planned economy once provided a efficient control over population movements. Thus, a very large surplus labor force was then "hidden"[38] in the rural area.

There has been a series of changes in the migration pattern since the beginning of the 1980's. First, the creation of the 'household responsibility

[38] Superficially, it seems that everyone has a job to do, while the actual situation might be 10 persons sharing the job only enough for 6 persons. Thus the other 4 persons can be considered as the 'hidden' surplus laborers.

agricultural households to freely market their excess products in the urban area. This made it possible for the peasants to enter the cities without their basic food allocations. Second, the increase of private house ownership and the commercialization of urban residential housing have made it easier for the migrants to rent or buy houses while they do not belong to any work unit. Third, the gradual opening up of the urban labor market over the same period has provided great opportunities in the fields of building construction, clothing manufacture, food preparation, small trading and domestic services for the new migrants. The conventional *hukou* system started to lose control over the spontaneous rural-urban migration. Therefore, millions of migrants chose to move into the cities seeking higher wages and a better life. In less than a decade, the population movement pattern had been dramatically altered in most of China's big cities. In Shanghai, for example, the floating population had grown from 1 million in 1984 to 3.5 million by the end of 1995.[40] Bejing has also inevitably been affected by the increasing waves of migrants. According to statistics, in the period of 1978 - 1992, the capital's floating population soared from 210,000 to 1.5 million, a sevenfold increase[41].

Population movement can result from political, economic, social, cultural or other factors. The dramatic increase of rural migrants in Beijing was primarily driven by economic considerations. According to a recent survey[42], 55.4% of the interviewed migrants in Beijing considered making money to be the principal

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level, not directly related to individuals. It was assumed that, by doing this, the peasants would be able to produce more food and also they are allowed to sell part of it in the food market which they did. However, in turn, a large amount of the labor force is therefore freed from the limited agricultural work.

[40] Gilley, Bruce, "Irresistible Force--Migrant workers are part of a solution, not a problem", *FAR Eastern Economic Review* (April 4, 1996): 19.

[41] Wang, Cunsheng, *et al.*, "Beijing Shi Liudong Renkou De Zhuangkuang Ji Guanli Duice (The situation and administration strategy of the floating population in Beijing", *Renkou yu Jingji (Population & Economics)*, Beijing, No. 4, 1993 (Tot. No. 79): 35.

[42] Zhu, Suhong, a former graduate student in the Department of Sociology, Beijing University, did a survey about the existing situation of rural migrants in Beijing in 1990-91. Based on a sample of 280 respondents, she analyzed the data from different aspects, such as the reasons for immigration, length of stay, age structure, and etc. This part of information refers to her Master's thesis, (*Chengshi zhong de nong min) Peasants in the City* (Beijing: Beijing University, 1992) table 4-1, 44.

reason for their migration, while another 19.6% migrated because of the shortage of land in the countryside. This population movement is in both cases due directly to economic factors. To be more precise, the reasons can be sub-divided into four categories: (1) stresses resulting from rural land shortages and high population densities; (2) poor natural conditions; (3) the burden of high taxes (in some rural areas, peasants suffer greatly from the unreasonable collection of various of taxes); and (4) to search for new potential markets for economic activities. According to the 'push' and 'pull' theory[43], on the one hand, the aforementioned factors have provided a strong internal 'push' for the peasants to leave their land. On the other hand, the rich, cultured life of the city is a constant attraction or an irresistible 'pull' to rural migrants. Migrants who move into the city for the first three reasons more often become the hired laborers, while those who fall into the fourth type more often become owners of small businesses.

2.2.2. Characteristics of rural migrants in Beijing

One may describe six important characteristics of rural migrants in Beijing as follows[44]:

(1) The majority of the rural migrants in Beijing consists of those engage in economic activities, such as contract workers, domestic servants and business people. By the end of 1992, the total number in this group was estimated at more than three quarters of all temporary residents[45].

(2) The largest proportion of the migrants are male (about 78.7%) and composed of people of working age, with more than 80% of them under the age of

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[43] To a certain migrant, the 'push' factor means the opportunities he receives in the city and the resources available to him to achieve these (such as the education and the kinship ties), while the 'pull' factor means the opportunities open to him if he stays in his village.

[44] With reference to Wang and *et al.*, (1993).

[45] Another point of view about the floating population is to divided it into two parts: the temporary residents which occupy almost 2/3 of the floating population and the transient population which occupy another 1/3. For instance, in 1990, there were about 1.5 million floating population in Beijing. Of which, about 1 million were temporary residents. For more details, see Wang and *et al.*, (1993): 35.

30 (see table 2.1). Education levels are relatively low compared to the residents of Beijing.

Table 2.1 Age structure of rural migrants in Beijing

Age group	16 -20	21-25	26 - 30	31 - 35	36 - 40	41 - 45	> 50	Total
percentage	20.6%	36.2%	25.2%	5.7%	6.0%	3.9%	2.5%	100%

Source: Based on a survey of 280 respondents done by Zhu, Suhong, 1992.

From the above table, we can see that 82% of the surveyed migrants are under the age of 30. This is similar to the situations in other developing countries: the migrants who come to the cities are young people, predominantly in their teens and early twenties. This phenomenon has a great impact on the family structures of the migrants, their business types, housing alternatives and so on. For example, as most of the migrants are young people, their major intention is to make money and to create opportunities for the family in a long run. So they care less about the present living conditions than about their business.

(3) The distribution of places of origin of rural migrants to Beijing is quite complex, as they come from almost all over the country (see table 2.2). But they can still be categorized into three parts: 1) coming from the adjacent provinces, such as Hebei (20.2%). 2) coming from the poor and densely populated region, such as Henan (17.0%), Anhui (14.2%), Jiangsu (11.3%) and Sichuan (7.8%). 3) coming from the economically developed region, such as Zhejiang (10.6%).

From table 2.2, we can see that migrants from Zhejiang only occupy 10.6% of the total migrants. However, as already noted, the main reason for migration from this region is to look for new potential markets to do business. Therefore, although the percentage of migrants from Zhejiang is not large, the influence of this migrant group is undeniably substantial, which was one of the reasons for choosing this migrant group to do the case study.

Table 2.2 Places of origin of Beijing's rural migrants

Name of Province		Percentage	
Hebei	Adjacent area	20.2%	
Henan		17.0%	37.2%
Anhui	Economically backward	14.2%	
Sichuan	and /or heavy populated	7.8%	
Jiangsu	area	11.3%	33.3%
Zhejiang	Economically developed	10.6%	
Fujian and	area with heavy		
Guangdong	population	2.1%	12.7%
Other		16.8%	
Total		100%	

Source: Zhu Suhong, 1992

(4) Migrants now tend to stay longer in Beijing and many want to settle there for good (see table 2.3). They buy a house or lease a piece of land to build on and set up a business in the hope of making their own fortune.[46] Several migrant communities have formed within the major districts on the periphery of Beijing. It seems that the principal difference between migrants and those who are regarded as permanent residents is only that of household registration.

Table 2.3 Length of stay for rural migrants in Beijing

Length of stay	Percent
Less than one year	37.4%
1 - 2 years	25.6%
3 - 5 years	18.9%
More than five years	18.1%
Total	100%

Source: Zhu, Suhong, 1992.

[46] Plante, Catherine, Zhu, Haibo, "A Law into itself - Peking's ' Zhejiang Cun' ", *China Perspectives*, No. 2, November/December (Beijing, 1995), 12.

From table 2.3, we can see that about 37% of the surveyed migrants have stayed more than 3 years in the city, this means that we can no longer consider the rural-urban migration problem as a temporary one, and should find a long term solution.

(5) Because of what is termed "chain accumulation"[47], migrants from the same place of origin choose to live in highly concentrated groups and engage in similar economic activities. The kinship system of the migrants provides newcomers to their community with the necessary social connections, feelings of security and job opportunities.

(6) Most of the rural migrants in Beijing tend to be concentrated in the urban fringe area outside of the Third Ring Road. In 1992, for instance, there were more than 60% of migrants living in the four nearby suburbs namely Chaoyang, Haidian, Fengtai and Shijingshan.[48] As noted earlier, the urban fringe area has been under very loose control from both the municipal government level and the local municipality level for many years. According to the high rent and strict civic control of the downtown area, migrants feel more comfortable settling in the urban fringe area where it is not far from the city center but where the government has less control of the population and the land. Current trends also show that migrants now tend to settle in the remote districts in the periphery of Beijing.

2.2.3 Growing migrant communities in the periphery of Beijing

As already noted, China's open door policy has resulted in a rapid increase in the mobility of people, capital and goods. Migrants from the rural areas have flocked in hundreds of thousands to Beijing, the most powerful and prestigious magnet in the country. When they first started to arrive, the newcomers usually chose to settle in "Villages" along with people from the same part of China as

[47] If the migrants who immigrate to the city chiefly rely on the information provided by their relatives or friends who have already migrated into the city, this phenomenon is called 'chain accumulation' in sociological terms.
[48] With reference to Wang, and *et al.*, 36.

themselves. Springing up in Beijing's nearby suburbs, namely Chaoyang, Haidain, Fengtai and Shijingshan districts, these centers of population quickly became known by the name of their dominant population - "Henan Village", "Anhui Village", "Xinjiang Village", and "Zhejiang Village"(figures 17, 18).[49]

On arrival in the city, the migrant's most urgent needs are accommodation and work. Due to a lack of resources to help the government cope with the existing housing problems and very large numbers of new immigrants, the residential milieu where the humble migrants live is immensely varied. Situated within different districts of Beijing, and composed of different migrant groups from different regions with different cultural backgrounds, these migrant communities have different characteristics. Some of them are still at their premier stage of formation, others have been developing for more than 10 or 15 years. Zhejiang Village, for instance, started to take its shape in 1982, while Henan Village has a much shorter history (less than 8 years). Also, some of the migrant communities are well organized and have clear boundaries (such as Zhejiang Village and Xinjiang Village, figure 19), but others are blended with the local residential communities (e.g. Hebei Village or Anhui Village) and therefore, are less evident (figure 20).

Residing on the periphery of the capital, the rural migrants help to ensure the smooth running of the local economy. The major economic activities include processing and manufacturing of clothing, distribution of fresh food products, such as fruit, vegetables and meat, street occupations such as carpentry, waste recovery and sorting. As most of the migrants come to the city for economic reasons, the location of job opportunities governs the geographic settings of the migrant communities. For example, Henan Village is located in Houbajacun of Haidian District, near Qinghezhen. It is known as a migrant community of waste recovery. About 80%[50] of the migrants who live in this community are more or less engaged in waste recovery. This is because Qinghezhen houses one of the

[49] See Plante, Catherine, *et al.*, "Life and Death of Zhejiang Village", 12.

[50] This number is estimated according to the preliminary survey done by the author in August 1995.

biggest salvage stations in Beijing. Another example is Xinjiang Village. It is located in Weigongcun area where the National Collage[51] and the Beijing Liaison Office of Xinjiang Province are situated. Most of the migrants in this community are restaurant runners or fruit venders who serve the Xinjiang origins in this district (figures 17, 19).

There is no obvious settlement type for most of the migrant communities. Around the downtown area, no real migrant community has ever existed. The migrants' life style is more strongly influenced by the local residents. There are no special services or organizations that directly serve the migrants. Many of the home servants or baby-sitters in downtown area (most of them come from Anhui province), for instance, often live with the urban residents whom they serve. However, for migrants who live in the urban fringe area, the residential milieu is characterized more by less influence of the local residents. For example, in Henan Village, one often finds that migrants from the same village live together in a group of rental rooms offered by the local residents. Within the little courtyard, it is the real realm of the migrants.[52] Among all existing migrant communities, the most typical example is Zhejiang Village, a community where there is a strong feeling of identity that makes it distinct from the others.

2.3. The Existing Housing Problems in Beijing

Millions of migrants who want to stay in Beijing need at least two things; work and accommodation. On the one hand, most of them could not find a regular wage-earning job. The poor migrants, lacking both steady income and permanent-resident status, can only make a living from casual work. Therefore they cannot afford to have a home as the urban residents do. On the other hand, because of the rapid urban population increase and the serious housing shortage problem, not every urban resident can have an adequate house or apartment to live in.

[51] There are many students and faculties in this college who originally come from Xinjiang.
[52] The preliminary survey of the author has proved this.

2.3.1. Housing shortage problem

The housing shortage problem is a source of constant annoyance for most of China's big cities, especially Beijing. After 1949, both the local and the central governments have put considerable effort into solving the urban housing problems in Beijing. Between 1979 and 1983, there were 14.3 million square meters of newly built housing[53], while during the more than 700 years from 1215[54] to 1949, the total housing area had been only 13 million. In about 41 years (from 1949 to 1990), 80 million square meters of residential buildings had been built in Beijing (see figures 21, 22).[55] However, this speed of development in housing still cannot keep pace with urban population growth and the continued deterioration of old housing; a situation which exacerbates the housing shortage. According to a general survey among the city dwellers in 1985, the average per capita living space in Beijing was only 6.67 m^2 and the total households with less than $4m^2$ living space were 30.7%.[56] At that time, there were also several hundred thousand households living in crowded and dilapidated old houses dating from the Ming and Qing Dynasty, urgently needing renovation.

2.3.2. Housing ownership and development system

Generally speaking, there are two kinds of urban housing ownership: public and private. Public ownership also includes state ownership and collective ownership.[57] In 1978, public ownership of urban housing occupied a dominant percentage. After the economic reforms, or more precisely, after the urban housing reforms, the private ownership rate gradually increased, and the private housing development agency mushroomed. Individuals were encouraged to build, purchase, or rent housing. This has provided more opportunities for the new

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[53] Chen, Guangting, "Urban Housing Problems in China", *China: The Challenge of Urban Housing*, eds. Choko, Mark H.; Chen, Guangting (Quebec: Éditions du Méridien 1994,), 21.
[54] Ibid., the year 1215 was the year when Beijing became the capital of Yuan Dynasty.
[55] Ke, Huanzhang, "Consideration of the Planning for the Reconstruction of Aging and Dilapidated Houses in Beijing's old town", *China City Planning Review*, Vol. 7, No. 3 (Beijing, September 1991): 57.
[56] Ibid., with reference to table 2.4, p. 23.
[57] For more details, see Chen, Guangting (1994), 30.

migrants to find accommodation in the city, even though ownership or rental of a regular apartment in a modern housing development is still far beyond the means of the poor migrants.

2.3.3. Accommodating the migrants

Although there has been a dramatic increase in urban housing construction in recent years, none of the regular urban houses are available to the poor migrants. The migrants have to solve their own accommodation problems. But how? There are several possible ways: in the inner-city area, since controls over population and land are more rigid, there are few privately-owned houses, or dilapidated additions in the old residential areas which are available to the migrants. They are usually very crowded (some large rooms are subdivided by flimsy partitions to accommodate more people), with poor washing and toilet facilities and high rents. Only a few of the more affluent migrants can afford to buy or rent an apartment suite in the inner-city area. In the urban fringe area, there are more options. In addition to renting rooms from the privately-owned houses of the local residents (which is easier and cheaper than in the inner-city area), the migrants may also choose to live in various residential buildings, usually single-story row houses or rooming houses (figures 23, 24), which are offered by private developers, villages, township governments, local work units or even individual residents. However, as the lack of legal title to the land[58], there is little incentive for private developers to invest more money into the urban fringe areas, resulting in an increase in problems related to poor sanitary conditions, traffic congestion, and environmental deterioration.

2.4. Conflicts and Integration: A Summary

As noted above, under the conditions of the market economy, the development of the Beijing urban fringe area is facing many conflicts. First, the

[58] Some of the private housing developments have a kind of seemingly-legal title, but as the land ownership overlaps, something which is legal to the villages might be considered illegal by the central government.

loose controls over land and population in the urban fringe area, make it easier for migrants to settle there. Second, the overlap of land ownership causes easy access to land, and initiates an increase in local commercial activities and escalation of land values. Third, the current dilemma of land management causes an irrational distribution of interests in land development for the urban fringe area: on the one hand, the municipal government wants to tear down the illegal migrant housing because of the lack of control of the increasing flow of migrants to this area; on the other hand, the local residents, work-units, and the local government -- the beneficiaries--still wish to gain more profit from uncontrolled land development.

Rural-urban migration is a long term, nation-wide problem. China is a country with a population of 1.2 billion, of which 0.9 billion is rural. The challenge facing Chinese officials--central, provincial and urban--is to keep this giant labor force happy, or at least to satisfy its basic needs. As Chairman Mao once said: the peasant problem is the central issue of the national revolution. This is still true.

Part II Case Study

Chapter 3
The Field Survey

3.1. Introduction

The literature review of the first part formed a theoretical base for the thesis, but to understand the use of domestic space in a migrant community like Zhejiang Village, a detailed field survey should be carried out to collect first hand information and data for the case study.

The field study was conducted in three time periods. The preliminary survey was done during Dec. 20, 1994 to Jan., 1995. Two weeks were spent in Zhejiang Village. The first week was to gain familiarity with the study area and other existing migrant communities in the Capital, in order to select the proper case for the field survey. The following week was spent in the central part of Zhejiang Village, namely Macun, Dengcun, Houcun and Shicun, taking photos, drawing sketches and interviewing people. Another week was spent in searching for relevant literature information and diagrams, visiting scholars in the sociology department who were doing research on a similar subject. The second survey was carried out in the summer of 1995, during July and August. Two weeks were used to examine the existing residential courtyards (namely *DaYuan*) for the Migrants by interviewing people and drawing sketches. The third survey was conducted after the clearance in November 1995.

3.2 Choice of the Research Site

This thesis is based on a case study of a typical migrant community in China. The research area was chosen for its convenience of location. The rural-urban migration has affected many of the mega-cities in China, such as Guangzhou, Shenzhen, Shanghai, Tianjing, and Beijing. As the capital of China,

Beijing has the strongest attraction for most of the migrants, and in addition, is the second home town of the author, meaning that information about its background was readily available to her.

As already stated in the third chapter, many migrant communities have emerged in Beijing in recent years. In comparison to the size of other communities, length of their history, their influence and the implementation of community services, Zhejiang Village is the most appropriate migrant community for this field study. Zhejiang Village covers about 26 natural villages in total, but the most concentrated part, or the central part, of the "Village" basically covers four villages, namely Houcun, Macun, Dengcun, Shicun, of which Macun is the most typical place to conduct the field survey.

3.3 The Methodology

3.3.1 The preliminary survey

A preliminary survey was carried out at the initial stage of the field study, in order to obtain general information about the settlement. Although Zhejiang Village has already had more than 16 years history, few studies have been done on this migrant community. Thus, the preliminary survey has examined the following features: the settlement pattern, major economic activities, housing alternatives, and community infrastructure and services.

As there was no scale map of the site at the beginning of the survey; it was extremely difficult to indicate the precise location and size of the whole settlement. Most of the data was collected through photographing and taking observational notes together with some informal oral interviews.

3.3.2 The Survey of the Use of Domestic Space

The preliminary survey was used as a basis for a later, more detailed survey of the use of domestic space. Data was collected through several means; the primary data was collected by physical measurements, sketches, and informal interviews. Other data was collected by photographs and observational notes.

1) Physical measurements

The physical conditions of the migrant houses were recorded through sketches of the plans, sections with eye measurements and estimation. The interior space arrangement was also indicated wherever possible. These sketches were accompanied by notes of relevant information.

2) Informal oral interviews

To understand the special arrangement of the migrant houses, it is very important to gather information about the background of the household regarding their gross income, major economic activities, number of people per household, and family budget. Since migrants are very suspicious of formal interviews, informal oral interviews were done by talking to the head of the household or even the family members.

3.4. Organization of the Field Study

The survey was carried out in several steps. The first step was to select different samples to identify the categories of domestic space. The samples were chosen according to the existing housing alternatives. Through the preliminary survey, it was found that the use of domestic space was more evident in two of the house types in particular, thus more samples were chosen from those categories. All together about 30 samples were chosen according to the above principles.

The second step was to identify the link between the range of activities and the use of domestic space. In this migrant community, which has a strong business orientation, the use of domestic space was greatly influenced by economic activities. The variety of businesses were divided into two major categories: the market-oriented business and the community-oriented business.

By reviewing the selected samples and interviewing Zhejiang migrants, the influence of cultural traditions on the use of domestic space was seen to be an important factor. A field trip to Wenzhou, the hometown of those migrants was conducted as a result of this discovery. Two samples of typical Zhejiang vernacular houses were analyzed.

Chapter 4
Background and General Findings

4.1 Zhejiang Village--The Background

4.1.1 The Settings

One of the most influential migrant communities in the periphery of Beijing, Zhejiang Village[59] is situated in Nanyuan Dahongmen area of Fongtai district, outside of the Third Ring Road (figure 25). The center of Zhejiang Village is about six kilometers to the south of Tian'anmen Square. The current study is based on a field survey of this migrant community.

The territorial expanse of Zhejiang Village, from Muxiyuan to the North, and Dahongmen to the South, Majiapo to the West and Chengshousi Temple to the East (figure 26), covers five administrative villages[60] which include more than 20 natural villages.[61] It is estimated that in 1995, there were about 100,000 migrants living in this area.[62] Of those, more than 80% are from the Wenzhou region of Zhejiang Province and the majority of them are from the agricultural and mountain villages of Yueqing County and Yongjia County. As opposed to other migrant communities, Zhejiang Village is both a well-organized and self-sufficient community. Clothing manufacture and wholesale are the major

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[59] According to Wang, Chunguang, the name 'Zhejiang Village', or '*Zhejiangcun*' in Chinese, first appeared on some newspapers in 1992, e.g., on "*Beijing's Daily*", 18 November, 1992. But this name was first called by Beijing residents in 1988 when Zhejiang Village started to take its shape. For more details, see Wang Chunguang, *Shehui Liudong he Shehui Chonggou* (*Social Movement and Social Restructure--The Study of Zhejiang Village in Beijing*) (Hangzhou: Zhejiang People's Press, 1995), in Chinese.

[60] The five administrative villages are called Dahongmen, Guanyuan, Shiliuzhuang, Dongluoyuan and Shicun village.

[61] There is no official definition about the expanse of Zhejiang Village. In "The Destruction of the 'Village' "(Béja, *et al, China Perspective*, November/December 1995 : 22), it states that Zhejiang Village covers 26 natural villages; while in Xiang, Biao's article, "There is a 'Zhejiang Village' in Beijing", the number of villages covered were 24 instead of 26.

[62] This number was estimated by one of the police officials who was in charge of the survey in this area (Mr. Liu, Jie) in August, 1995. It is also proved by another estimation appeared in the article " The Destruction of the 'Village' ", p.22. However, the official figure admits to "nearly 40,000" only.

economic activities in the village. Most of the inhabitants in Zhejiang Village are craftsmen and small businessmen who are involved in clothing processing and selling. They create a net annual income of about 100 million *yuan*.[63].

The Third Ring Road delineates the northern boundary of Zhejiang Village. Driving along this road, you can barely feel the existence of the village. Apart from several multi-story buildings and chimneys indicating the presence of factories, most of the lodgings in this area are single-story courtyard houses, not much different from other urban fringe areas. However, as soon as you arrive at Dahongmen Street, the 10-meter wide[64] main commercial street in the central part of Zhejiang Village, a distinctive scene will suddenly attract your eyes (figure 27): Various wholesale markets and small retail stores which are full of leather garments, shoes, underwear and many kinds of daily necessities jam the street. If you want to get into the depths of this area, the most efficient means of transportation would be the bright red pedicabs brought in from Wenzhou (figure 28). Walking along the crowded streets packed with various convenience stores, home-based small workshops and restaurants, while the sounds of Wenzhou opera music played loudly on the latest stereo systems, and seeing the shrewd, thin figures of Wenzhou people exchanging greetings in the Wenzhou language, you could really believe that you were in Wenzhou. In Macun, there was a 100-meter long, narrow busy shopping street (figures 29, 30).[65] At its end, there was a 150m^2 open air market [66] covered irregularly by pieces of wood, bamboo, and other kinds of materials (figures 31, 32), where, all kinds of agricultural and marine products of the Wenzhou people's favorite comestibles could be found. In

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[63] This figure refers to Xiang, Biao, "Beijing Youge Zhejiangcun (There is a 'Zhejiang Village' in Beijing"), *Sociology and Social Investigation* (Beijing, No. 3, 1993): 70. 1 Canadian dollar is approximately equal to 6 *yuan*.

[64] After the clearance started on November 15th, the street was widened to 20m.

[65] Most of the migrant houses along this shopping street were demolished during the clearance. In the summer of 1996, when the author was conducting the third field survey, there were only some street venders selling food and daily necessities.

[66] This market was first opened in 1988 and was demolished during the clearance in November 1995. Another interior market was built along Dahongmen street in 1995 to take the place of the old one.

this Wenzhou enclave, there were and still are many interesting stories and events that occur.

4.1.2 The Emergence and Development

The origin

It is said that the first settlers of Zhejiang Village, it was said, were the Lu brothers who came from the Qingjiang district of Yueqing county.[67] In December 1983, on the way back to their hometown from Inner Mongolia where they were engaged in clothing processing activities, the Lu brothers stopped in Beijing. They cleared up a small place near the entrance of the underground passageway of Qianmen and Wangfujing,[68] and tried to sell some of their overstocked products. To their surprise, they succeeded in selling all their products in almost no time. Amazed by the great market potential of Beijing, the Lu brothers decided to rent a room in a local peasant's house, settle down and restart their business instead of going back to their hometown. This may seem to be a dramatic story, but that the clever Wenzhou migrants settled down in Beijing by choosing this particular area at that time was not all by accident.

The reasons of emergence

The emergence of Zhejiang Village was basically due to the so called 'push' and 'pull' powers. Here, the 'push' power refers to three major factors: 1). The extreme ratio imbalance of population to land; 2). Lack of sufficient natural resources; 3). Searching for new potential markets because of business oriented cultural traditions. The 'pull' power includes two factors: 1). The current social transformation has created great opportunities for new migrants; 2). The history

[67] According to Wang, Chunguang (1995: 34-35), there were several sayings about the first settlers of Zhejiang Village. The most popular and acceptable one considered the Lu brothers (Lu Bize and Lu Biliang) from Yueqing county as the first settlers. While another one believed that Mr. Qian from the Hongqiao district of Yueqing county was the first founder.

[68] These are two of the most famous and busiest shopping streets in downtown Beijing.

and the location of Nanyuan have provided adequate conditions for the emergence of Zhejiang Village.

The 'push' powers:

1). Zhejiang Province, especially the Wenzhou area, is densely populated with an extreme shortage of land. For example, the Hongqao district in Yueqing County, where most of the migrants come from, had a population of 210,000 in 1990 with a total arable land of only 91,000 *mu*.[69] The average arable land per capita ranged from 0.2 *mu* to 1 *mu*.[70] This population-land imbalance has created large numbers of redundant laborers.[71]

2). The main agricultural products of Wenzhou are rice, wheat and sweet potatoes which have both low quality and low yield. The lack of adequate natural resources makes it impossible to have any large scale industrial developments. Therefore, only a small amount of redundant laborers can be absorbed by the local townships, while most of them are forced to leave their hometown in order to make a living.

3). Wenzhou, the hometown of Zhejiang migrants, has been well known for its strong business orientation since ancient times. Early in the Song Dynasty, Wenzhou had became a well-developed commercial city, designated as a trading port by the Emperor. A variety of shoes, clothes and other small daily necessities have always been the chief and important products of this area. For historical reasons, it has become an innate cultural tradition for the local Zhejiang people to seek new potential markets for their businesses.

The 'pull' powers:

1). The favorable social context. In 1983, the implementation of the initial reforms in the field of industry and commerce allowed individual businesses to

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[69] 15 *mu* = 1 hectare

[70] The noted figures refer to Xiang, Biao (1993, no. 3): 71.

[71] It was estimated that according to the current rural conditions, one laborer could cultivate at least 5 *mu* of arable land. That is to say, only 18,200 laborers are needed to cultivate the 91,000 mu arable land, and the rest become redundant laborers.

flourish. The number of individual business owners increased dramatically.[72] Because local individual businessmen in Beijing focused primarily on commodity circulation and the catering trade, and other provincial businessmen were vending agricultural products, there was a tremendous need for clothing manufacture in Beijing. The perspicacious Wenzhou migrants, having wandered up and down the country for a while, were strongly attracted by possibilities offered by the great potential clothing market in Beijing. Hence, from an economic point of view, the emergence of Zhejiang Village in Beijing was an inevitable choice for the Wenzhou migrants.

2). The advantageous geographic location of Nanyuan has provided a perfect setting for the emergence of Zhejiang Village. Although outside of the Third Ring Road, Nanyuan is only 5 km away from the Qianmen Commercial District. The connection of Nanyuan with the outside world is very convenient. For example, the No. 2 Bus provides a good connection between Nanyuan and Qianmen; the long distance bus terminal in Haihutun[73]closely links Nanyuan Dahongmen area with almost the whole country.

Moreover, the history of Nanyuan has created a proper social environment for the formation of Zhejiang Village. Early in the Yuan Dynasty, Nanyuan was a royal hunting garden, called "*Feifangbo*". According to "*Da Zheng Ji*"[74]: Nanyuan, with a territory of 160 *li*,[75] had four gates during the Ming dynasty. The Dahongmen gate, which still survives, was one of them. The immigration history of this area is also worth noting. It was stated that "to the southeast part of Nanyuan, immigrants coming from Shandong and Shanxi provinces filled up this area, ..., in total there were 58 colonies",[76] which means that this area has been

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[72] In 1982, the total number of individual business owners over the country was 2,614,006 households, while in 1983, this number had reached to 5,901,032 households, more than double. For details, refer to Wang (1995), table 2, p.49.

[73] The Haihutun long distance bus terminal has a variety of long distance transportation services for passengers, such as from Beijing to Wenzhou, Jiangsu, Hebei, Shanxi and Tianjing. Transportation services for goods are also available.

[74] "Da Zheng Ji (in Chinese)" is the name an historical text in Ming Dynasty, refereed to Xiang, 1993.

[75] One *li* in Ming Dynasty was equal to 576 meters.

[76] "*Ri Xia Jou Yue Kao* (in Chinese)", Vol. 90, refereed to Xiang, 1993.

occupied by various migrants since ancient times. Besides, for historical reasons, this typical urban fringe area almost completely untouched in the past, and was considered economically beyond development. Most of the local residents were not rich, but there were plenty of houses available when the Wenzhou people first came to this area.

The history of development

The history of development of Zhejiang Village can be divided into five stages:[77] A) the rudimentary stage (from 1981 to early 1984); B) the rapid expansion stage (from late 1984 to early 1989); C) the twisting and turning stage (from later 1989 to 1990); D) the steady development stage (from 1991 to November 1995); E) the clearance and reconstruction stage (November 1995 to the present day).

A) the rudimentary stage

In 1983, several pioneers laid a foundation for Zhejiang Village. Actually, according to some local officials,[78] there were already some Zhejiang migrants coming and going as early as 1981. New policies from the central committee were implemented in 1984 to allow the peasants to leave their homeland to find work or to do business in urban areas. Many individual businessmen could easily obtain licenses from the local government of Wenzhou. The population in Zhejiang Village grew from only several migrant households to over 1,000 migrants.[79] At this stage, the Zhejiang migrants lived scattered around the Dahongmen area, and there was not much connection between them.

B) the rapid expansion stage

Further commercial reforms accelerated the expansion of Zhejiang Village. Since 1984, most of the small government-owned commercial enterprises have begun to lease their counters or even whole shops to individual business

[77] With reference to Wang (1995): 36-39, and Xiang (1993): 71-74.
[78] There was a local official named T. Z. S. who believed so. For more details, see Wang, *et al,* (1993): 35.
[79] See ibid., 36.

owners. The new policy has helped the Wenzhou businessmen to enter the clothing market legally. As a result, more Wenzhou migrants moved into Zhejiang Village during 1984 and 1986. The increase of migrants gave rise to the necessity of community services and in 1988, the first food market appeared in Macun. By 1989, according to an estimate,[80] the population in Zhejiang Village had reached to 30,000.

C) The twisting and turning stage

Zhejiang Village experienced hard times during the latter part of 1989, and early in 1990. On the one hand, due to the sudden explosion of the migrant population, many serious social and environmental problems occurred, including those resulting from manufacturing without a license; renting rooms without the official permission; overcrowded living conditions and an unhealthy environment. More concisely, the existing administrative system of the city was not ready to accept such a rapid increase in rural migrants. On the other hand, because of the 1989 turmoil and the 1990 Asian Games in Beijing, new policies were set up to evacuate the migrants. The two thorough clearances in 1989 and 1990 respectively, seriously damaged the development of Zhejiang Village. However, with the help of the local residents, many migrants managed to survive. Moreover, after each clearance, the total population in Zhejiang Village still kept increasing instead of decreasing.

D) The steady development stage

On 1 March, 1991, "The Administrative Means for the Provincial Business Owners"[81] was put into force. Thus, the development of Zhejiang Village stabilized. The internal service system and the external business linkage had gradually become mature. It was estimated that there were about seven private clinics, two kindergartens, at least twenty restaurants around Haihutun area, all owned by Wenzhounese.[82] At the end of 1992, the Muxiyuan wholesale market

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[80] See ibid., .37.

[81] " The Administrative Means for Provincial Business Owners", or " *Waidi Renyuan Jingshang Guanli Banfa* (in Chinese)", indicated that the government policy started to shift from clearance to tolerance.

[82] With reference to Xiang (1993): 73-74.

for light industrial products was partially opened. In early 1995, The "Jing-wen[83] Light Industry Wholesale Market" was put into use. These events demonstrate the fact that, after years of struggle, the existence of Zhejiang Village has been gradually accepted by Beijing residents. However, at the same time, the existing social and environmental problems such as the inadequate urban infrastructure and services, as well as the ill-matched local administration system continue to deteriorate.

E) the clearance and reconstruction stage

On November 15, 1995, the evacuation order: "Notice on the clearance and reconstruction of Dahongmen in Fengtai district"[84] was announced. A group of more than 2,000 personnel were organized to execute the clearance. According to official resources,[85] by November 25th, 5,000 migrants had been removed and 1,432 illegal dwellings had been demolished (figures 33, 34). To some extent, this large scale clearance did have a great impact on the further development of Zhejiang Village. However, as was the case with other clearances, it could neither stop the migrants from coming back again, nor really solve the existing problems. On December 28th, when the author was conducting the last field survey, it was found that many migrants had already returned. Some of them live in the nearby small hotels; some even stay in the remaining buildings which are half-demolished (figures 35, 36).

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[83] The name 'Jing' represent Beijing and 'Wen' represent Wenzhou.

[84] The notice in Chinese is " *Guanyu Qingli Zhengdun Fengtai Dahongmen Diqu de Tonggao*". The decision was made on November 10th, but was announced to public on November 15th. Under the terms of the order, unauthorized residents had fifteen days to leave and illegally constructed buildings (in which the majority of migrants live were to be demolished before November 30th. For more details, see Béja, *et al.*, "The Destruction of the 'village' ", *China Perspectives*, No. 2 (November/December, 1995): 21.

[85] Refer to *Beijing's Daily*, Beijing, 28 November, Sunday.

4.2. Analysis of General Findings:
Zhejiang Village, a Self-sufficient Migrant Community

Through careful analysis of the field survey data, we find that, to a large extent, Zhejiang Village is a self-sufficient migrant community. This self-sufficiency embodies the following aspects: 1) the successful transformation from a typical local residential milieu to one that is more suitable for the migrants of Zhejiang origin; 2) the establishment of well organized economic activities; 3) the efficient accommodation system and the combination of life and business within the limited domestic space. However, Zhejiang Village is not perfect. Despite its success, many serious problems have arisen. These points will be discussed in the following sections in further detail.

4.2.1 Transformation of the Settlement Pattern

As already noted, Zhejiang Village was built on the existing urban fabric of the original residential communities in the Dahongmen area. Before 1983, about 40% of land in Dahongmen area was occupied by heavily polluting factories,[86] by warehouses, and transportation departments. Another 40% was farmland. Only less than 20% of the land was for residential use by the villagers and some urban residents (Liang, 1997). Most of the local villages were concentrated to the south of the Third Ring Road, along Dahongmen road (figure 37). Except for several chimneys and apartment buildings, most of the buildings in this area were single-story simplified courtyard houses.[87]

The settlement pattern was more or less similar to the old residential neighborhoods in downtown Beijing: A main street led to various *hutongs,* courtyard houses of different sizes were built along both sides of the *hutong* with

[86] Such as chemical factories, leather processing factories and rubber factories.

[87] Here, the simplified courtyard houses mean that although the housing compound still keeps the basic concept of courtyard housing which has a courtyard in the middle with several houses around the courtyard, some of the elements that compose a typical courtyard house are missing. For example, some of them have no more verandahs; some of them only keep part of the verandah; some of them have no front rooms or no side rooms.

high walls and main entrances facing the *hutong,* and most of the windows facing the courtyard. The hierarchy of space sequence was very obvious; from public to semi-public, to semi-private, and to private. For historical and cultural reasons, economic activities were restricted to the main streets and kept out of the *hutongs.* Public transportation was also prohibited in the *hutongs.* Therefore, the *hutongs* were very quiet and exclusively residential (figure 38).[88] When the Zhejiang migrants first came to this area, they rented rooms vacated by the local residents. The existing residential milieu was in great contrast to that which existed in their hometown, and was also unfavorable for their strong business orientation. After years of struggle, life in Zhejiang Village has become more comfortable. Today, viewing it from the outside, it seems that this migrant community has woven itself into the existing urban fabric, since the structure of the settlement still stays the same. However, the living environment has totally changed: the original quiet *hutongs* are now full of various stores and workshops; people sit outside in front of their houses along the *hutongs,* socializing while engaging in various economic activities (figure 39). Bicycles, motorcycles and red pedicabs jam the narrow *hutongs.* The hierarchy of space sequence is no longer well defined, instead, the economic activities have occupied a dominant proportion of both indoor and outdoor domestic spaces.

4.2.2 The Economic Activities in the Community

Economic activities are the basis of any society. This is particularly true in a growing migrant community such as Zhejiang Village. As already noted, about 75% of the migrants come to Beijing for economic reasons and this rate is even higher in Zhejiang Village. This migrant community has become prominent, not because of its population or settlement size, but chiefly because of its well

[88] For more details, see Chapter 2. In addition, this description also refers to an interview of a local resident Madam Wang who has lived in this area for more than 20 years.

organized and successful economic activities. According to the field survey[89], in Beijing's current clothing market, more than 90% of the feather coats and leather garments are produced by the migrants in Zhejiang Village. The survey also shows that Zhejiang Village is by no means an impoverished area, since many of its inhabitants have average annual incomes of more than 10,000 *yuan* and their average living expenses are often higher than those of the local residents. The existence of Zhejiang Village is the result of its major economic activities which are dominated by clothing processing and marketing. Other activities, such as social and daily activities, are all derived from them. Hence, to understand the use of domestic space in Zhejiang Village, we first have to understand the internal mechanism of its economic activities.

The business types which link to various economic activities of this community could be divided into two categories: the market-oriented business and community-oriented business.[90] Here, the market-oriented business includes

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[89] This number comes from the field survey conducted by the author, it is also confirmed by others, such as Wang, Chunguang, " Communities of 'Provincials' in the Large Cities: Conflicts and integration", *China Perspectives*, No. 2(November/December, 1995): 18.

[90] Generally speaking, there are seven major business types in Zhejiang Village, namely industry and handicrafts, communication and transportation trade, catering trade, service trade, repairing trade, real estate and building trade. These seven types could be further divided into two categories, according to the internal mechanism and external linkage of the business. The market-oriented business indicates the kind of business which mainly offers services to the society out of the community; while the community-oriented business indicates that which mainly serves the community. The differences between the market-oriented and community-oriented business are as follows:

A) Different market range

The market-oriented business serves Beijing and the whole country, or even further extends to the former Soviet Union and East Europe. While the community-oriented business serves mainly the migrants in Zhejiang Village.

B) Different circulation routes and operation mechanisms

The producers or the service providers of the community-oriented business tend to establish a direct or shortcut connection with the customers who might be friends or even relatives. Thus the business connection between the producer or service provider and the customer is mixed with social relationships. While for the market-oriented business, the circulation routes are mostly multi-linked and indirect. Thus the relationship between the producer or provider and the customer is economy oriented and indirect, rather than socially and direct. The operational mechanism is controlled by pure interest principle.

C) Different risk coefficient

Generally speaking, the risk coefficient of the market-oriented business is higher than the community-oriented one. Because of the market complexity, it is more difficult to capture the market. Besides, the multi-linked circulation also increases the cost. While for the community-oriented business, it is much easier to predict the market needs and has less risk. For more details,

clothing processing and marketing (figures 40, 41). The majority of the migrants[91] (see table 4-1) are engaged in these activities. The community-oriented business consists of many other subsidiary activities, such as providing raw materials, machinery repair, snacks bars and shops selling daily necessities along the *hutong*, running a small restaurant, a clinic, or a kindergarten (figures 42, 43).

The internal mechanism of the economic activities in Zhejiang Village is very similar to the so called "Wenzhou model"[92]: The whole village is like a big 'factory', each household functions as an individual 'workshop', the 'workshops' being well connected by various division and cooperation of work. Kinship and inter-family ties create strong connections among the households and between the household and the community. Low cost and minimum wage keep their business competitive and growing.

The migrants who engage in major economic activities are further divided into two groups; producers and sellers. The number in the former group is slightly bigger than that of the latter. It is common for one seller to connect with several producers; likewise, one producer could also link to several different sellers. Everyone is in the center of the individual's network. The number of external connections are all determined by its own business scope. For example, 20 families together could form a big clothing manufacturing group based on kinship or ties of friendship. Visiting each other, discussing new styles, picking up or delivering ready-made clothes to the doorstep are common scenes in Zhejiang Village. The internal mechanism and organization of the economic activities greatly influence the division and utilization of domestic space in Zhejiang Village. This will be further discussed in Chapter 5.

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see Wang, Chunguang, *Shehui Liudong He Shehui Chonggou (Social Movement and Social Restructure*, 1995), the third chapter, 84 -148.

[91] For more details, see Chapter 5.1 of this thesis.

[92] The major characteristics of 'Wenzhou Model' are: based on family economy; market oriented; rely on small cities and towns; use the rural able person as the key member. For more details, see Wang (1995): 63-64.

Table 4.1 Occupations of migrants in Zhejiang Village

Occupations	*Number of migrants*	*Percentage*	
Tailor	90	54%	
Wholesaler	20	11.9%	80.2%
Retailer	24	14.3%	
Raw material seller	6	3%	
Sewing machine repairer	1	1%	6%
Leather leftover recovery	3	2%	
Restaurant owner	3	2%	
Snack bar	2	1%	
Hairdresser	4	2%	
Vegetable vender	4	2%	
Clinic owner	5	3%	13.8%
Kindergarten owner	2	1%	
Transportation service	3	2%	
Real estate owner	2	1%	
Total number	168		100%

Source: Wang, 1995, p.87-88, table 7. It was based on a survey of 120 samples. Since some of the migrants engaged in more than one business, the total number is 168.

4.2.3 Housing Alternatives for Migrants

The first link between the migrants and the local residents is accommodation. To rent a room in a local peasant's house was very easy before 1984, when there were less migrants and plenty of spare rooms available in this area. Later, as more and more migrants kept moving into Zhejiang Village, finding a place to live became more difficult for the newcomers. At the same time, the rent increased very rapidly. For instance, in 1984, the rent for **two** rooms with an area of 20m² was about 80 *yuan* per month (Can $11.50), while in 1988, the rent for **a single** room with an area of 10m² was 80 *yuan* per month. Today, the rent has reached 30-40 *yuan*/m² per month on the average. If the rooms face the so called "street" or *hutong* giving them the potential of being converted into a shop,

or if they are located in a decent local courtyard house, the rent may even go up to 50-60 *yuan*/m² per month.

The preliminary survey in this study shows that there are four housing alternatives (or house types) for the migrants in Zhejiang Village: Type I: Rental rooms directly from the owner; Type II: Rental rooms from the local government; Type III: Rental rooms through the migrant organization; Type IV: Self-built houses or additions by the migrants themselves. The first three alternatives cover about 90% of the total rental housing.

1) The first housing alternative

Renting rooms directly from the owner was the most popular choice for migrants in earlier times. There were two major advantages: A) It was easily accessible to community infrastructure and services, such as drinking water and electricity. B) It was more secure and steady for two reasons. On the one hand, in most cases, as long as you paid the rent on time, you did not have to worry about the legal status of your accommodation. On the other hand, since the local courtyard houses were usually limited to a certain size, only few families shared a courtyard, making the inter-relationship among the inhabitants more simple. This house type was especially favorable for the migrants who engage in the wholesale business(figures 44, 45). As soon as the tenants have established a good relationship with the landlord, everything becomes easier.

There are three disadvantages:

A) Modifications of the rental rooms are usually forbidden, since the houses belong to the owners and are only temporarily rented to the tenants. This causes some inconveniences to certain tenants. For instance, the rooms in traditional courtyard houses usually have high ceilings but limited floor space. Migrants who engage in clothing manufacture activities, need more floor spaces for different reasons. In Zhejiang vernacular houses, the use of loft space as storage or sleeping quarters is very popular. But this is not acceptable in a local courtyard house.

B) Since room availability in courtyard houses is somewhat limited, the size and type of business of the tenants are thus constrained. For example, if you want to have a bigger clothing processing workshop of over 15 or 20 hired workers, it is definitely not a good idea to rent rooms from a local courtyard house.

C) As the rent is continually raised, it becomes very expensive to rent rooms in local courtyard houses.

2) The second housing alternative:

As housing shortage problems become more and more serious, attempts have been made by the local government to resolve this problem. One approach is that the local government offers a piece of land (often the abandoned land) to build single-story rooming houses and to rent them to the migrants (figure 46). For example, in 1991, the local government of Dongluoyuan village built 240 single-story rooming houses (average 10m² each) with funds primarily collected from the migrants. The monthly rent for each room was 280 *yuan* which was cheaper than renting similar-sized rooms from a local courtyard house. However, this approach was not approved by the Beijing Municipality. Only few of them exist today while most of them subsequently evolved later into the third alternative.

3) The third housing alternative:

By either leasing the land or buying the original rooming houses illegally from the local government, several capable migrants started their real estate business. Since the real estate developers were originally migrants, they are more knowledgeable about what kind of houses are more suitable for the migrants. They usually investigated the possible tenants carefully beforehand, and then designed the houses according to their special needs. This housing alternative started to emerge in the later part of 1992, and soon became very popular. This aggregate of migrant houses is often called a courtyard compound (or *Dayuan*, in Chinese). The No. 2 Jilei Courtyard (figure 47) is one of them.

4) The fourth housing alternative:

The self-built house is another housing alternative for the migrants. The survey shows that the number in this category accounted for fewer than 10%, most of which were concentrated in the central area of Macun (figure 48). Originally, there were no commercial activities in that area, but the migrants have transformed the sub-street into a busy shopping street and have also built up a food market in that area. At the beginning, there were only a few street venders, but the population increased gradually as they decided to move into the area in order to work more efficiently. The only way of doing this was to build the houses themselves. After two years of evolution, the shopping street and the food market finally took their shape, and attracted more migrants to come and build more houses along the street. Although this type of housing only accounts for a small proportion of all migrant houses, the influence of the migrant culture and the migrant lifestyle has been significant.

4.2.4 Problems and Conflicts

The swift expansion of the community has created many problems. Prime examples are the conflict between the rapid development of the community and the inadequate community infrastructure and services, growing crime rates, and unstable social environments, as well as the illegal status of the migrants and the community. All these problems and conflicts are big obstacles for the further development of Zhejiang Village. In the following section, we will look at the major problems caused by inadequate community infrastructure and services.

(A) Circulation and internal transportation system:

The circulation system in the survey field is organized as follows: Small *hutongs*, usually 1-3 meters wide, link the entrances to each household. Several *hutongs* are connected by a sub-street, which is about 3.5 meters wide. The sub-street then leads to the main street -- the 10-meter wide Dahongmen street. The sub-street in the center of Macun was more of a shopping street than a passageway, being packed with various stores selling all kinds of daily necessities.

Lots of self-built houses and extensions invaded the road. Bicycles, red Wenzhou pedicabs and motorbikes, mixed with pedestrian traffic (see figure 49), made the narrow street even more crowded. The red Wenzhou pedicabs were proven to be the most flexible and efficient internal transportation vehicles in Zhejiang Village. It would have been impossible for a fire engine to reach a burning house because the street was so crowded, so there was a real danger of fire hazard.

(B) Access to drinking water:

There are several ways for the migrants to obtain clean drinking water, depending on what kind of housing they choose to live in. Tenants of local courtyard houses usually share water with their landlords. Tenants of migrant compounds might have one wash basin to serve each group of rooms. Migrants who live in self-built houses often collect running water from nearby local residents and pay a certain amount of money per month. Only a very few of them might install a wash basin in their houses which connects illegally with the local running water system. Because of overpopulation in this area, the often run out of water during rush hours. Therefore, most of the migrants have to collect and store some drinking water everyday in a large pot or a water bucket kept for daily use (figure 50).

(C) The sewerage and waste disposal:

The existing sewerage system of this area is already obsolete, and the expansion of the migrant population has further aggravated the problem. The poor sanitary conditions of Macun shopping street is a typical example: in the middle of the street, is a long, narrow, irregular channel which functions as the open sewage system to carry away the dirty water (figure 51). In winter, the street is filthy and icy; while in summer, it has a acrid odor with flies everywhere.

Waste disposal is another big problem. According to the regulations, the residential committees of the local administrative village are responsible for collecting garbage. Each migrant must pay a 5 *yuan* sanitation fee per month. However, the organization that collects the money does not carry out its duty.

Since there are no private toilets within each household, easy access to the public toilet is very important to both the migrants and the local residents. Due to the rapid population increase, the quantity of original public toilets is far from adequate. In addition, the hygienic condition of the public toilets is very poor. Serious arguments arise frequently between the migrants and the local residents. As a result, garbage is scattered everywhere (figure 52). The inhabitants have suffered greatly from this inconvenience.

(D) Access to electricity:

Zhejiang Village is like a big 'factory'. There are numerous workshops in this area requiring a large amount of electricity for their operation. However, the original local electrical system has already been overloaded, and frequent power cuts are a common occurrence. However, because of the desperate need for electricity, some migrants still make the illegal connections. This has caused a lot of problems (figure 53).

4.3 Summary

The emergence of Zhejiang Village was not all by chance. The land-population imbalance, and the poor natural condition of the rural area, as well as the original business orientation created an irresistible 'push' for the migrants to leave their homeland. At the same time, the favorable social context and the huge market potential in Beijing not only provided the opportunities for the formation of Zhejiang Village, but also helped it to grow.

The development of Zhejiang Village has been greatly influenced by the adjustment of national policies. By reviewing its history of development, we find that rural-urban migration is a long-term and inevitable nationwide problem. Our governments have to be fully aware of the existing problems while recognizing that clearance is not a solution; it is important that they try to formulate some corresponding policies to accept and integrate the migrants.

Through the field survey and general analysis, we also find that Zhejiang Village has become a self-sufficient migrant community in many ways; first, it has

created a communal identity; second, it has established an external network and internal mechanism for the economic activities of the migrants; and third, it has, to some extent, resolved the accommodation problems in their typical way.

However, the relationship between this migrant community and the local residents is purely practical, operating as a system of supply and demand without any regulations or social recognition between them. As a result, many problems have arisen and still remain unsolved. The integration between Zhejiang Village and the city of Beijing is incomplete, insufficient, and unstable.

Chapter 5
Findings and Analysis of the Use of Domestic Space

5.1 Income Generation Activities and the Use of Domestic Space

Income generation activities have played an important role in the life of the self-sufficient migrant community, as well as influencing the utilization of domestic space in migrant houses in Zhejiang Village. As already noted, there are two major categories of business type in Zhejiang Village: the market-oriented business and the community-oriented business. Through the field survey, we have discovered that the influence of economic activities is the dominant factor in decisions regarding the use of domestic space in migrant houses in Zhejiang Village. The domestic space utilization patterns of the migrant houses vary according to the business run by their inhabitants. The basic rule is that the division and utilization of domestic space must always meet the spatial needs of different economic activities. In other words, whenever there is a conflict, economic activities always have priority.

6.1.1 The market-oriented business and its implication in domestic space utilization

The market-oriented business includes two major types of enterprise. One is clothing processing and manufacture. The other is clothing marketing. Table 5.1 shows the distribution of the samples which belong to each category. In migrant houses where the inhabitants are engaged in clothing processing and manufacture, the minimum requirement is for enough space to accommodate a number of sewing machines, and to store raw materials and ready-made clothes. Sleeping space for employer and employees is also necessary. The business type, size, location,[93] and household structure all influence the division and utilization of domestic space.

[93] Here different locations mean the choices of different housing alternatives.

1. Clothing Processing and Manufacture

Clothing processing and manufacture is the dominant type of business in Zhejiang Village. It is also the major factor affecting the existence of Zhejiang Village. Compared to other business types, clothing processing and manufacture is considered to be the most difficult technical work. There are two groups of people involved in the work: the tailor, and the sewing worker. Whether a profit is made or not depends on many factors, the primary ones being the skill of the tailors, and the styles of the garments. In most of the clothing processing workshops of Zhejiang Village, the business owners, or their wives are often the tailors, while the origins of the sewing workers vary from household to household. Sometimes they are young relatives of the owner (or owners, in cases of couples or brothers or sisters), such as the nephews or nieces. Sometimes they are hired laborers from the same hometown as the owners, or they come from other migrant communities which are very often the Sichuanese. In some cases, they are a mixture of the above categories. The available capital or investment, and the number of hired workers determine the size of the workshop. Further, the size of the workshop, available space, household structure, and different housing alternatives determine the division and utilization of domestic space. Here we take the size of the workshop as a dominant factor to form a descriptive category of the survey samples:

(1) Large-sized workshops

A clothing processing workshop with an investment of over 100,000 *yuan* and more than 8 sewing workers could be considered as a large sized workshop.

Sample 1: A large-sized workshop in #15 Macun

#15 Macun is a mixed-use local courtyard house. It is located along Xiang'si road in Macun (figures 54, 55). The total site area of this courtyard compound is about 240 m^2. At the time of the survey, it was occupied by eight households (about 20 migrants). The landlord's family lived in the northeast corner (room F & G).

As shown in figure 54, room E was rented to a couple who were engaged in clothing processing and manufacture business. The owner, Mr. Huang, was about 35 years old. He and his wife were both skillful tailors in their hometown. They first came to Beijing in 1986 and they started renting this place in 1988. They had a family of three, but only the couple lived here; their 8-year-old son was studying in a primary school in their hometown.

There were 8 additional hired workers in this household (four female teenagers and four male workers). One of the male workers was a nephew of the owner, the other three were Sichuanese. All the female workers were girls from *Yueqing,* the hometown of the owner. The total investment of this workshop was about 120,000 *yuan*. Excluding a monthly rent payments of 1050 *yuan* (= $175 can.), their average monthly income was estimated to be around 60,000 *yuan*.

The size of the workshop was about 4m x 10m. Most of the space in the room (about 26m^2), which was contained seven sewing machines, one lockstitch machine and two tailor's working tables, was used as the work area (figures 56-A, B, C). A small space (about 4m^2) in the northwest corner was used as a storage space for ready-made clothes. The pure living space (or the sleeping space) was only about 10m^2. The room was extremely crowded. In 1993, the house owner allowed Mr. H to add a loft space against the eastern wall to improve the overcrowded condition of the workshop.[94] All of the room, except for the sleeping space, was used for economic activities, any space for daily activities such as eating, resting, socializing and entertaining having been almost entirely eliminated or combined with the economic activities. As there was no kitchen, cooking always took place in the corridor. In summer, daily activities such as washing, eating, and socializing often extended into the corridor and the narrow courtyard. The distribution of space is shown in table 5.2.

[94] This is a rare case compared to other migrant houses in Zhejiang Village that are rented from the local residents. Usually, living in a rental room from a local courtyard house, the tenants do not have the right to modify their living environments, particularly if the landlord does not allow them to do so. This phenomenon is somewhat related to the different cultural traditions between the migrants and the local residents.

(2) Medium-sized workshops

A clothing processing workshop with an investment of about 50,000 *yuan* and 3-5 hired workers can be considered as a medium-sized workshop. Samples 2 and 3 belong to this category.

Sample 2: A medium-sized workshop in # 55 Macun

This migrant compound was originally a local peasant's house. As shown in figure 57, the northern and western parts of the house were built in 1971 to form an L shape surrounding a rectangular courtyard. In 1992, the house-owner added four small rooms along the southern wall of the courtyard. At the time of the survey, the courtyard was reduced to a corridor (figure 58). The total site area of this courtyard compound was about 148 m^2 which was occupied by 8 households (about 19 migrants) The landlord (an old couple in their fifties) lived in room C.

Room A and three other rooms on the south (rooms H. I. J) were rented to several street vendors. Room B was rented to a couple who was doing wholesale business. Rooms E and F were rented to a lady who owned this clothing processing workshop. Room G was rented to four men who were engaged in the pedicab service. Room D was a kitchen mainly used by the landlord's family (figure 57).

The owner and tailor of the workshop, Ms. Chen, is a 38-year-old divorced lady who came to Beijing in 1988 from *Yueqing* county. She was already a skillful tailor in her hometown before she arrived in Beijing. She rented rooms E and F in 1990, and invested 50,000 *yuan* to start her own business. After paying a monthly rent of 600 *yuan* and other costs, her average monthly income was about 20,000 *yuan.*

Room E was the tailor's working and living space (figure 59-A). It measured 3.3m x 3.6m and was furnished with a single bed, a table and two small chairs; a long cutting board was placed against the northern wall with a 16" color TV. Working space occupied 4 m^2, about 33.7% of the room. Daily activities such as eating cooking, sleeping, socializing and entertaining, occupied the rest of the

space. Room F was the workshop (3.3m x 4.5m). It was packed with three sewing machines and one lockstich machine (figure 59-B). A long table was placed against the western wall. A wooden shelf was placed against the northern wall. Four female teenagers (one of them was a niece of the boss who was learning to be a tailor, the other three were hired workers from their home town Yueqing) worked and lived in the same room. The girls shared the sleeping space under the long table. Without counting the space under the table, the space used for economic activities was almost 100%(see table 5.2).

(3) Small-sized workshops

A clothing processing workshop with an investment of less than 10,000 *yuan,* 1-3 sewing machines and 0-2 hired workers could be considered as a small-sized workshop. According to the survey, about 60% of the clothing processing and manufacture workshops in Zhejiang Village were small-sized workshops and most of them were accommodated in the migrant compounds. Samples 4 to 10 belong to this category.

Sample 4: #3 in Row 6, a small workshop in No. 2 Jilei courtyard

No. 2 Jilei courtyard was located at the center of Macun village, next to Macun food market (figure 60). It was originally built as temporary dormitories for young workers in the No. 4 rubber factory. Later, as they were out of use, the local village committee gradually started renting them to migrants. Because of the confusing and ineffective administration system at that time, living conditions in this residential compound had deteriorated. In 1988, a Zhejiang native from Yueqing county named Wang Jilei signed a 20-year lease with the local factory and Macun village to take over the original rooming houses. On the basis of investigations of the actual needs of the migrants, he did a thorough renovation of the original houses: the height of each room was raised 1.5 meters in order to add a loft. An administration office was provided at the entrance of the compound (see figure 62). There were, altogether, 7 rows and 106 rooms in this migrant compound. Each row of houses was equipped with one water basin (figure 63). Part of the narrow corridor was used as a cooking area (figure 64). A cast iron

gate (figure 61) was also installed at the main entrance with a sign written " No. 2 Jilei Courtyard".[95] Because of its convenient location (next to the Macun food market, and not far from many wholesale markets on Dahongmen street) and effective administration, it soon became very popular.

There were three sizes of rooms in this compound. 3.6m x 5m(type A), 3m x 7.2m (type B), and 3.3m x 7m (type C). 90% of the tenants in this migrant compound were involved in the clothing processing business. The rest were engaged in the wholesale business. The average rent per room was about 300 *yuan* per month.

#3 in Row 6 was one of the typical small-sized workshops (figure 65). The owners were the Zhang sisters, aged 17 and 19 at that time,. They owned a small clothing processing workshop for suits and fashion clothes. The Zhang sisters first came to Beijing in 1988 from Yueqing county, having learned sewing skills in their hometown. From 1988 to 1990, they worked as sewing workers for their uncle who also lived in Macun. In 1990, they decided to open their own business. They rented this room in the No. 2 Jilei courtyard, and invested about 8,000 *yuan* to start this small workshop. Now, they have two sewing machines and one hired worker (an 18 year old girl from their own home town). After paying 300 *yuan* for the rent, and 1800 *yuan* for other expenses, their average monthly net income was about 8,000 *yuan*.

As shown in figure 66-A, this 7m x 3.3m space was divided into two parts: the front part (2m x 3.3m) was basically used for daily activities, such as cooking, eating, washing and meeting people. It was furnished with a small dining table and two chairs, a gas stove, a cupboard, and a water tank. The rear part (3.3m x 5m) was further divided vertically into two levels: the ground level was mainly used for working, except for the space under the tailor's cutting board which was used as a sleeping place for the hired worker (figures 66-B & C, 67-D). A

[95] This migrant compound was named after its owner Mr. Wang Jilei who was responsible for providing the tenants necessary services, to solve certain problems, and of course to collect rent. There were three such compounds in this area that were owned and administrated by Wang Jilei. This one was called No. 2.

movable ladder led to the loft which was used as a sleeping and a storage space for the sisters (figure 67-E). The space allocation in this example is shown in table 5-2.

2. Clothing marketing (wholesale and retail) business

Clothing marketing (or clothing wholesale and retail) business is another important business in Zhejiang Village (figures 68, 69). There are two types of circulation routes in both the wholesale and the retail business:

(1) the direct route which means that the products are sold to consumers through the Zhejiang migrants. There are several ways of doing this, such as renting counters in big shopping centers, renting market stalls in big wholesale markets, or renting street fronts to sell the clothes directly to customers.

(2) the indirect route which means that instead of selling the products directly to customers, the products were sold to other business people, such as the owners of local garment shops and boutiques, local clothing peddlers, import and export departments of Beijing, or even foreign merchants from Russia and Eastern Europe. As the first category is more closely related to Zhejiang migrants and also influences their living style and space utilization, we are going to look at some examples from this category.

The survey shows that[96]migrants who are engaged in the clothing wholesale business could be divided into five categories:

(A) The owner is both the sales representative and also the garment producer, meaning that the same person owns both a clothing processing workshop and a market stall at the same time, and sells only his/her own products. For example, Madam Wang (aged 35), rented a market stall in Jing-wen garment market, where she only sold the garments from her own workshop which was managed by her husband and 3 hired workers. They rented two rooms from a local peasant family in Shiliuzhuang village, she came to the market everyday by tricycle. Another case is Mr. Jiang (aged 23), who looked after the market stall

[96] Part of the information come from the survey of this thesis, part of the information refers to Wang Chunguang (1995), 141-143.

while his parents lived in Macun with another four hired workers manufacturing leather garments.

(B) the wholesaler and the producer are close relatives, such as brothers, sisters, parents and the married sons or daughters. For example, Mr. X.P.Q. (aged 62), who rented a market stall in Muxiyuan Light Industry Wholesale Market, sold only suits manufactured by his daughter and son in law who lived and owned a clothing processing workshop in Dahongmen Houjie.

(C) the wholesaler and the producer are friends or fellow villagers.

(D) the wholesaler and the producer are reliable business partners.

(E) some of the wholesalers sell the products from cities such as Fujian, Guangzhou and Wenzhou, as well as from Zhejiang Village.

Migrants in the first two categories are often found living with or close to their family or relatives who are engaged in the clothing processing business. Migrants in the last three situations tend to live independently, but closer to their business location. In addition, migrants who rent counters in shopping centers, or market stalls in wholesale markets often share similar space utilization patterns. As their working space is physically separated from their living space, the use of their domestic space is much simpler than that in migrant houses where inhabitants are engaged in the clothing processing business. Also, they have more freedom to choose the location of their accommodation. According to the survey, most of them choose to live in rented rooms in local courtyard houses, or in migrant compounds in Zhejiang Village. For these migrants, living in such rental rooms means that they are closer to their relatives and friends, and within easy reach of their business partners--the producers, as well as being safer.[97] Samples 11 to 14 are belong to this category.

[97] Here, "safer" means two things:1) comparing to other housing alternatives, to live in rental rooms in local courtyard house one does not have to worry about the legal status of the accommondation; 2) migrants who are engaged in the wholesale business often stay with their business during most of the daytime, while the local residents could keep an eye on their belongings.

Sample 11: # 31 Macun

This is a local courtyard house. The landlord, an old couple, lived in the three big rooms which face the south (figures 70, 71, rooms A, B, and C). The two rooms on the other side of the courtyard (rooms D and E) were rented to a couple and their son as a clothing processing workshop. To the west of the courtyard, the landlord added two rooms (rooms F and G) in 1986. They were rented to two brothers' families who were both employed in the wholesale business. The elder brother, Mr. Chen, was 33 years old. He lived with his wife and his 6-year-old son in room G at the northwest corner of the courtyard (figure 70). He first came to Beijing in 1986 and had been engaged in clothing wholesale business for 8 years. He started renting this room in 1988. At that time, the rent was 200 *yuan*. As he had been living there for many years and had established a very good relationship with the landlord, he now paid only 300 *yuan* per month for rent and utilities.[98] Both he and his wife rented counters from the Jing-wen garment market and their son was in Yihe kindergarten which was also run by the Zhejiang migrants (see sample 28). Their average monthly income was about 10,000 *yuan*.

As shown in figure 72-A, room G measured 3m x 4.5m and was furnished with a double bed, a dining table with three chairs, and a desk. A 16" color TV together with three wooden suitcases are the only possessions of the family. The room was mainly used for their daily activities: sleeping, eating, washing, cooking, entertaining (or playing, for the child) and socializing. Almost no economic activities were ever involved (figure 72-B). The distribution of interior space utilization is in table 5.3.

Sample 12: #55 Macun room B

As already noted in sample 2 (figure 57), room B was rented to a couple who were involved in the clothing wholesale business. The Xu couple first came to Beijing in 1988 from Yueqing, and they started renting this place in 1990. They originally had two market stalls in Muxiyuan Light Industry Wholesale Market

[98] Usually to rent a room of such a size in such a location, the rent would be no lower than 350 *yuan* per month.

along Dahongmen street. As the wife had to take care of their 6-month-old baby, only the husband could work (figure 73-A). This situation had increased their financial difficulties. According to the wife, they had to either send the child back to their hometown or find a baby-sitter, as there was no daycare available at that time.

Room B (figure 73-B) had a size of 3.6m x 4.5m, and was simply furnished with a double bed, a drawer, a table with two chairs, a double sofa, a gas stove and a washbasin. Similar to sample 11, the room was mainly used for domestic activities, such as sleeping, eating, entertaining and socializing. In winter they would cook in the room, while in summer they would cook in the corridor. They paid a monthly rent of 380 *yuan*. Their average monthly income was about 3,500 *yuan*. The distribution of space utilization is shown in table 5-3.

The living patterns for migrants who rent street fronts for the purpose of running a retail business vary from case to case. Basically, they are very similar to those in the above categories. However, as their business is more independent, they prefer, if possible, to live in the place where their business is located (see sample 15 in the appendix II). In this case, the domestic space utilization pattern is more similar to that of the vernacular houses in their hometown Wenzhou. The division and utilization of domestic space are determined by their business size, household structure and available space, and very often, the living space and working space are well defined and separated.

5.1.3 Community-oriented Business and Their Space Utilization Pattern

As already noted, community-oriented businesses refer to those which help support the life of Zhejiang Village. It includes many different business types. According to an investigation,[99] the number of migrants who were engaged in internal-oriented business was estimated to be around 22.5% of the total. Among whom, about 60% of them were involved in various clothing manufacture subsidiary businesses, such as raw material and garment accessory vending,

[99] Refer to Wang, Chunguang (1995), 153.

machine repair and electronic embroidery. The latter 40% were engaged in transportation services, catering services, health services, vegetable vending, clinics, kindergartens, real estate, etc. As there are so many categories, it is not possible for this study to analyze each one of them. Besides, in relation to space utilization patterns, some of the above categories are very similar to each other. Under this circumstance, we will study a selection of the samples which belong to the following categories: A) clothing manufacture subsidiaries; B) catering service; C) vegetable vendors in the Macun food market; D) clinics; E) kindergartens; F) self-built grocery stores; G) real estate.

(A) Clothing manufacture subsidiaries

The domestic space utilization patterns in migrant houses with inhabitants who are engaged in clothing manufacture subsidiaries vary from one to another, but generally speaking, they are similar to those with the inhabitants who are engaged in clothing processing business, in that the working space was combined with the living space. There are many different business divisions in this category. The following are samples from two of them: electronic embroidery and machine repair.

Sample 16: #11 Macun, An electronic embroidery workshop

Figure 74 shows an electronic embroidery workshop near the west end of Xiangsi road in Macun, next to the rubber factory. The owner was a 27 year-old man from Yueqing county. He first came to Zhejiang Village in 1990 as a tailor. Soon after, he found out that there was a special need for producing trade marks and embroidery for fashionable clothes. So he rented the street front, and started his electronic embroidery workshop. Now, he had seven embroidery machines and two hired workers (two girls from his hometown aged 17 and 19). He paid 600 *yuan* per month to rent the workshop and his average monthly income was about 5,000 *yuan*. Two workers worked and lived in the workshop, while he and his wife rented another room in the courtyard house behind the workshop which was also a small clothing processing workshop with two sewing machines managed by him and his wife.

In this 2.5m x 5.5m workshop (figure 74-A), the embroidery machine occupied half of the space; there a desk with two drawers which the owner used when he come here during the daytime to supervise the business; a double sofa and a single bed used by customers in the daytime and workers at night (figure 74-B). The distribution of space is shown in table 5-4.

Sample 18: A small machine repair workshop in #15 Macun

As already shown in figure 61 of sample 1, room A was rented to Mr. Zheng (25 years old, single), who came to Beijing in 1990 as a sewing worker. Later in 1992, he rented this street front and started his machine repair business. He offered a repair service for various sewing machines and other domestic electrical equipment. By the time of the survey, he paid 400 yuan per month for the rent and average 15 *yuan* per month for electricity. But the business was not very successful because some retired workers from the local clothing factory often came to Zhejiang Village to offer their service. He estimated that his average monthly income was about 1,800 *yuan*. He had never returned to his hometown Yueqing county since he first came to Beijing. Because his hometown was very far away and it was very expensive to travel there; and on the other hand, most of his family members were in Beijing. His brother and sister-in-law were both working in the wholesale business. They rented room C in the same courtyard.

The room measured 2.4m x 5.1m (figure 75-B). It was divided into two parts: the front part, 3.9m x 2.4m, was mainly used as working space (figure 75-A). It was furnished with two tables, a double sofa, and a wooden shelf full of repair tools separating the front part (working space) from the rear part (sleeping space). The rear part, 1.2m x 2.4m was simply furnished with a single bed. Under the bed there was a suitcase which contained most of the owner's meager belongings. The distribution of domestic space utilization was listed in table 5-5.

(B) Catering service

Eating is one of the basic human needs. In Zhejiang Village, there were basically two kinds of catering services: snack bars and restaurants (figure 76). In the hot summer, there were also seasonal refreshment rooms serving cold drinks and ice cream. Various snack bars, serving typical Wenzhou style snacks such as steak noodles, rice noodles, glutinous rice cakes, various kinds of seafood and fish- ball soup (figure 77), were very popular in Zhejiang Village.

There were about 40-50 of them at the time of the survey. Most of the migrants who ran snack bars were people in their 50s. Very often they initially came to Beijing to take care of their grandchildren, and later became involved in the catering service. Self-built by the migrants, most of the snack bars were additions to a nearby courtyard house along the sub-streets or main *huton*. The migrants could only build with the permission of the local village committee and often they had to pay about 200-300 *yuan* administrative fees[100](the amount paid varied according to the size and location of the business). Most of the snack bars were small and simply equipped. Very often, the migrants who owned the business still lived in the rental rooms in the nearby local courtyard.

Sample 22: # 25 Macun, A snack bar

Figure 78 shows a typical snack bar in the center of Macun. The original owner who built the addition in 1990, sold it to the present owner in 1993, at a price of 5,000 *yuan*. Four wooden columns supported the asbestos shingle roof. The northern wall of the snack bar was the original brick wall of the courtyard house. The eastern wall was made of bricks, and the other two walls were built with wooden panels and cardboard with pieces of plastic membrane to allow light into the room.

The owners were a middle aged couple. The husband, Mr. Q (aged 55), and his wife (aged 50) first came to Beijing in 1992 to visit their son who had a clothing processing workshop in Macun at that time. In 1993, their son helped

[100] The administrative fees basically include the land utilization fee and the environmental sanitation fee.

them to start this small business. At the time of the survey, this couple was living in the rental room connected to the little bar. They paid a monthly rent of 250 *yuan* for the room and a 300 *yuan* administration fee to the local village committee. Their average monthly income was about 5,000 *yuan*.

The snack bar was 3m x 4m and was naturally divided into two parts: the kitchen and dining area (figure 78-A, B, C). The kitchen occupied the eastern half of the room, and in the other half, there were three tables. Behind the snack bar, there was a small room (2.4m x 3m) which was connected to the bar and used as a multi-purpose room (sleeping, entertaining, and socializing) for the old couple. The room was originally open to the courtyard. For the convenience of the business, the landlord allowed the couple to open a door to the snack bar. The distribution of domestic space is shown table 5.4.

Sample 23: A snack bar in No. 2 Jilei courtyard

As shown in figure 79, this was a snack bar that linked the No. 2 Jile*i* courtyard with the Macun food market. The owner Mr. Tu (aged 53)and his wife (aged 49) had been running this small business since 1989, not long after the Jile*i* courtyard was put into use. He built a shack, using the two side walls of the original passage way between the Jilei courtyard and the Macun food market, and then started his little business. Later in 1992, he added two brick walls on the southern and northern side of the bar and also divided the space into three parts: the middle part, 3m x 4m in size, was used as a passage way, a kitchen, and a dining area (figures 79-A, B). It was furnished with a refrigerator, a gas stove, a cutting board, a table with three stools, a raised cement platform for a water tap, and for storing bowls and plates. The eastern room, 2.7m x 4m, was used as the bedroom for the old couple. Their 17 year-old daughter, a vegetable vendor, lived in the same room, while the other room, also 2.7m x 4m, was partly used as a dining area for customers and partly used as a sleeping space for their 25 year-old son and daughter-in-law who were operating a clothing wholesale business. The distribution of space is shown in table 5.4.

C) Vegetable vendors in Macun food market

There were two food markets in Zhejiang Village: the Macun food market and the Dongluoyuan food market. Of which, the Macun food market was bigger and more popular (figure 80). There were about 200 to 300 migrants who were vending vegetables in Zhejiang Village. About 52 households (160 migrants) lived near the Macun food market. This food market was first formulated in 1988. Later in 1991, Cai Arde, a Zhejiang native, signed a 10-year lease with the local village committee and paid the local village 200,000 *yuan* to take over this food market.[101] He then re-rented the market stalls to his fellow villagers. Most of the migrant houses around the food market were originally built by the migrants. However, by the time of the survey, about 95% of the inhabitants in the Macun food market rented rooms from Cai Arde (figure 81). For migrants who were only engaged in vegetable vending, the use of domestic space was much simpler as shown in sample 24. For those engaged in more than one business, such as in sample 25, the distribution of domestic space was more complicated.

Sample 24: #15 Macun food market

This sample shows a typical vegetable vender's house(figure 82). The tenants were Mr. Lin (aged 38), his wife (aged 35) and their son(aged 14). They came to Beijing in 1990 and started their business in this food market soon after they arrived. They sold fresh vegetables and dry fruits. The husband was responsible for replenishing the stock, and his wife and son were engaged in vegetable vending. They paid a rent of 250 *yuan* per month for the house and 200 *yuan* to rent the two market stalls. Their average monthly income was about 3,000 *yuan*.

The room was 3.6m x 3.9m (figure 82-A). The space arrangement in this migrant house was very simple. The room was vertically divided into two levels (figure 82-B). The ground level was furnished with a double bed, a single bed, a

[101] Without a permit from the Beijing Municipality, this lease was considered totally illegal when this food market was demolished by the end of 1995. This problem was mainly because of the overlapped land management system which was mentioned previously in Chapter 2.

table, a drawer, a sofa and a stove. During the daytime, it was mainly used for domestic activities, such as cooking, eating, sleeping, entertaining and socializing, while at night, it could also be used to keep some surplus goods from their market stalls. The loft space was always used for the storage of surplus goods and other miscellaneous items. In this situation, their major economic activities were outside their home, therefore, the division and utilization of the domestic space were simpler although still multi-functional (see table 5.4).

Sample 25: Room # 45 of the Macun food market

As shown in figure 83, this was a migrant house on the southern side of the Macun food market. The tenants, a couple from Qingjiang, had been renting this room since 1991. The husband, Mr. Chen, aged 42, sold local Wenzhou products, such as dried small shrimps and dried vegetables, and snacks in the market. In addition to helping her husband with his business, Mr. Chen's wife, aged 37, also did some clothing processing work for her brother, who owned a small clothing processing workshop.

The room was 3.6m x 4.5m (figure 83-B) and was vertically divided into two levels: the ground floor and the loft. The eastern half of the ground floor was occupied with a 1m wide long wooden board used for all purposes such as cutting out garments and preparing food (figure 83-A). The space under the board was used as a storage space for the surplus goods, raw materials and other miscellaneous things. The sewing machine was in the middle of the house. Against the western wall, there was a wooden shelf packed with all kinds of ingredients and containers for making snacks. Up in the loft, was the sleeping area for the couple which was about 6 m^2. The division and utilization of the domestic space was very complicated. The ground level was used mainly for economic activities such as making clothes, making snacks, checking and dividing the goods. At the same time, it was also used for eating, cooking, and meeting people, depending on occasion. The loft space was mainly used for sleeping. The distribution of space is shown in table 5.4.

D) Clinics

Visiting a doctor has been a big problem for migrants in Zhejiang Village, especially for newcomers, because of the communication difficulties.[102] Various migrant clinics have emerged for this reason. Most of the doctors in migrant clinics came from the Yueqing county. Some of them were retired doctors from the local medical work unit, some of them were folk doctors,[103] and some of them were nurses or even veterinarians. It was estimated that there were more than 50 clinics in Zhejiang Village at the time of the survey. The smaller ones were often converted from the rental rooms of a local courtyard house. The bigger ones were mostly rebuilt from the existing buildings with new additions. For the convenience of business, migrant clinics were often found to be along the main streets or sub-streets.

Sample 27: A clinic in Macun

Figure 84 shows a typical example of a migrant clinic in Macun, which was owned by a young couple, Mr. Zhang (aged 33) and his wife, both of whom had graduated from a local medical school in Wenzhou in 1984. In 1992, this couple came to Beijing and rented three rooms from a local courtyard house in Macun where they started this little clinic in Zhejiang Village (figure 84-A). They usually dealt with common diseases, such as influenza, headache, and stomach ailments, or with treatment of light injuries, occasionally performing simple operations such as abortion or the delivery of babies. Compared to formal clinics in local Beijing, their devices and equipment were far below standard.

As shown in figure 84-B, room A, 3m x 5.4m, was divided into two parts. The front part (3m x 3.6m) was used as a consulting room, the rear part (3m x 1.8m) was used as check-up room. Room C (2.4m x 4.2m) was used as the

[102] Although Wenzhou people are also Chinese, their local language is very different from the standard Mandarin that most Beijing residents speak. Only a very few well educated Wenzhou migrants can speak Mandarin. This has created a big communication problem for many migrants. It is very difficult for some migrants to explain their problems when they have to visit a doctor in a local hospital or clinic.

[103] Here, folk doctors mean those who learn some medical knowledge by themselves without any formal training. In some remote rural areas in China, folk doctors are very popular.

operation room. Room D (2.4m x 4.2m) and E (3.3m x 4.2m) were used as wards. Room A also connected to room B, the couple's living section, a small room (3m x 3.9m) furnished with a double bed, a table, two chairs, a TV, a refrigerator, a gas stove and a wooden shelf. Room B had a door opening to the courtyard of the landlord. Generally speaking, the use of domestic space in this case was well defined: the living section of the doctors was separated from the patients' section. But if one examines this in detail, some of the rooms were still multi-functional because of limited space. The basic distribution of space is shown in table 5.5.

E) Kindergartens

As already noted in Chapter 3, because the majority of the migrants are between the ages of 21-30, many migrant families have young children, some of them even have more than one.[104] Obviously, the chief intention of the migrants was to make money, so they had to work intensely to make enough money to support the family and to save some money, if possible, for the future. But the few existing kindergartens and daycare in the local villages were far from enough. So there was a great need for daycare or kindergarten services in Zhejiang Village. At the time of the survey, there were about seven kindergartens in this migrant community. Most of the kindergartens were converted from local courtyard houses with some new additions.

Sample 28: Macun Yihe kindergarten

Yihe kindergarten was located in the center of Macun; a small *huton* connected it to Xiangsi road, one of the major sub-streets in Macun (figures 85, 86). Mrs. X (aged 38) and her husband established this kindergarten in 1992. The idea was initiated because of the economic difficulties of raising a child in this community: they had two children, one was 6, the other was 3, but there were no local kindergartens that could accept their children, and they couldn't afford to hire a baby-sitter. Thus their predicament inspired them with this idea: why

[104] China's "one child policy" is well known. It is very effective when combined with the household registration system. However, it does not apply to migrants who do not abide by the household registration system.

couldn't we have our own kindergarten? Shortly afterwards, they rented this courtyard from the local family, and started their business.

At the beginning there were only 30 youngsters, aged 2 to 7, in one group. By the time of the survey, the kindergarten had about 100 children that were divided into three groups: one group had 30 children aged from 2 to 3, another had 35 children aged from 4 to 5, and the pre-kindergarten group had 35 children aged from 6 to 8. They hired four teenage girls, who just graduated from the high schools of their hometown, to look after the children. The average monthly fee was 150 *yuan* per child. The business hours were from 8 am until 6 p.m., six days a week. The owner had to pay 1,200 *yuan* for rent, and 2,800 *yuan* for the salaries. Other expenses were about 4,000 *yuan*. So on the average, this couple could earn about 7,000 *yuan* per month.

As shown in figure 85-A, room A, 4m x 6m, was the major room in the original courtyard. Now it was used by the second age group (4 to 5 age group). The room was divided into three sections, simply furnished with four rows of long, narrow benches and tables for thirty five children, a desk for the teacher and a blackboard on the eastern wall (figure 85-B). Room B, 4m x 5.1m, was also one of the rooms in the original courtyard. It was now used by the first age group (ages 2 to 3) during the daytime, and was also used as the four teachers' dormitory at night. It was simply furnished with some thirty little chairs freely arranged in the room, a desk with one chair, a wooden shelf with some little toys and picture books against the southern wall, four foldable beds against the northern wall for the teachers to sleep on at night. Room C, the toilets (4m x 3m), were additions built in 1992. Room D, 3m x 4.5m was added to the courtyard in 1993, and now it was used as the office and also as the home of the couple who ran the kindergarten. It was furnished with a double bed, a double sofa, one table with a chair. Room E, 4m x 6m, was built in 1994 when the kindergarten was enlarged from two groups to three groups and the interior arrangement was exactly the same as room A. Because of the constraints of the site, the only playground

(about 5.5m x 5m) was the little square courtyard with a children's slide and a water basin (figure 86-D). The distribution of space is shown in table 5.4.

F) Self-built grocery stores

As mentioned earlier in this chapter, there were many self-built migrant houses along the main shopping street of Macun (figure 48). About half of them had two floors; the ground floor being used either totally or partially as a store selling fresh fruits or daily necessities, while the second floor was used as a living space for the owner or the owner's family. Although this migrant house type occupied only a small proportion (about 10%) among all migrant housing alternatives, it was undoubtedly one of the major reasons why Zhejiang Village was so distinct from both the local residential neighborhood and other migrant communities. The living patterns of the migrants who lived in these self-built migrant houses were so similar to the original living patterns of the migrants in their hometown. The use of domestic space in this migrant house type was greatly influenced by their economic activities, and moreover, by their cultural backgrounds and spatial traditions. Sample 29 is a typical example.

Sample 29: A self-built migrant house in Macun

This was a typical self-built migrant house along the central shopping street of Macun (figures 87, 88). The owners were an old couple: the husband, Mr. Zhang, aged 55, came to Beijing in 1986 as a construction worker. In 1990, he retired from the construction site and settled down in Zhejiang Village. At that time, the Macun shopping street had not yet taken its form. Mr. Zhang chose this site near the food market, and also along the main *huton*. He gathered some materials from his original work site and built a simple shack from which he sold fruit and cigarettes. In 1991, he brought his wife, his daughter and his son-in-law to Beijing. With their help, he rebuilt the house into a two-story wooden house. By the time of the survey, the owner himself was engaged in a pedicab service in Zhejiang Village. His wife was taking care of their little grocery store. His daughter and son-in-law were operating a wholesale business in Muxiyuan Light Industry Wholesale Market along Dahongmen street. He had made an agreement

with his neighbors, a local Beijing family, to connect the electricity and the water pipe with the local infrastructure system. They paid 20 yuan per month for water and 20 yuan for electricity.

As shown in figures 87-A and 87-B, the ground floor was divided into two parts: the semi-open space and the enclosed space. Two wooden posts supported the upper floor and formed a 2.4m x 3m semi-open space which was ideal for a small home based grocery store. The wife of the house owner was taking care of this store and looking after their granddaughter at the same time. This semi-open space was used not only for economic activities, but also partly for daily activities, such as cooking, socializing, playing with the child, and eating.

The enclosed part, about 3m x 3m, was furnished with a double bed, a small stool to hold the electric fan, two wooden suitcases and some boxes of fruit intended for sale. It was basically used as a bedroom for the owner couple, and also as a transit space for the narrow wooden stair case leading to the second floor (figures 88-C, 89-F).

Their daughter, granddaughter and son-in-law lived on the second floor which was about 3m x 5.4m. It was furnished with a double bed, a table with a 14" black and white TV, two suitcases and two stools (figures 88-D, 89-E & F). The northeast corner of the second floor was used as a storage space. There were always a few boxes of fruit stored there (figure 88-D). A stove and some extra kitchen facilities were also on the second floor. The use of domestic space on the second floor was mainly for daily activities such as sleeping, eating and entertaining. The distribution of space is shown in table 5.4.

G) Real estate

Since 1993, the real estate business has became an emerging new type of business in Zhejiang Village. Although by the time of the survey, only about 10 people were engaged in this business, the influence of this business type on migrant housing alternatives and the use of domestic space should not be underestimated. As already noted in sample 4, one way of operating a real estate business was by taking over the original rooming houses owned by the local

village and then rebuilding them into suitable migrant houses, such as No. 2 Jilei courtyard in Macun. Another very effective way was by leasing the land from the local village, then planning and designing new rooming houses for the migrants.

Mr. L. and Mr. H. were pioneers in this field.[105] In early 1993, they signed a contract with the local village committee to lease a piece of land in Macun (originally a garbage dump) for five years. The terms of the contract stated that the total land utilization fee was 250,000 yuan (50,000 yuan per year), and 5 years later, the houses would all belong to the local village. The local village committee would be responsible to offer basic services such as water, electricity and telecommunication devices, and the real estate owner would pay for the fees.

By June 1993, the first 40 sets of houses were put into use (Figures 90, 91). There were two basic house types; single-room and double-room. The single room was 3.35m x 6m -- very suitable for a small-sized workshop. The double-room had a total area of about 34 m^2. The bigger room was 3.5m x 5.75m and was used as the workshop, and the loft space was where the sewing workers slept. The smaller one was 2.35m x 5.75m, and was often used to accommodate the owners' family. All of the rooms were arranged back to back, and shared the same roof.

Sample 30: Mr. L, the real estate developer's home

The real estate owner's family lived in the same migrant compound (figure 92-B). But the room arrangement was quite different from other migrant houses. For example, figure 92-A shows the floor plan of Mr. L's home. Room A (4m x 3.5m) was the living room which was furnished with a sofa set, a coffee table, a desk and a chair. Room B (2.35m x 4m) was the bedroom, furnished with a double bed, a wardrobe, a table and two chairs. Room C (1.75m x 3.5m) was the kitchen, furnished with a washbasin, a gas stove, and cutting board (figure 93-C). Room D (1.75m x 2.35m) was the washroom with a washbasin, a shower and a toilet (figure 93-D). The whole interior arrangement was very modern. The function of each room was clearly defined, and the use of domestic space was

[105] The information in this part has combined the field survey together with some information from Wang (1995), 177-182.

much simpler than in other migrant houses in Zhejiang Village(see table 5.4). This phenomenon shows that as time goes on, the urban and modern lifestyle will have stronger influence on the lives and space-utilization patterns of the migrants.

5.2 Cultural Traditions and the Influence on the Space Utilization Pattern

> *When I first visited Zhejiang Village, I was greatly impressed by the whole atmosphere in this migrant community: the street and hutons were packed with all kinds of home based stores and workshops opening to the outside; adults were chatting, socializing and doing business; kids were running and playing hide and seek among those self-built shacks; ...*
>
> *Everything was so vivid and so touching. I felt the complete harmony and the sense of a community which even the dirty environment could not destroy. It was so different from any other residential communities in Beijing including other migrant communities. I assumed that this must have come from somewhere, deep in their roots, their culture. So I decided to take a visit to Wenzhou, the hometown of those migrants. There, I found the answer.*

As noted in Chapter 2, many scholars believe that the most influential factor for the use of domestic space are the cultural traditions of the inhabitants. According to Donald Sanders, among the seven factors which affected the division and utilization of domestic space, building function and cultural conventions are two of the most important ones. As we have discussed in the above 15 sample studies, the differences between the economic activities provide each migrant house with different functions. It seems as if different building functions determine the differences of the use of domestic space. However, on further examination, it is not hard to find that there exist certain fixed similarities behind those differences.

While coming and settling on the periphery of Beijing, migrants from Zhejiang Province have brought with them their original cultural traditions. Undoubtedly, the cultural background of the migrants will have a great impact on their life style and domestic space utilization pattern in their new migrant community--Zhejiang Village. Generally speaking, the division and utilization of domestic space in migrant houses in Zhejiang Village have demonstrated a great influence of their cultural traditions in the following ways:

(1) the strong business orientation inherent in the cultural traditions of their home region give Zhejiang migrants the potentiality for developing suitable living patterns which enables them to combine the economic activities with their daily activities, such as using ground floor space to run a business while living upstairs in the second or third story, or even in the loft.

Sample I: A typical street front house in Wenzhou

Wenzhou, the hometown of most Zhejiang migrants, is a typical, medium-sized commercial city along the southeast coast of China. It is said that almost every household in Wenzhou owns a small business. Wherever there are streets or *hutons*, they are often packed with stores of various kinds. Running a business is a cultural tradition in this region. Every family wants to have a street front to run a business. Therefore, people have developed a special house type: A narrow front opening to the street or *huton*, either owned by the family or rented to somebody for the purpose of running a business (figures 94, 95). Each household occupies a narrow slice of lot that extends deeply into the residential block.

Figures 96 A & B show the floor plan of two adjacent typical street front houses in Wenzhou. Two slices of narrow plots (4m x 10m) are occupied by two families. A narrow steep wooden staircase is located in the rear part of the ground floor, leading to the second floor where the bedrooms for each family member are located. These two families made an agreement in 1990 to add two rooms over the narrow alley between the two families (figure 96-C). A loft space was added to each of the front rooms on the second floor. If we compare sample 29, the self-built migrant house in Zhejiang Village, with this sample, we find that these two house types are very similar: (1) they both have a narrow plot; (2) the ground floors open to a street to run a business; (3) the second floors are used as the living space for the family.

(2) The existing natural conditions and environment of their home region enable Zhejiang migrants to find every possible way to make full use of available space, such as building multi-story houses, efficient vertical division of space, the

flexible and multi-functional use of loft space, as well as the use of movable staircases or ladders.

Sample II: Chen family's house[106]

Figures 97, 98 shows the entire space arrangement in a typical Zhejiang vernacular house. This was a very narrow plot (2.1m x 6.6m) by the side of a bridge on the river bank. The ground floor, located at the middle level of the bridge, was divided into two parts: the front part, 3.3m x 2.1m, with an opening facing the bridge, was used as a convenience store to sell beverages, cigarettes, candies and simple snacks (figure 97-A). It was also used as a family room for eating and socializing. The rear part, 1.5m x 2.1m, was used as a kitchen. A 60 cm wide wooden staircase in the front led 5 steps up to a small space (2.1m x 1.8m) at another level. It functioned both as a living and a storage space. A moveable staircase (or a ladder) was placed just above the wooden ladder leading to the second floor of 2.1m x 2.4m, the sleeping quarters of the owner (figure 97-B). To go to the second floor directly from the ground floor, one had to move the ladder away to get to the lifted ground level first, and then place the ladder above the lower stairway in order to go further up (figure 98-F). There was also a small loft space next to the bedroom, which was used as a storage space (figures 97-C, D). Every piece of space in this sample was properly arranged, connected and fully used (figure 98-E). The entire space arrangement in this vernacular house has convincingly demonstrated the intelligent ways in which the local Zhejiang people use their domestic space. When we look at the samples 1, 4, 24 and 29, we can understand more fully the impact and influence of the cultural background and space traditions on the use of domestic space in these migrant houses.

(3) The existence of the strong kinship ties in Zhejiang Village creates an invisible bond among the migrants, and determines the household structure, the social connection as well as the way in which their businesses are organized. On the one hand, this phenomenon creates a feeling of identity within a community,

[106] The information and drawings in this sample refers to Liu, Xiangzhen (1984), figures 566-571.

and a favorable living environment for the migrants; on the other hand, it eliminates the possibilities for the migrants to integrate into the existing urban environment. This also has great impact on their domestic utilization pattern.

(4) As a sociable migrant group, the use of semi-open space as an extension of domestic space for economic activities, played an important role in domestic space utilization in Zhejiang Village.

5.3. Analysis of data and summary of findings

As we have discussed in the above two sections, 30 samples were chosen from Zhejiang Village, and 15 of them were examined with reference to the variety of economic activities. Moreover, two other samples were chosen from the hometown of the migrants, for the comparative study of the influence of cultural traditions. In each sample, some important information such as the background knowledge about the households, type of business, economic situations, house type, the basic division and utilization of domestic space, has been noted. In the two samples concerning cultural factors, several specific insights have been attained. However, there are more aspects to be discussed hereafter, through analysis of available data at a general level, to provide the summary of findings.

Zhejiang Village is an economic migrant community in that more than 90 % of its inhabitants are engaged in various economic activities. The range of economic activities can be divided into two large categories: the market-oriented business and the community-oriented business. The distribution of samples in different range of economic activities is presented in table 5.1.

From table 5.1, we have a general idea of the range of different economic activities taking place in Zhejiang Village. Although the number of samples chosen from the category of market-oriented business, or clothing processing and marketing business, only occupied 50% of the total (15 samples), this does not mean that it represents the real percentage of migrants who were engaged in this type of business. Actually as mentioned earlier (see table 4.1), the percentage was estimated to be 80%.

Table 5. 1

Distribution of samples referring to occupational categories

Major Category	*Type of Business (Economic Activities)*		*Household number*	*Total*
Market-oriented business	•Clothing processing	small size	7 (6)*	15 (50%)
		medium size	2 (1)*	
		large size	1	
	•Clothing marketing	Wholesale	4 (2)*	
		Retail	1*	
	•Clothing processing subsidiary			
	electronic embroidery		2(1)*	
	machine repair		1	
	providing raw material		1*	
	providing garment's accessories		1*	
Community-oriented business	•Transportation (pedicab service)		1*	15 (50%)
	•Catering service (snack bars)		2	
	•Health service (clinic)		1	
	•Education (kindergarten)		1	
	•Vegetable vender		3(2)*	
	•Grocery store		1	
	•Real estate development		1	
Total	10 types of business (14 activities)		30	100%

Note: * represent the samples which are not presented in the sample studies.

Table 5.2

Distribution of the use of domestic space for migrants who engaged in clothing processing and manufacturing business

Sample Number	Business Size	Space for economic activities	Space for daily activities	Loft / under space	No. of inhabitants	Total
#1	large	30m²(75%)	10m²(25%)	7m²(L)	10	40m²
#2	medium	19m²(70%)	8m²(30%)	5m²(U)	5	27m²
#3	medium	22m²(66%)	11m²(34%)	5m²(L) 5m²(U)	7	33m²
#4	small	16.5m² (72%)	6.5m² (28%)	6.6m²(L) 2m² (U)	3	23m²
#5	small	13m²(72%)	5m²(28%)	7m²(L)	2	18m²
#6	small	14m²(67%)	7m²(33%)	6m²(L)	3	21m²
#7	small	16m²(70%)	7m²(30%)	6m²(L)	3	23m²
#8	small	15m²(75%)	5m²(25%)	7m²(L)	3	20m²
#9	small	10m² (62.5%)	6m² (37.5%)	--	2	16m²
#10	small	12m²(63%)	7m²(37%)	7m²(L)	4	19m²

Note: in the table, (L) means loft space, (U) means under-table space.

Table 5.2 shows the domestic space distribution for migrants who are engaged in the clothing manufacturing business. As almost half of the clothing manufacturing workshops are concentrated in migrant residential compounds, the domestic space utilization patterns of migrant houses in this category are more obvious. In table 5.2, we can see that economic activities occupied a large proportion (more than 60%) of domestic space in this category. Six out of ten samples have over 70% of space used for economic activities.

Here we need to point out two things. First, as both the loft space and the under table space were not over 2m, they were not included in the total area when we calculate the percentage. However, they can not be underestimated; as we can see from the table, every sample uses the loft space or the under-table space or even both, as the supplement to their lack of enough living space. From the distribution of domestic space in these samples, it is very obvious that economic activities are on the top list of the priorities in the use of domestic space. Also, the larger the business size, the more economical the use of domestic space.

Second, even though we calculate the distribution of domestic space in a seemingly precise way, actually, the use of domestic space often temporally overlapped by more than one activity. Sometimes it is really hard to know where the use of space for economic activities ended and where the living space started.

Table 5.3

Distribution of the use of domestic space for migrants who engaged in clothing wholesale and retail business

Sample number	*Business Type*	*Space for economic activities*	*Space for daily activities*	*Loft space*	*No. Of inhabi-tants*	*Total*
# 11	wholesale	--	13.5m²	--	3	13.5m²
# 12	wholesale	--	16.2m²	--	3	16.2m²
# 13	wholesale	--	19m²	--	4	19m²
# 14	wholesale	--	18m²	5m²	3	18m²
# 15	retail	8m²(53%)	7m²(47%)	2.5m²	1	15m²

Table 5.4

Distribution of the use of domestic space for migrants who engaged in Community-oriented business

Sample Number	Business type	Space for economic activities	Space for daily activities	Loft & other space	No. of inhabi-tants	Tot. (m^2)
# 16	electronic embroidery	10m² (72%)	3.8m² (28%)	--	2	13.8
# 17	electronic embroidery	9m² (69%)	4m² (31%)	--	2	13
# 18	machine repair	9m² (75%)	3m² (25%)	--	1	12
# 19	providing raw materials	4m² (33%)	8m² (67%)	--	3	12
# 20	garments' accessories	7.2m² (60%)	4.8m² (40%)	--	2	12
# 21	pedicab service	--	9 m² (100%)	4m² (U)	4	9
# 22	snack bars	12m²(63%)	7m²(37%)	--	2	19
# 23	snack bars	18m²(54.5%)	15m²(45.5%)	--	5	33
# 24	vegetable vender	4m² (29%)	10m² (71%)	6.5m² (L)	3	14
# 25	vegetable vender	12m² (75%)	4m² (25%)	6.5m² (L)	2	16
# 26	vegetable vender	--	12m² (100%)	10m² (L)	3	12
# 27	clinic	60m²(83%)	12m²(17%)	--	2	72
# 28	kindergarten	68m²(73%)	25.5m²(27%)	--	8	93.5
# 29	Grocery store	11m²(34%)	21m²(66%)	--	5	32
# 30	real estate developer	7m²(19%)	29m²(81%)	--	3	36

Table 5.5 Distribution of living space according to household structure

Sample No.	*No. Of Inhabitants*	*Male*	*Female*	*Child*	*Living space (total, m²)*	*Living space (average, m²)*
#1	10	5	5	0	10	1
#2	5	0	5	0	8	1.6
#3	7	3	3	1	11	1.6
#4	3	0	3	0	6.5	2.2
#5	2	1	1	0	5	2.5
#6	3	1	2	0	7	2.3
#7	3	1	1	1	7	3.5
#8	3	1	2	0	5	1.7
#9	2	0	2	0	6	3
#10	4	1	1	2	7	1.75
#11	3	1	1	1	13.5	4.5
#12	3	1	1	1	16.2	5.4
#13	4	2	1	1	19	4.75
#14	3	1	1	1	18	6
#15	1	0	1	0	7	7
#16	2	0	2	0	3.8	1.9
#17	2	2	0	0	4	2
#18	1	1	0	0	3	3
#19	3	1	1	1	8	2.7
#20	2	1	1	0	4.8	2.4
#21	4	4	0	0	9	2.25
#22	2	1	1	0	7	3.5
#23	5	2	3	0	15	3
#24	3	1	1	1	10	3.3
#25	2	1	1	0	4	2
#26	3	1	1	1	12	4
#27	2	1	1	0	12	6
#28	8	1	5	2	25.5	3.2
#29	5	2	2	1	21	4.2
#30	3	2	1	0	29	9.7
Total	103	39	50	14	--	--

From table 5.5, we see that the obvious difference for the distribution of living space in different samples depends primarily on the type business. For example, the average living space per person in migrant houses with inhabitants engaged in the clothing marketing business is the largest among all business types. Within each business group, number of inhabitants and the household structure (including sex structure) also influence the distribution of domestic space. For instance, in sample 1, there were 10 people altogether. The owner's family had two members, the husband and the wife, and their pure living space was no more than a double bed. Whereas, of the eight hired workers, four females lived up in the loft, four males lived under the cutting board. The arrangement was almost equal. Had there been six male workers and two female workers, the arrangement of the living space would have been much different. We can also see that within the same business type, the more inhabitants in one household, the simpler the sex structure, the lower the percentage of pure living space distribution.

From table 5.6, we can see that the use of loft space played an important role in the use of domestic space in migrant houses. Thirteen out of 30 samples show loft spaces of various sizes. In sample #26, the percentage of the loft space even reached 83%. This table also reveals another important factor; that is, among all samples which have loft space, 11 of them belong to the following two house types: rental houses from the migrant compound (type III) and self-built migrant houses (type IV).

From table 5.7, we can see that 22 out of 30 samples have mixed-use spaces for both economic activities and domestic activities. The average mixed-use space occupies about 67.7% of the total available domestic space.

Table 5.6

Distribution of samples with the utility of loft space

Sample No.	*Total area (m^2)*	*Loft space (m^2)*	*House type*	*Percentage*
#1	40	7	I	17.5%
#3	33	5	III	15%
#4	23	6.6	III	28.7%
#5	18	7	III	39%
#6	21	6	III	28.6%
#7	23	7	III	30%
#8	20	7	III	35%
#10	19	7	III	36.8%
#14	18	5	III	27.8%
#15	15	2.5	I	16.7%
#24	14	6.5	IV	46.4%
#25	16	6.5	III	40.6%
#26	12	10	IV	83%
Total: 13	272	83.1		30.6%

Table 5.7

Distribution of samples with mixed-use domestic space[107]

Sample No.	*Mix-used space(m²)*	*Total (m²)*	*Percentage*
#1	30	40	75%
#2	19	27	70%
#3	20	33	60%
#4	16.5	23	72%
#5	13	18	72%
#6	14	21	67%
#7	16	23	70%
#8	15	20	75%
#9	16	16	100%
#10	12	19	63%
#15	8	15	53%
#16	13.8	13.8	100%
#17	9	13	69%
#18	9	12	75%
#19	12	12	100%
#20	7.2	12	60%
#22	12	19	63%
#23	21	33	63.6%
#25	16	16	100%
#27	18	72	25%
#28	31.8	93.5	34%
#29	7	32	22%
Total 22 samples have mix-used space			67.7%

[107] Here the mix-used domestic space is the space used for both economic activities and daily activities.

Concluding Remarks

Urbanization or population migration has existed since earlier times. More than three decades ago, large-scale migration waves began to create panic in many Third World cities. A vast number of surveys and studies have been conducted on this subject since then, revealing that slums and squatter settlements are no novelty in many countries. Nevertheless, in socialist China, the fact that a large economic migrant community such as Zhejiang Village is being developed to the present scale in Beijing, is amazing and deserves careful consideration.

Roughly two decades ago, China was able to control the population growth in big cities very strictly and effectively through the imposition of extraordinary social and political powers.[108] At that time, Beijing was almost a "forbidden city". Many Chinese wouldn't even dream of visiting this Capital city, let alone living there. However, about a decade later, the brave migrants started to break down the social and spatial barriers, and to establish their migrant communities in Beijing. The emergence of Zhejiang Village is not accidental; it demonstrates that urbanization and social transformation in China has entered a new era. Large scale migration has been inevitable. According to an official estimate,[109] China will have 200 million surplus laborers by the year 2000. Undoubtedly, a large proportion of these laborers will become migrants in the cities. For this reason, it is important that the existence of the urban informal sector and migrant communities in many of China's big cities not be underestimated.

There is a famous legend in China about a hero who once controlled serious floods in the ancient times.[110] The story explains us a traditional Chinese

[108] For more discussions, see Ren, Suhua: "An analysis of China's Urban Population Migration", *China City Planning Review*, Vol. 5, No. 2 (June 1989): 43-45. Also see Leaf, Michael, "Inner City Development in China", *Cities*, Vol. 12, No. 3 (1995): 149.

[109] See Li, Qing (1995) for more information.

[110] It is said that once, in the ancient times, serious floods endangered the Chinese population. An official was assigned to solve this problem. He spent many years to build dams trying to block up the floods but failed. Later, his son *Dayu* was assigned to fulfill this job. Instead of building dams, *Dayu* led people to excavate many rivers and then completely solve the problem.

philosophy, that is; to solve a problem you have to know its nature and then wisely guide the action according to different circumstances, without the force of external power or control. Unfortunately, the recent thorough clearance of Zhejiang Village has made it clear that the attitude of Chinese leaders and governments toward the migrants is still ignoring what has already been proven to be ineffective in many other countries. As Harry A. Anthony writes:

> From the very first appearance of favelas, official policy has been to prevent their births, shatter their growth, and hasten their death.'... Many city governments reacted to their presence in a drastic way: they brought the police to drive the families from the land by force and bulldozers to demolish their shacks and their meager possessions. And then they realized that none of the victims left the city to return to the countryside as they were supposed to do, but instead built new spontaneous settlements in other locations.[111]

Therefore, based on the above considerations, this study provides the following recommendations:

(1). Under the current policies and economic conditions, rural-urban migration in Chinese cities will be a long-term, nationwide problem. Chinese leaders and governments should be fully aware of this, and allow and encourage more scholars to do further studies in this field, in order to gain a better understanding of the problem.

(2). The serious overlapping land management system in the urban fringe of Beijing requires the attention of the municipal government and the city planners, and needs to be solved as quickly as possible. Leasing land to private developers, and encouraging them to invest money in the development of the urban fringe area would be a feasible solution, if it were properly controlled.

(3). The domestic milieu of the migrants, or the migrant communities are important physical attachments of the migrants to the city. To integrate the migrants with the existing urban system, the first and most significant thing is to understand the basic and different needs of the migrants without taking them for granted.

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[111] Anthony, Harry A. (1979), 19.

Various countries have developed different solutions, such as upgrading the existing squatter settlements or providing sites and services.[112] No matter what kind of solution China will adopt, it must provide a meaningful response to the actual needs of the migrants. From the sample studies of Zhejiang Village, we have found that economic activities are at the top of the list of the priorities for the use of their meager domestic spaces in migrant houses. Planners or architects, whenever involved in such projects, should be urged to consider and accommodate the possibilities for combining income generating activities with the domestic environment.

(4). The study reveals that more than 60% of the businesses in Zhejiang Village are small-sized enterprises which play an important role in creating new jobs for the migrants. This phenomenon should not be underestimated. Only the existence and development of these small enterprises could help to absorb the 200 million migrants in the near future.

(5). The study also shows that the migrants belong to a culturally different and independent group, whose background and spatial traditions greatly affect their living style and domestic space utilization pattern. To help them integrate, we have first to accept their differences, and then to absorb the quintessence or the essential part of their culture, such as the ingenious use of loft space seen in the Zhejiang vernacular houses and in the migrant houses in Zhejiang Village. The existing living patterns of the migrants should be respected. The successful combination of living and work within the meagre domestic space in migrant houses which we have neglected in our new housing development should be taken into account for the future improvement of existing migrant communities.

This paper primarily covers the study of the use of domestic space in migrant houses in Zhejiang Village, with an emphasis on the influences of their economic activities and cultural traditions. However, there is an urgent need for further research on migration problems and migrant communities in current

[112] For more discussions, see Aprodicio A. Laquian, *Basic Housing: Policies for Urban Sites, Services, and Shelter in Developing Countries*, IDRC, 17-18.

China. A similar study could be conducted in different communities and different cities, or a comparative study made on a certain aspect in different localities. These are necessary and important in order to help gain a better understanding of the existing problem. Hopefully, this study will make a valuable contribution to the limited literature on this subject, and perhaps will attract more scholars to do further research.

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Appendix I : List of Figures

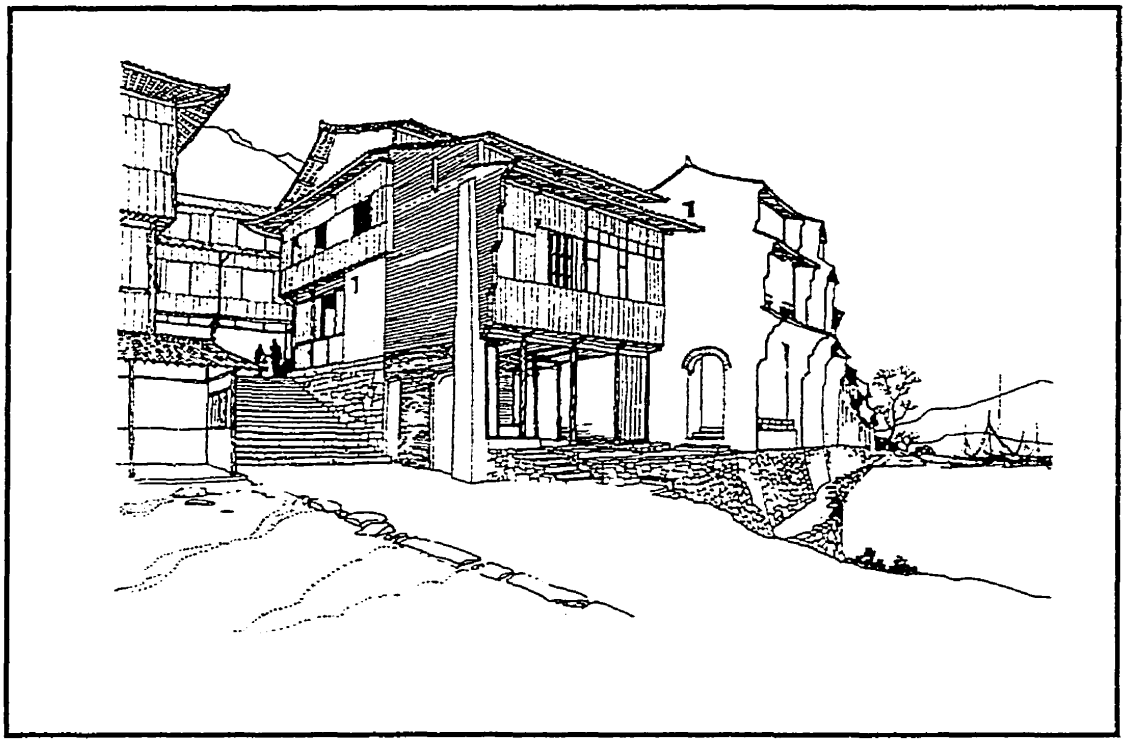
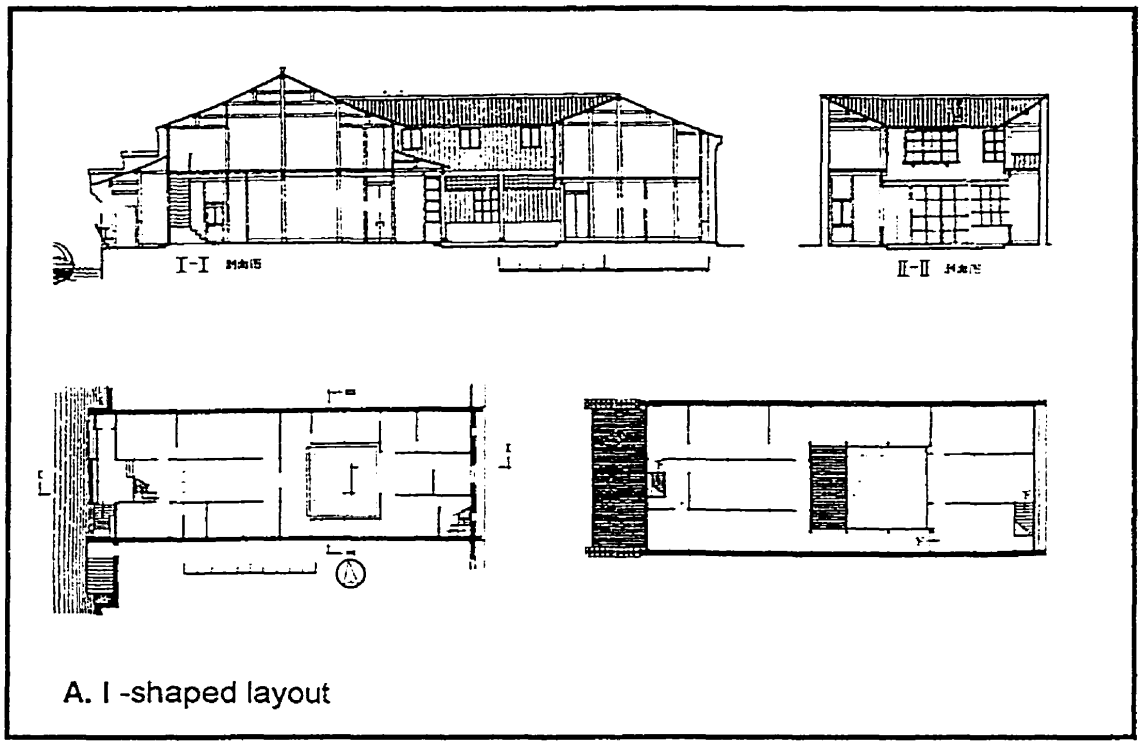
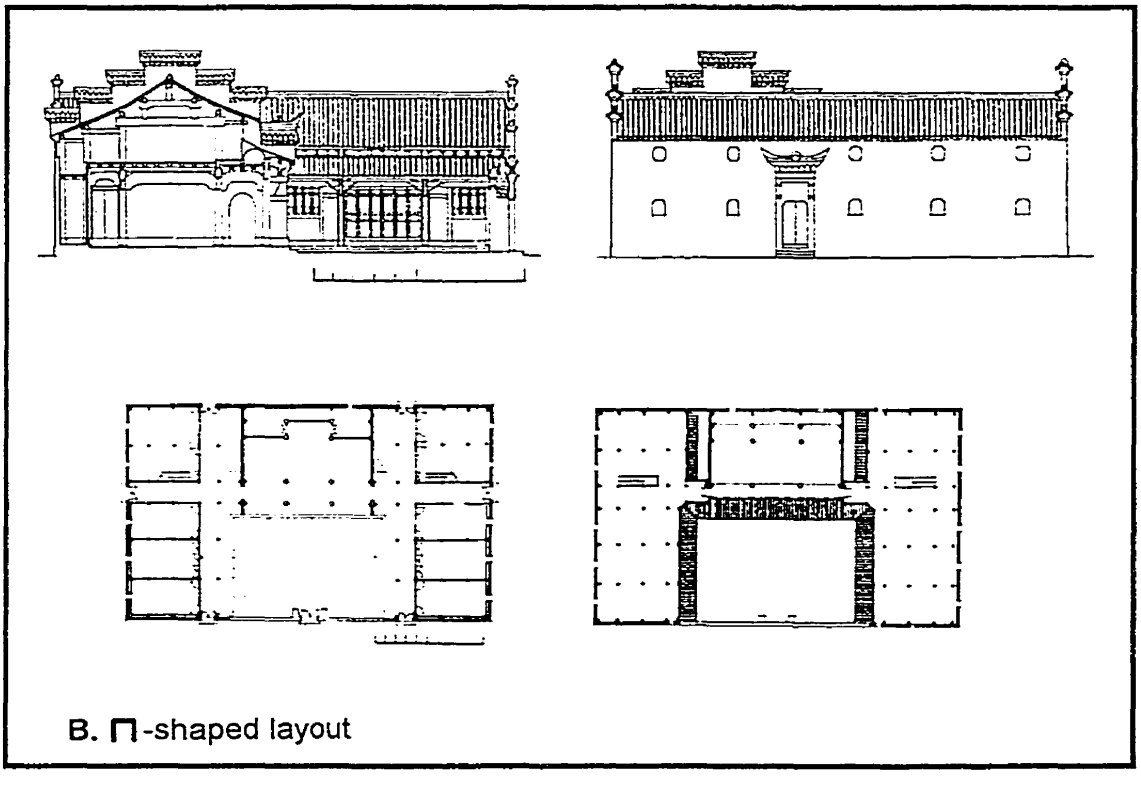


Figure 2 Scene in a small town in Zhejiang Province

Figure 3 Scene in Wenzhou: multi-story and mixed-use



A. I -shaped layout



B. Π-shaped layout

Figure 4 Typical layouts of Zhejiang vernacular housing

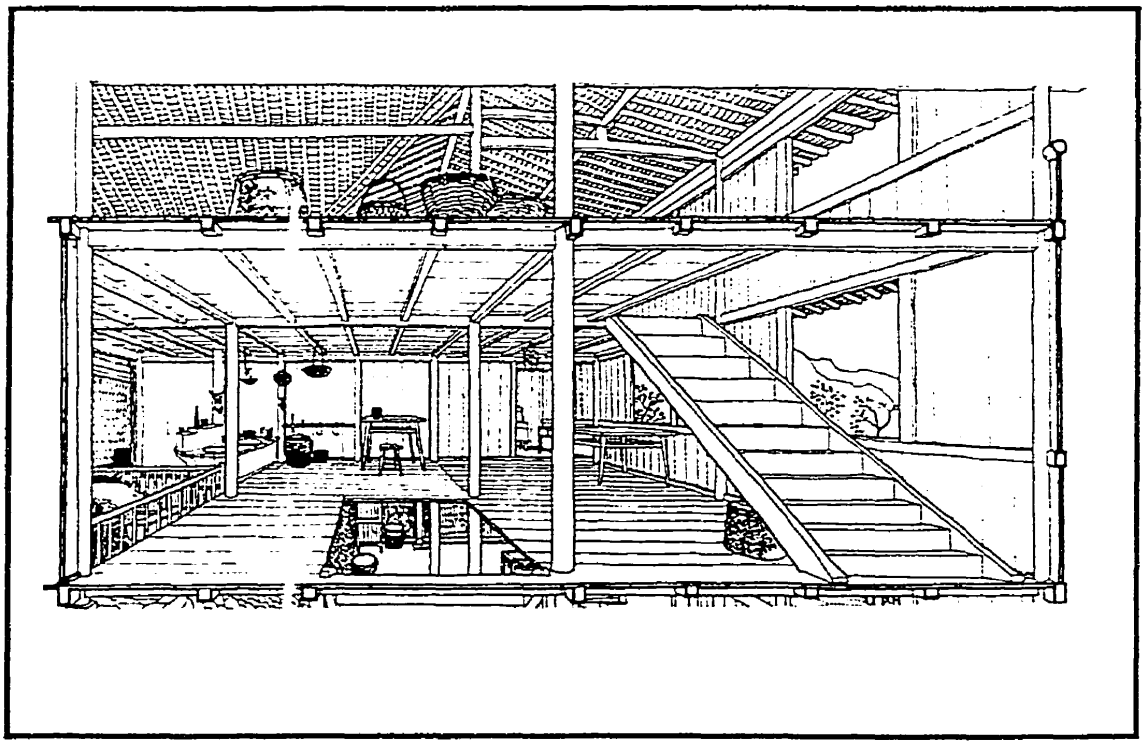


Figure 5 Exposed structural elements, casual use of space

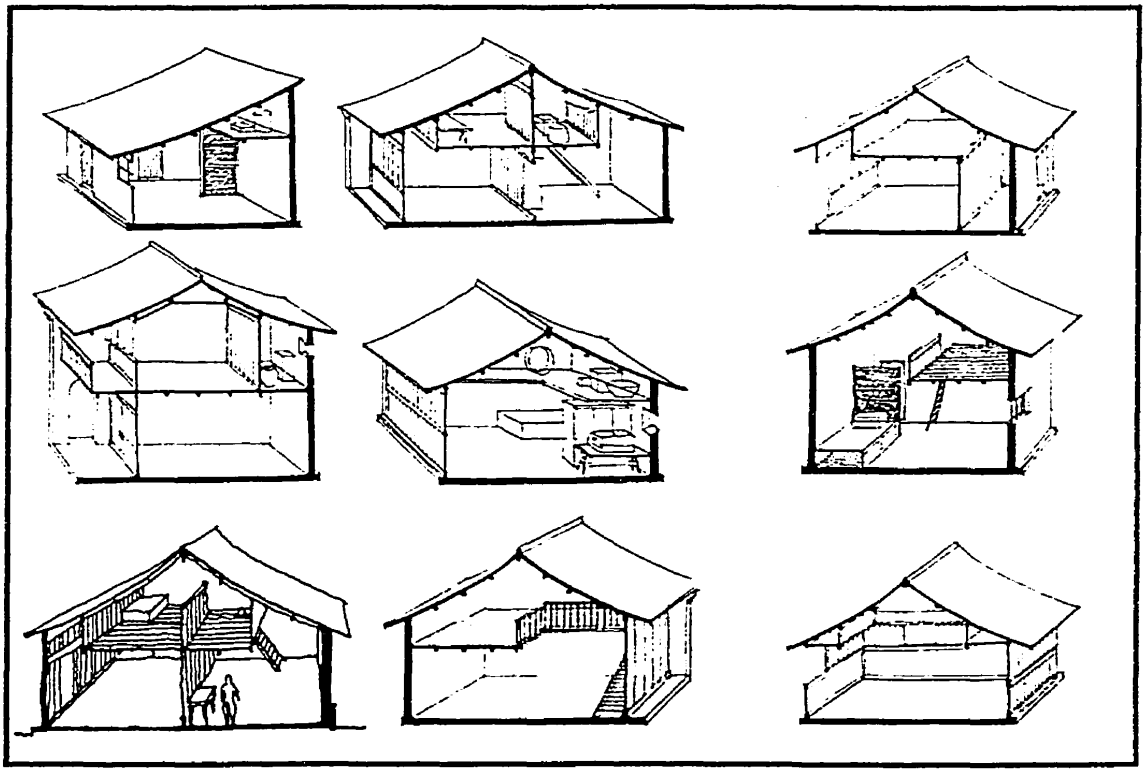


Figure 6 Various uses of loft space

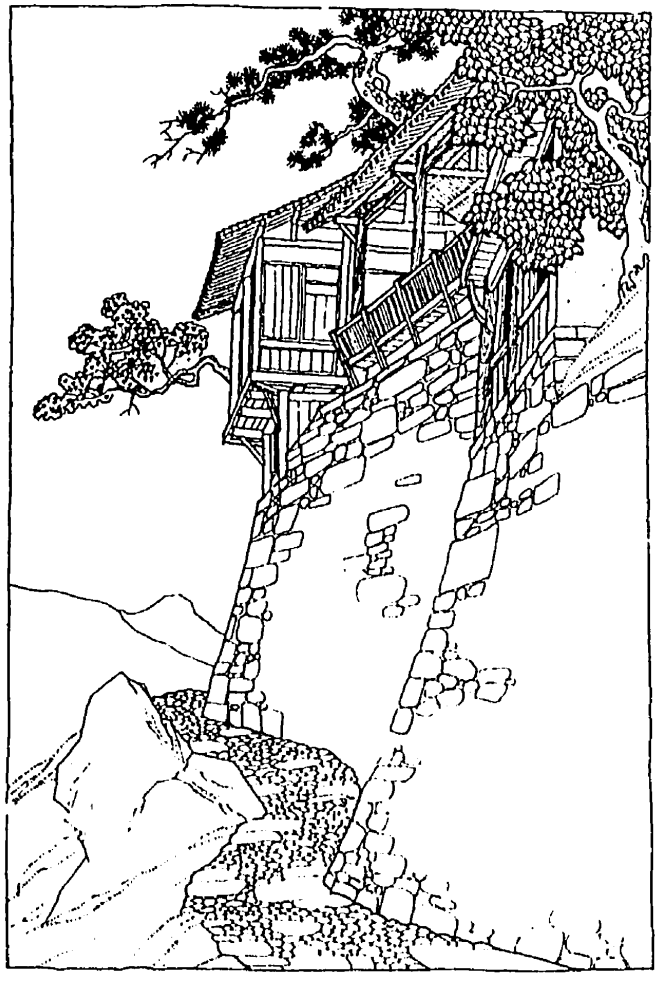


Figure 7 Example showing economical use of land

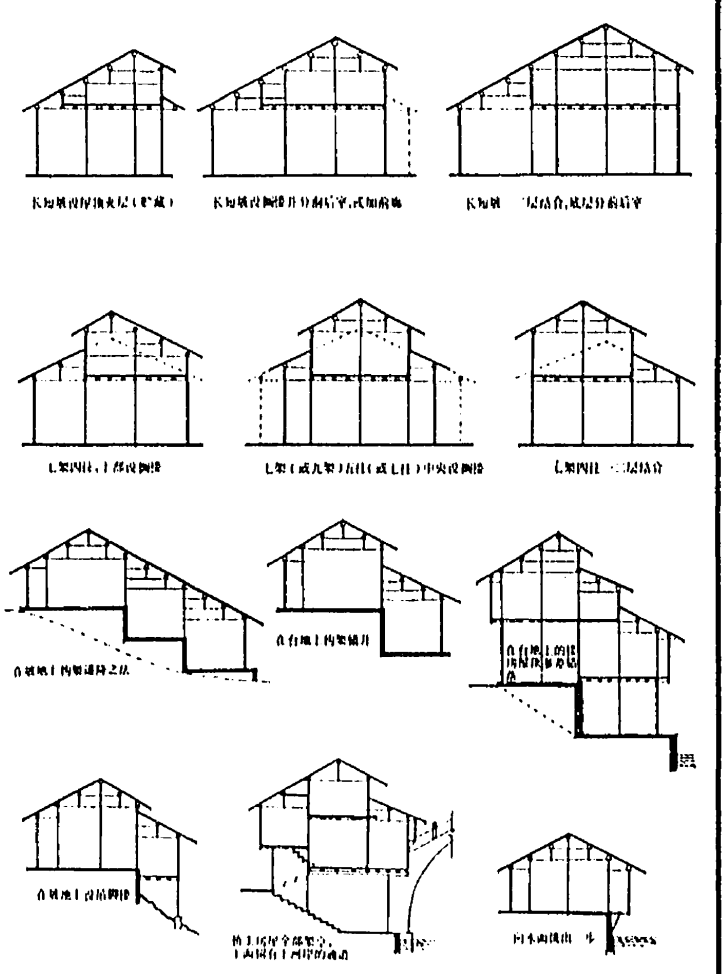


Figure 8 Flexible wooden structure

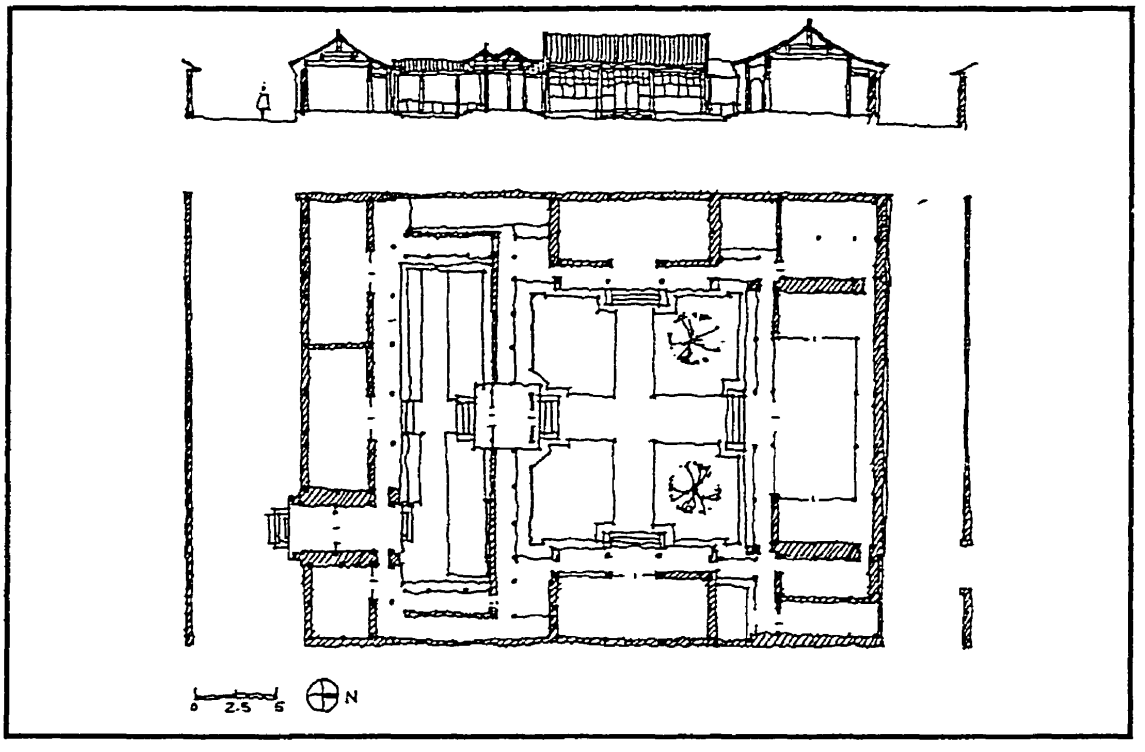


Figure 9 Typical Beijing courtyard house

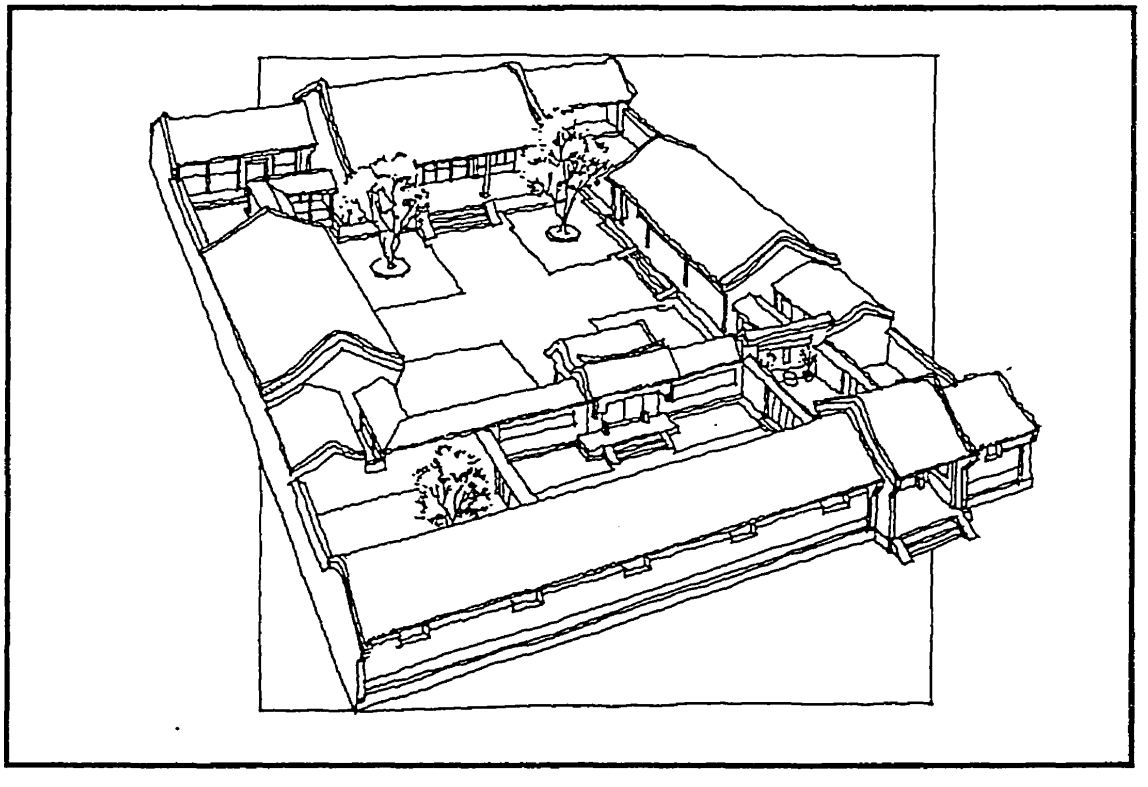


Figure 10 Bird's eye view

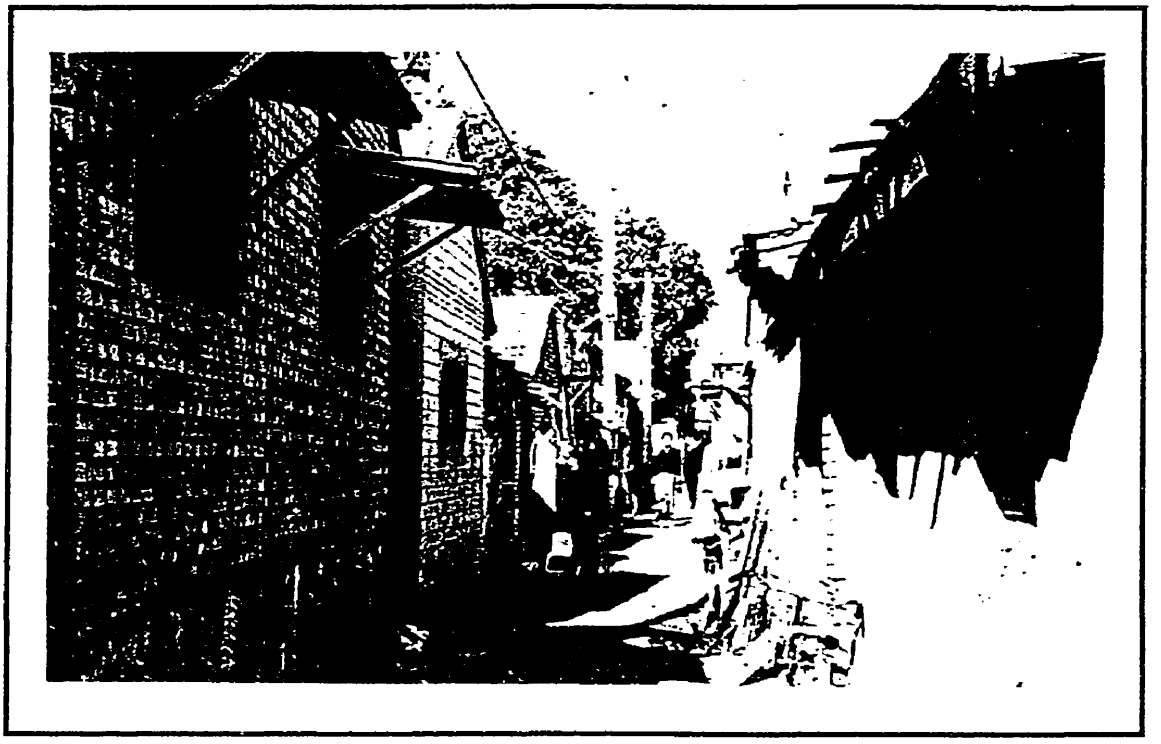


Figure 11 Scene in a *huton*

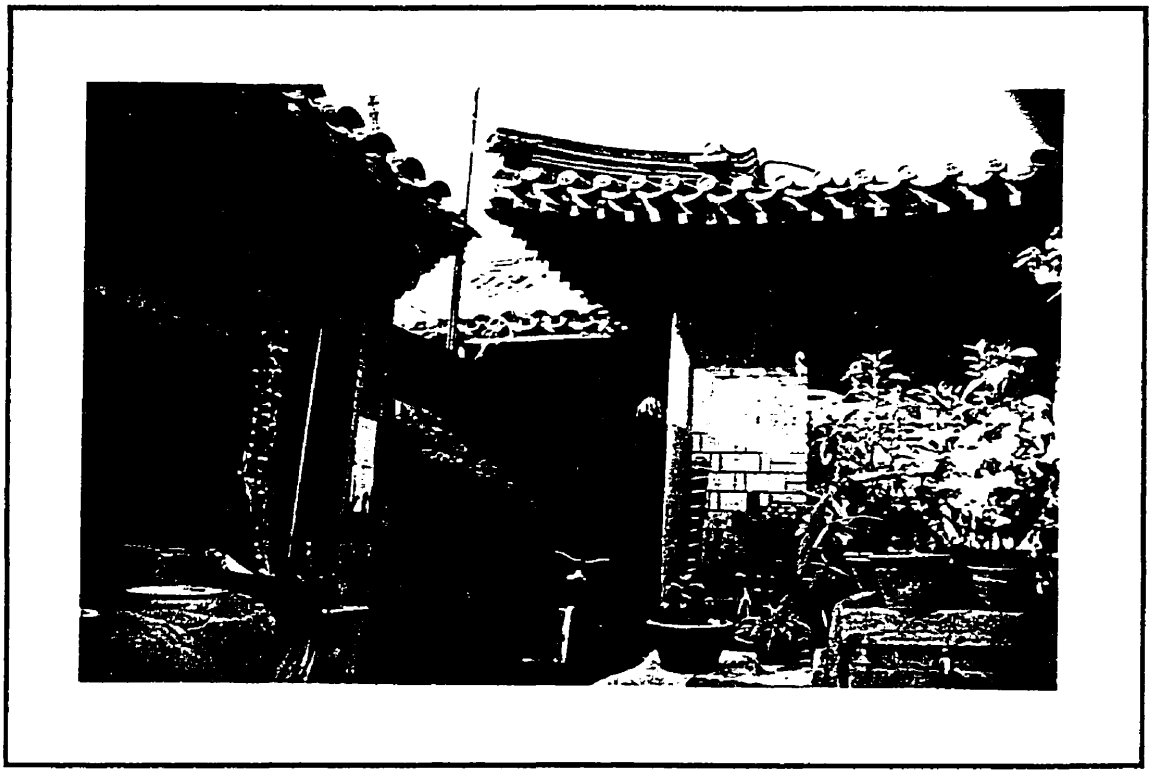


Figure 12 Scene in a courtyard

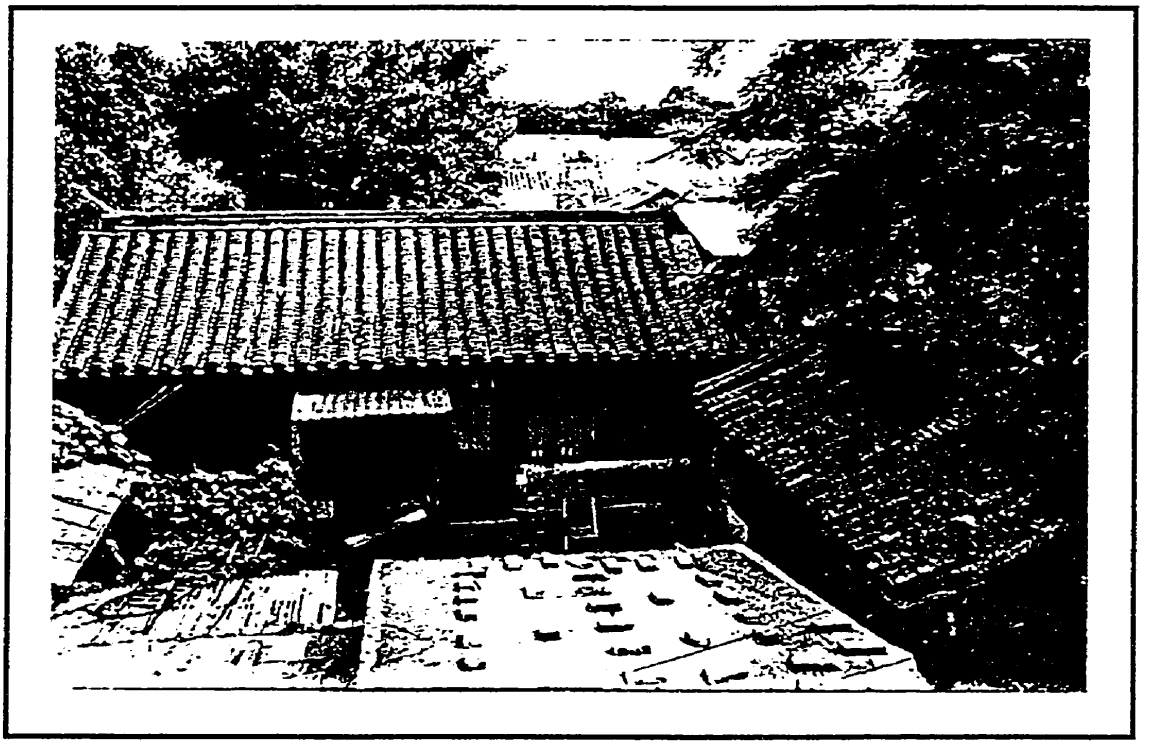


Figure 13 Existing courtyard house in Beijing:
Full of horizontal additions but remains single story

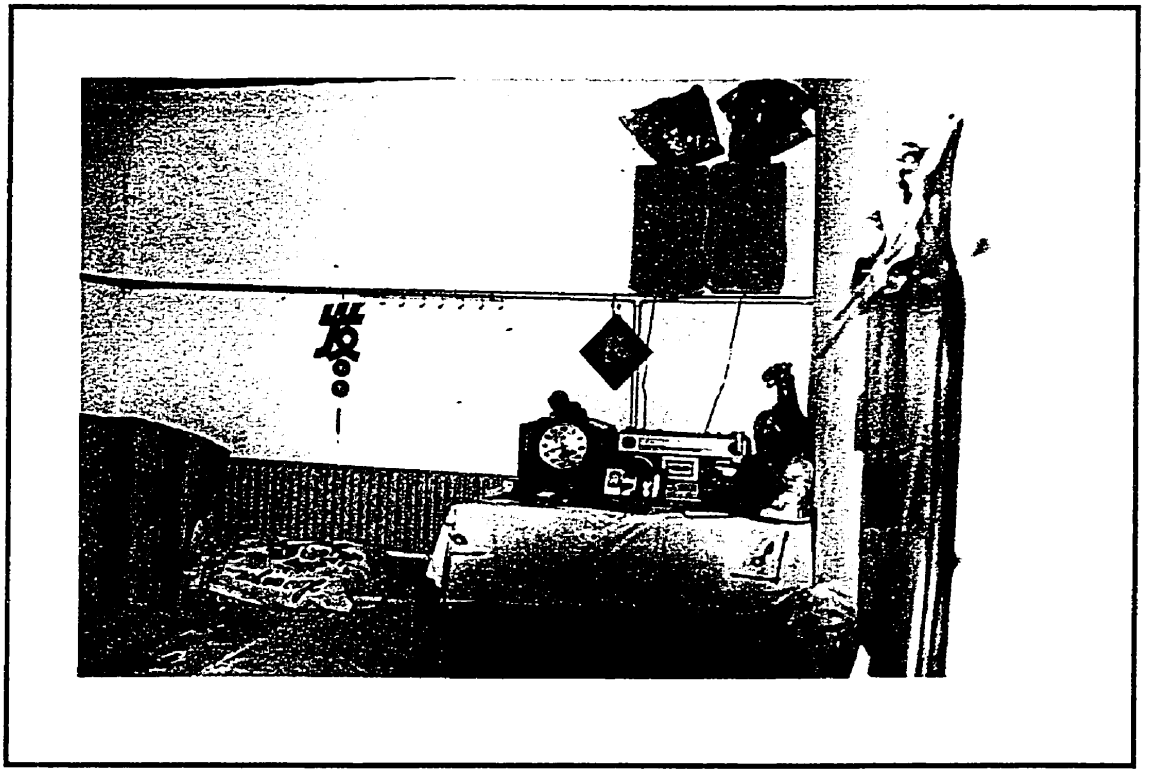


Figure 14 Interior scene

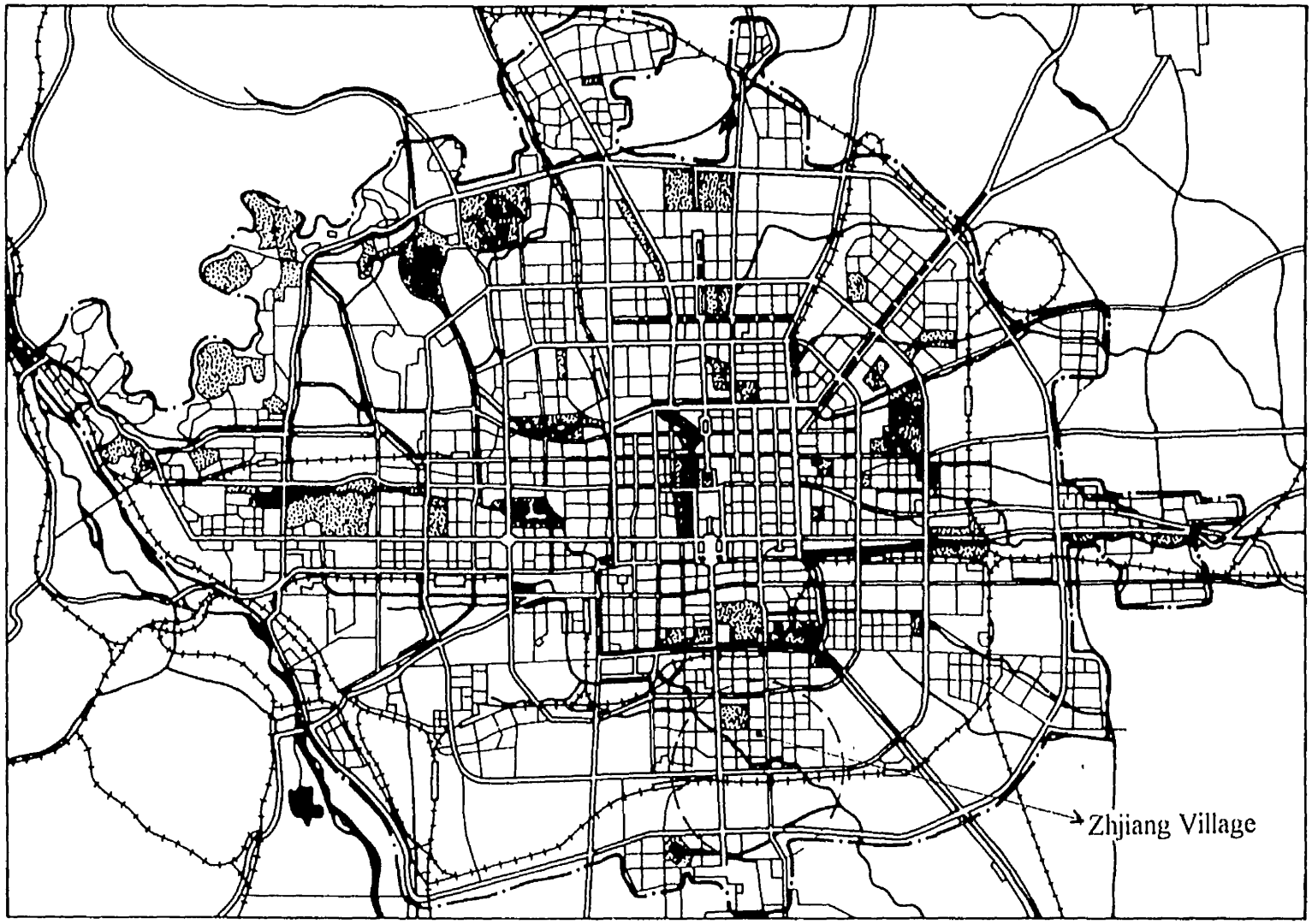


Figure 16 Master plan of Beijing (1982 version)

Figure 17 Scene in Xinjiang Village

Figure 18 Scene in Zhejiang Village

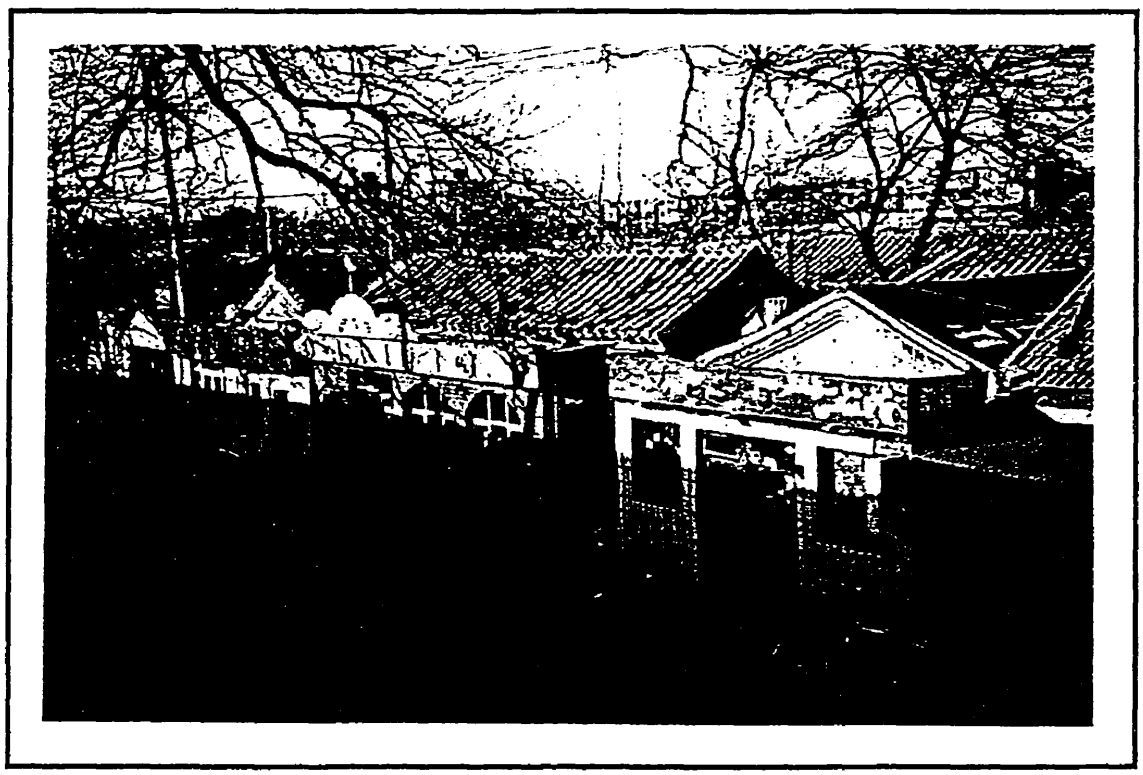


Figure 19 Scene in Xinjiang Village

Figure 20 Scene in Anhui Village

Figure 21 Modern multi-story apartment buildings in Beijing

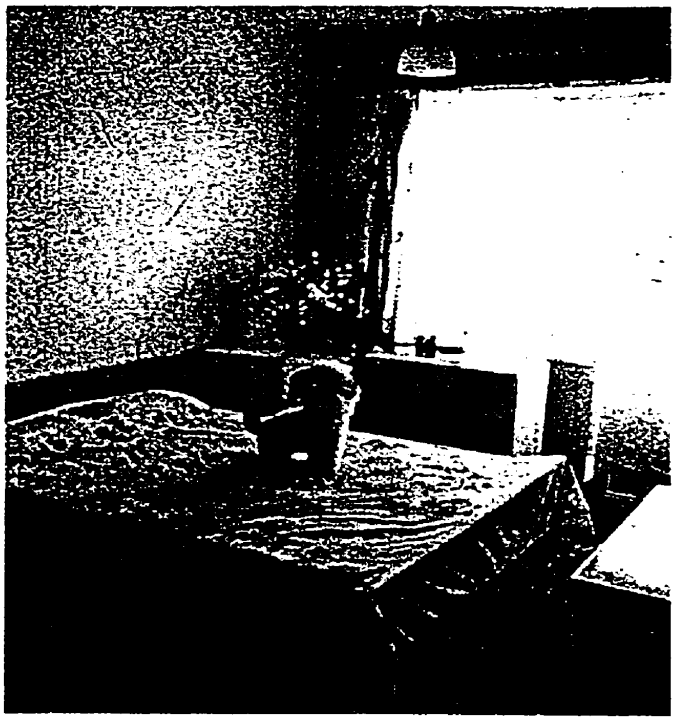


Figure 22 Interior scene of a modern apartment

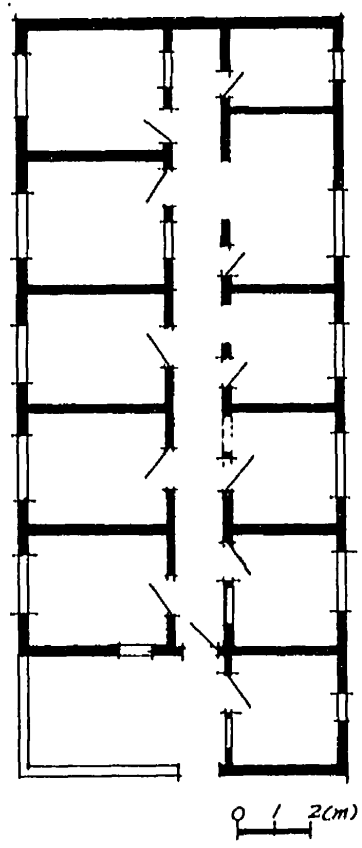


Figure 23 Layout of migrant houses in Anhui Village

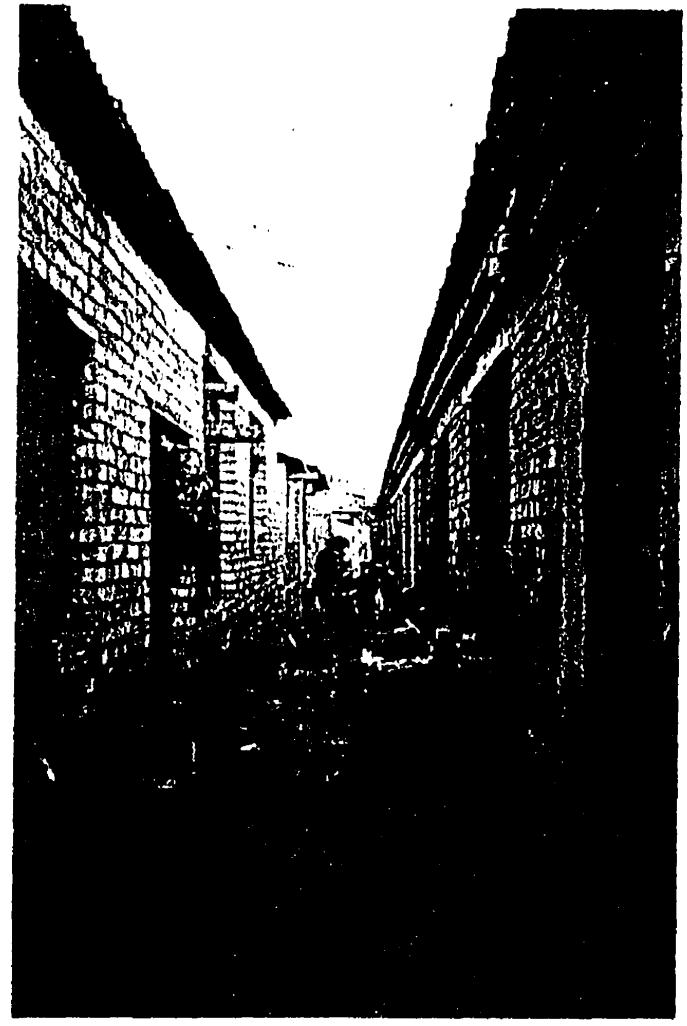


Figure 24 Inner scene

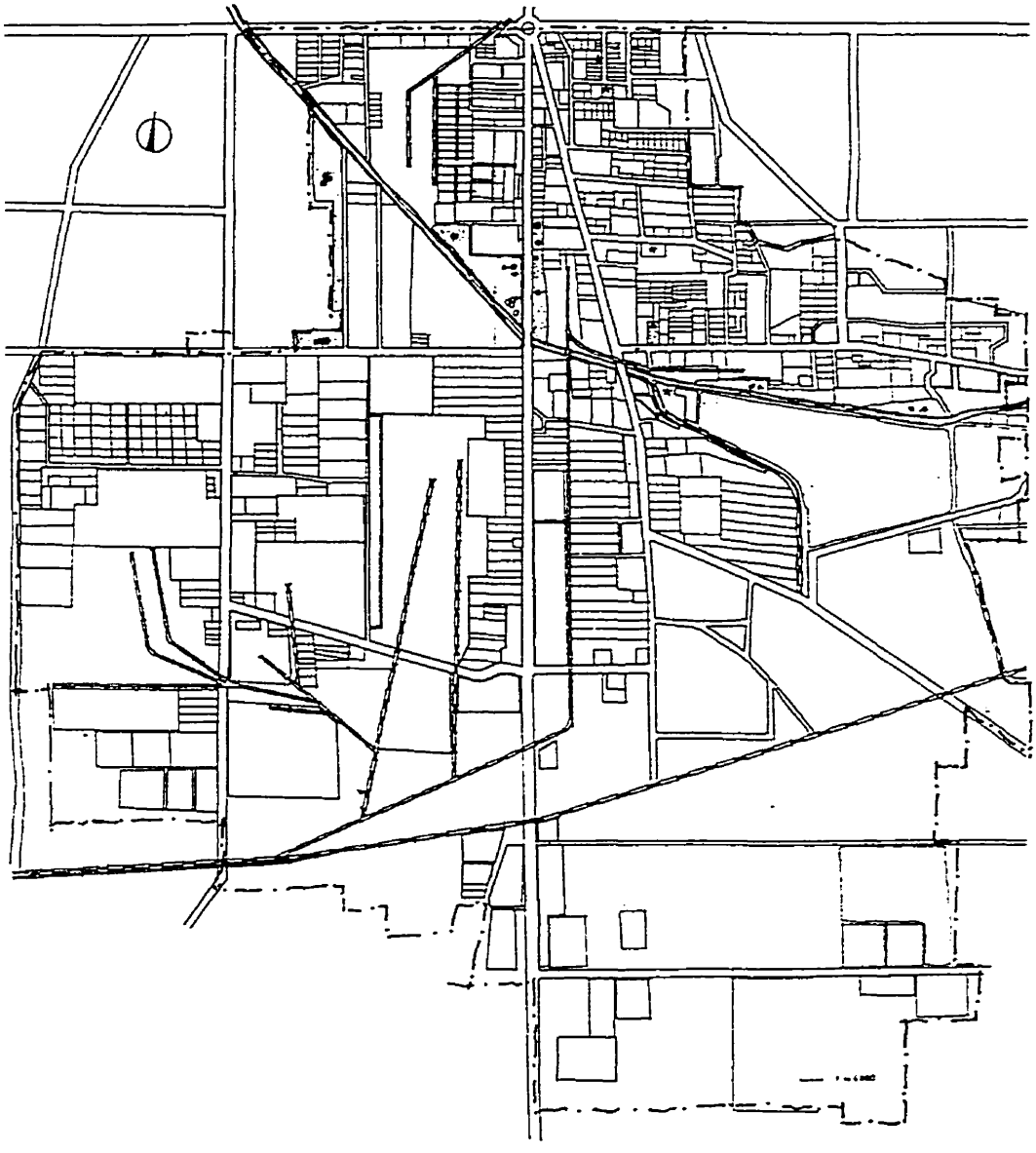


Figure 25 Map of Dahongmen area
(Dotted line marks approximate boundary of Zhejiang Village)

Figure 26 Aerial photo showing territorial expanse of Zhejiangcun

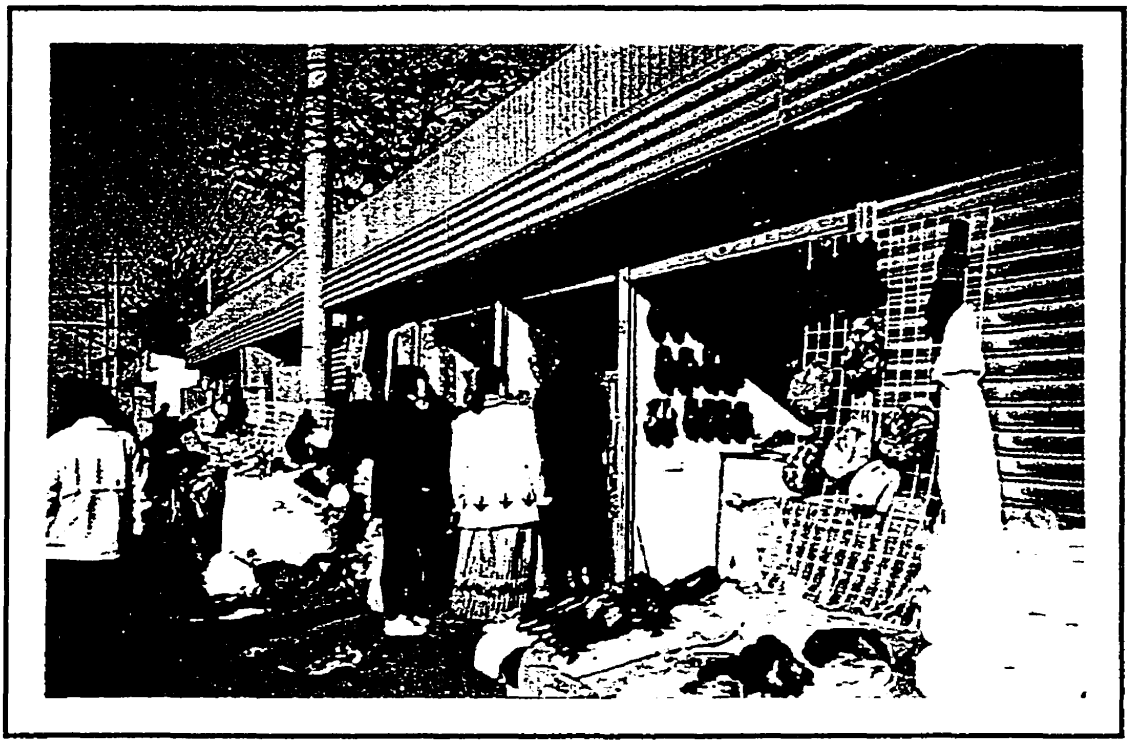


Figure 27 Scene along Dahongmen street

Figure 28 Red pedicabs: cheap and convenient

Figure 29 Scene in Macun shopping street (I)

Figure 30 Scene in Macun shopping street (II)

Figure 31 Scene in Macun food market (I)

Figure 32 Scene in Macun food market (II)

Figure 33 Chinese characters "*Chai*" painted on a migrant compound gate

Figure 34 Demolition in progress

Figure 35 Scene of No. 2 Jilei courtyard after demolition

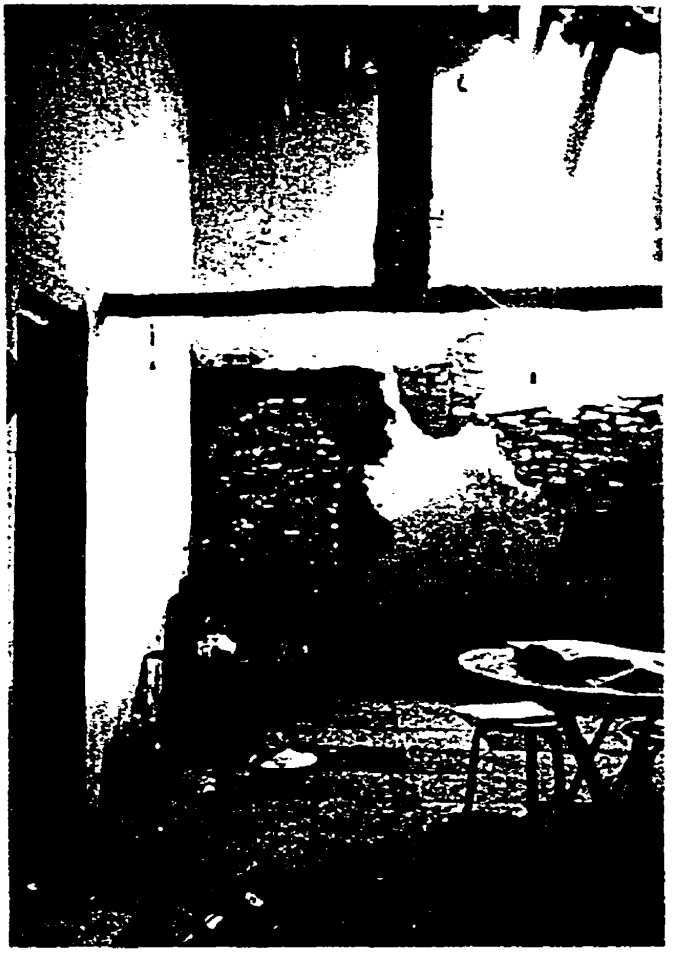


Figure 36 Life goes on: migrants still live in half-demolished house

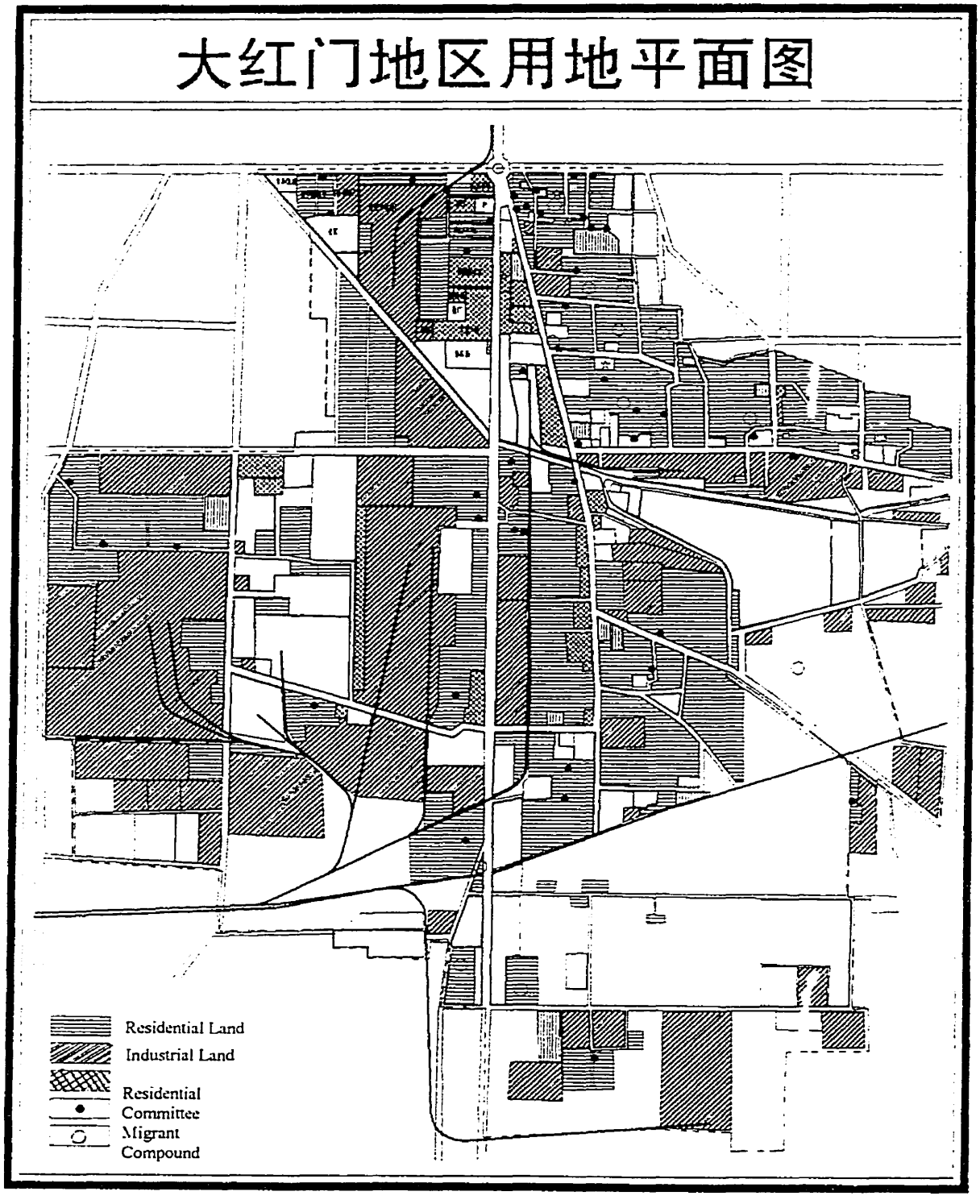


Figure 37 Land distribution of Dahongmen area

Figure 38 Scene from local Beijing residential neighborhood

Figure 39 Scene from Zhejiang Village

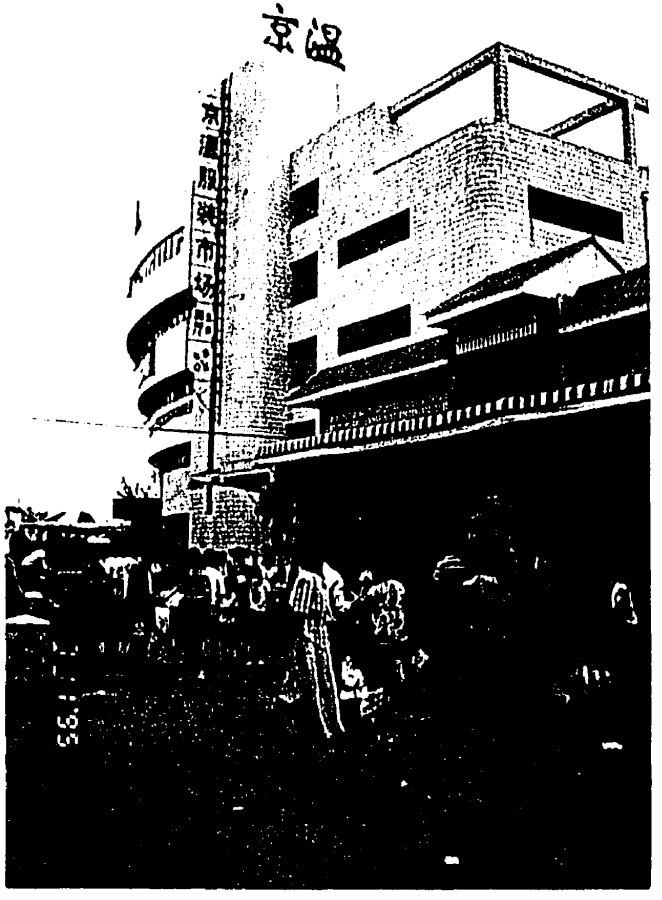


Figure 40 Market-oriented business (I):
Wholesale market in Zhejiang Village

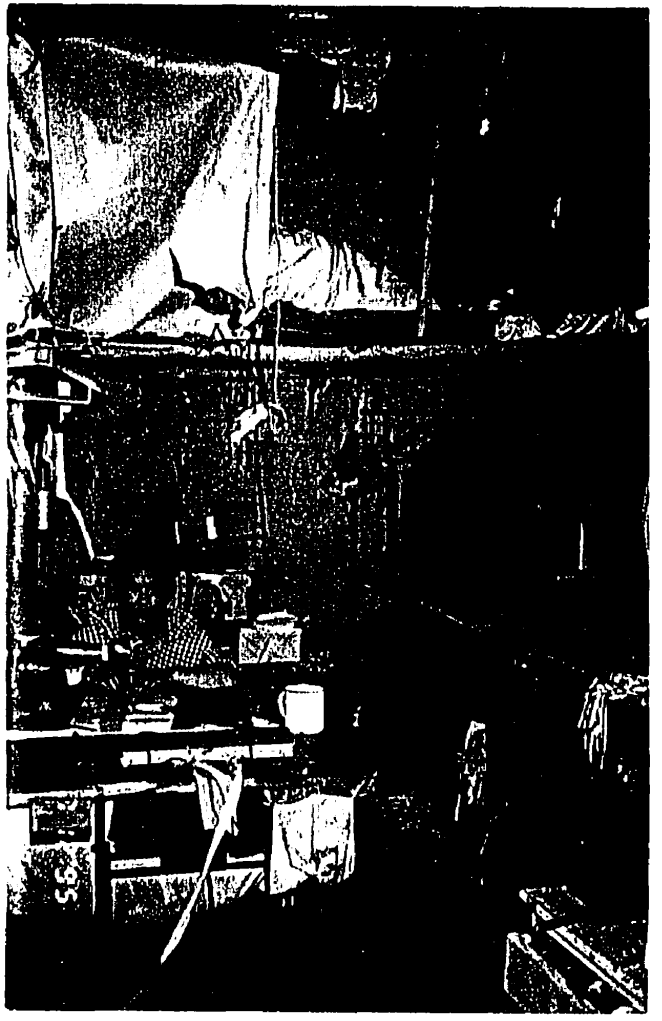


Figure 41 Market-oriented business (II):
Clothing processing workshop

Figure 42 Community-oriented business (I): Street vendors

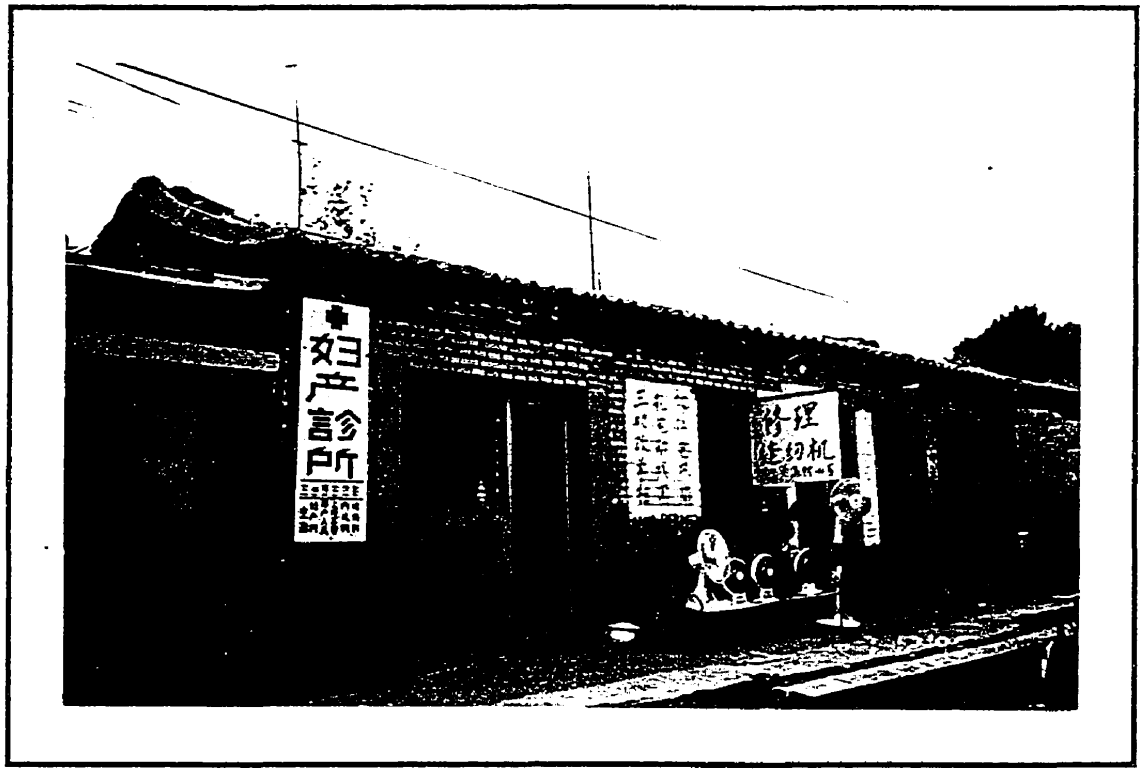


Figure 43 Community-oriented business (II): Clinic

Figure 44 Entrance to local courtyard house

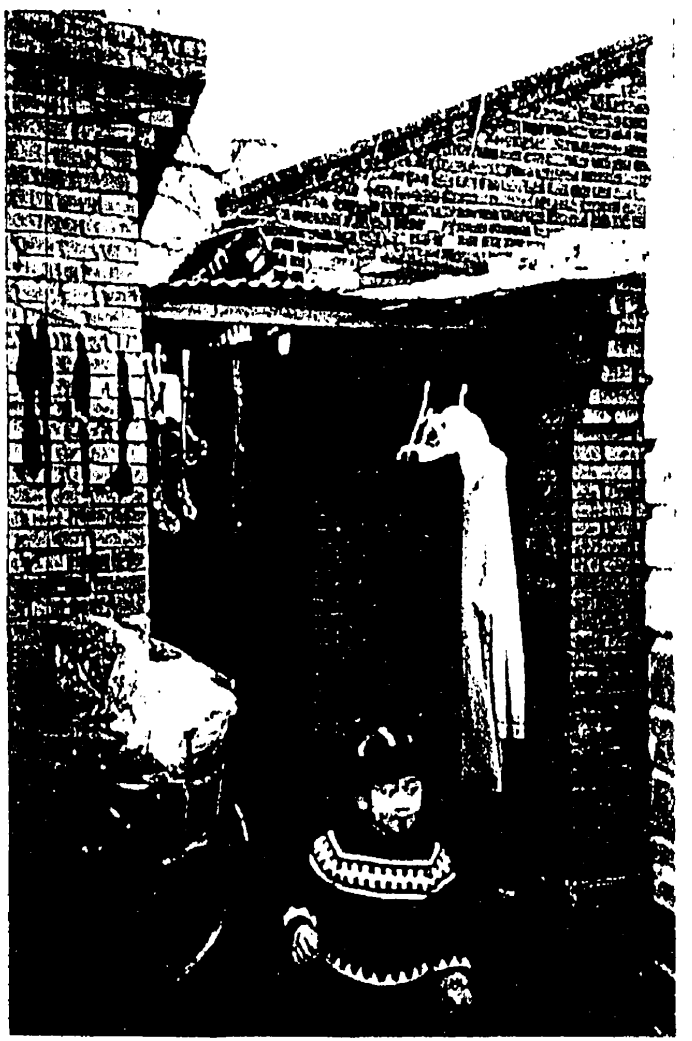


Figure 45 Rental rooms in local courtyard

Figure 46 Entrance of Macun eastern migrant compound

Figure 47 Inner scene of No. 2 Jilei courtyard

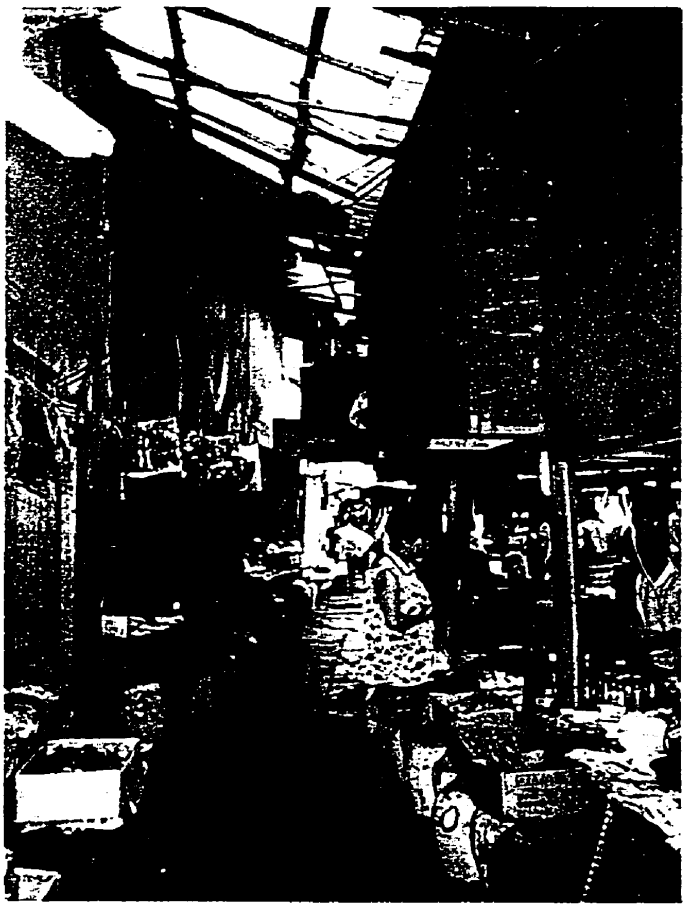


Figure 48 Self-built migrant houses in Macun

Figure 49 Macun shopping street: narrow and crowded

Figure 50 Allocation of limited water supply

Figure 51 Insufficient sewage system:
dirty water channel running through street

Figure 52 Sanitary problem: garbage everywhere

Figure 53 Dangerous connection of electricity

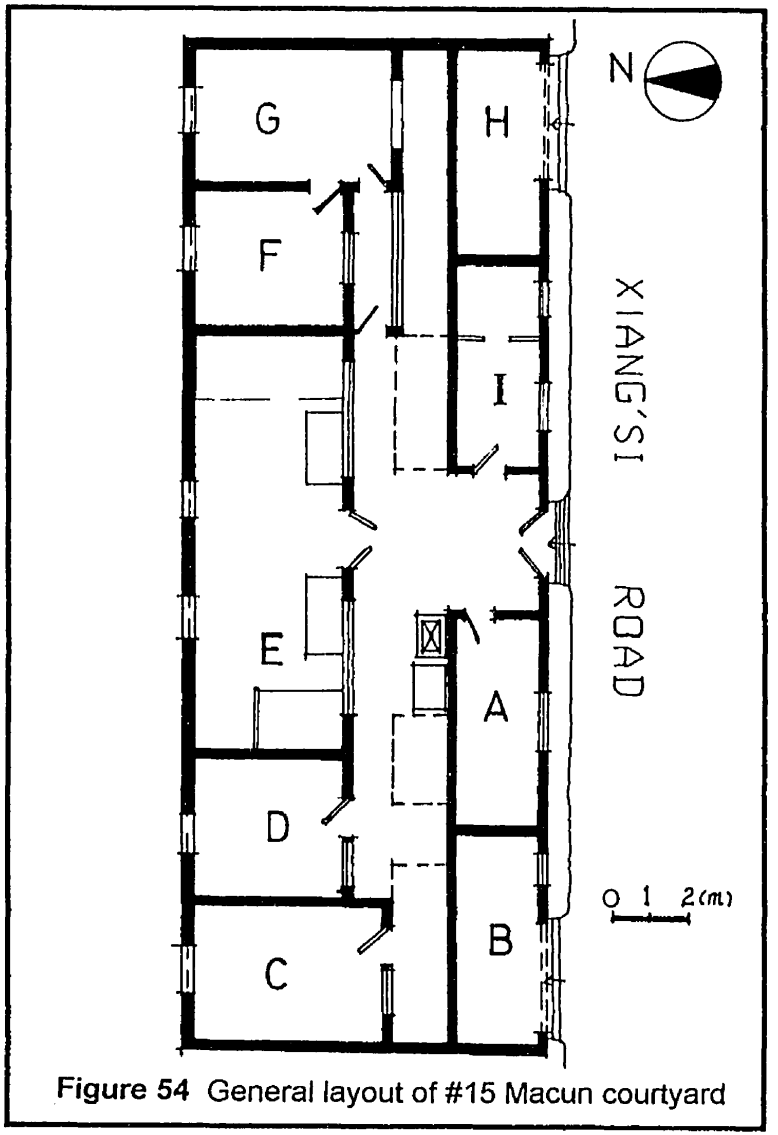


Figure 54 General layout of #15 Macun courtyard

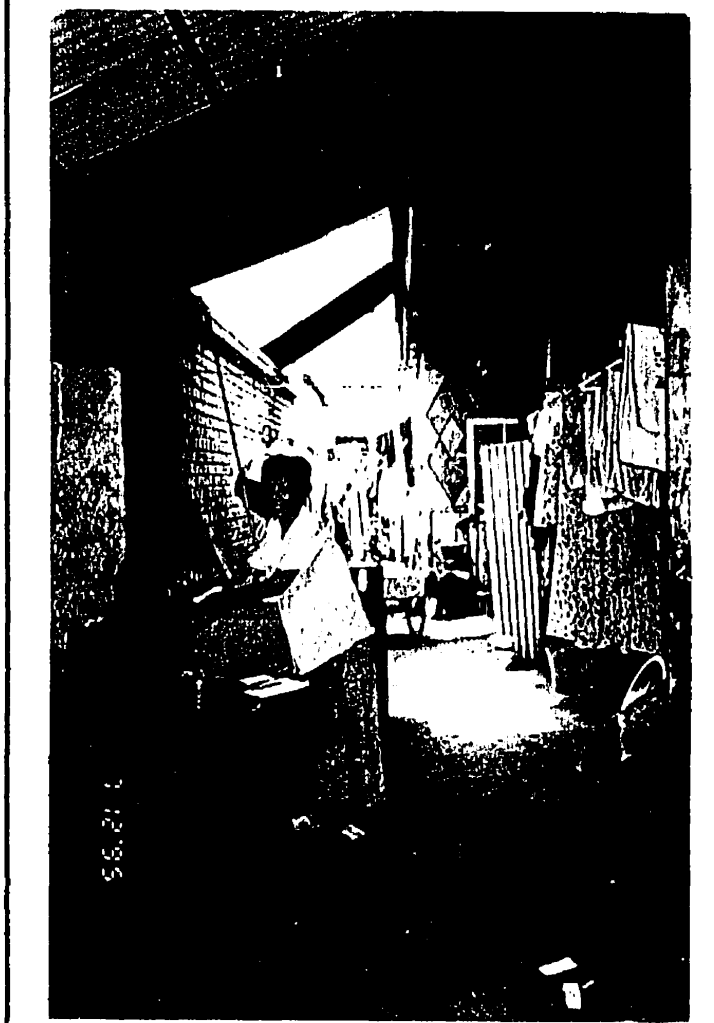
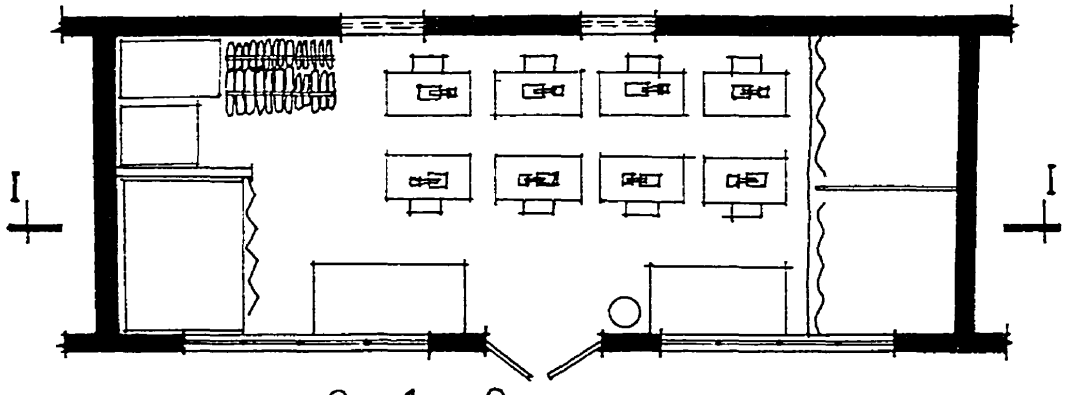
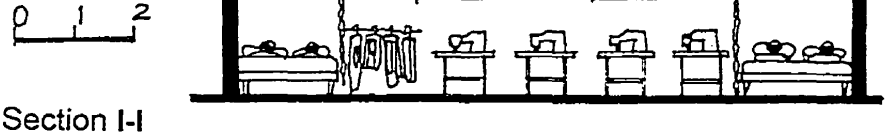


Figure 55 Inner scene

Figure 56 Sample 1
Room E of # 15 Macun: large-sized clothing processing workshop



A. Floor plan



B. Section I-I

C. Interior scene

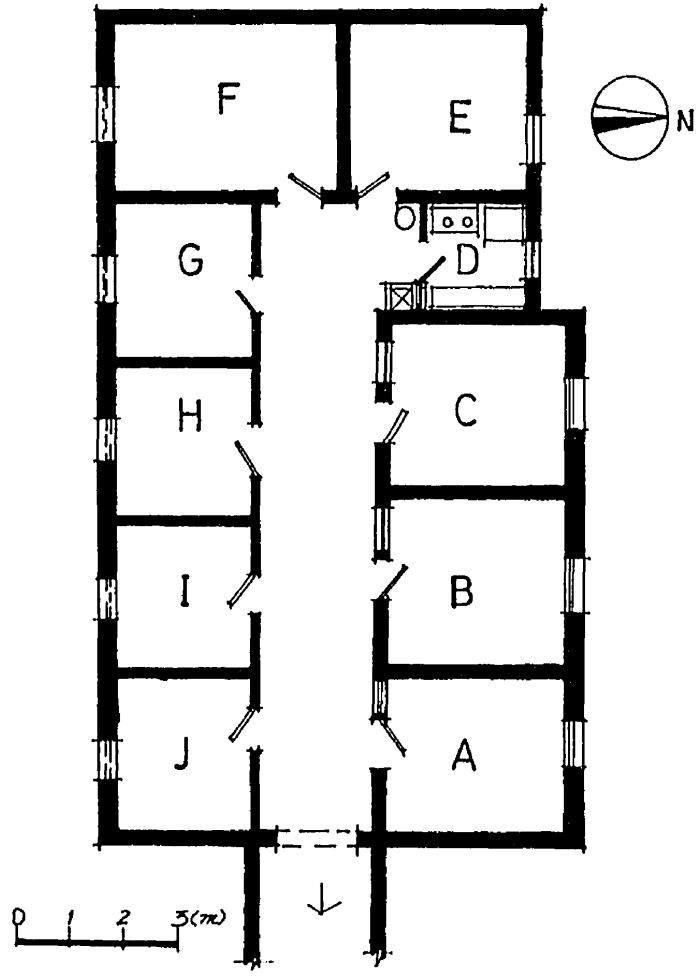
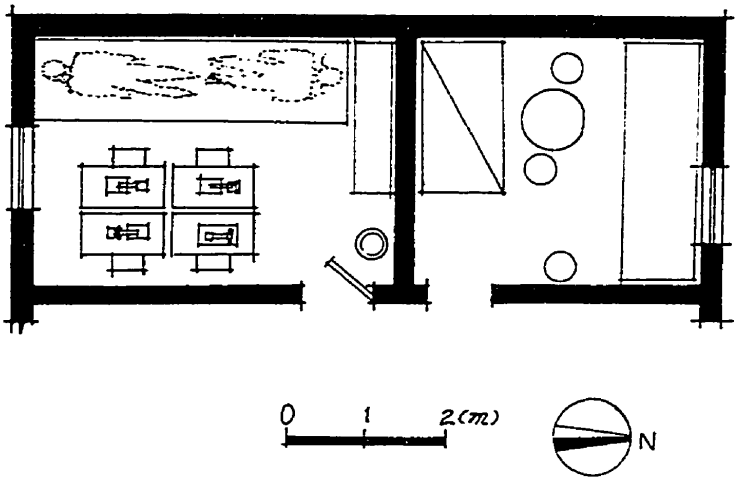


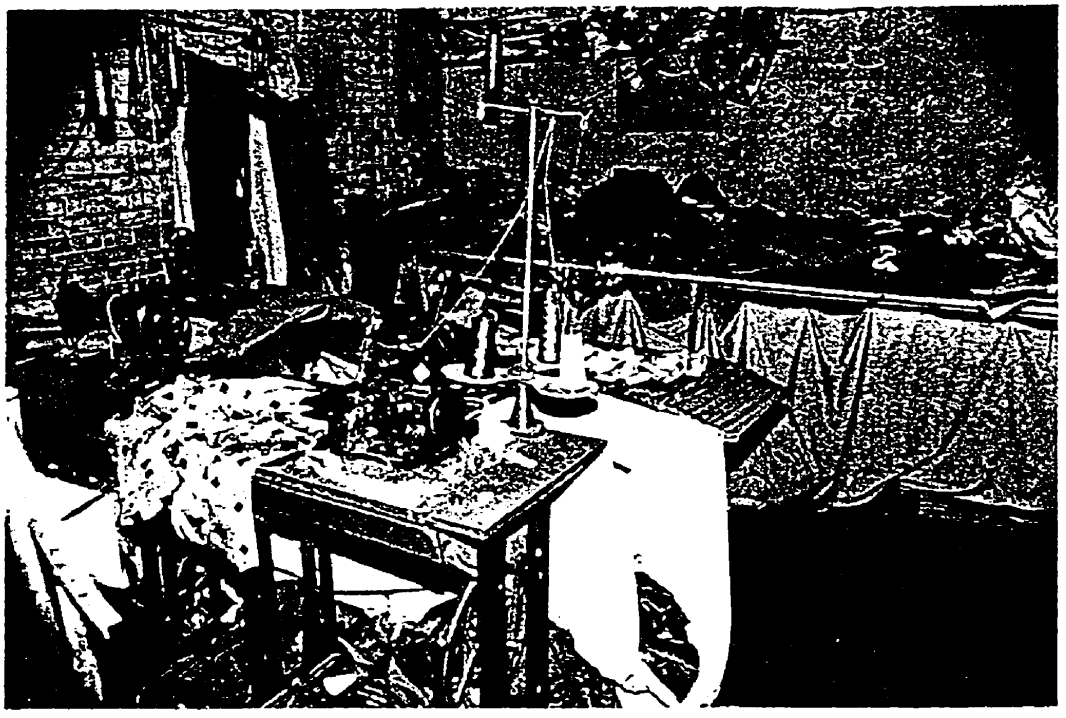
Figure 57 General layout of # 55 Macun courtyard

Figure 58 Inner scene

Figure 59 Sample 2: Room E & F:
medium-sized clothing processing workshop



A. Floor plan



B. Interior scene of room F

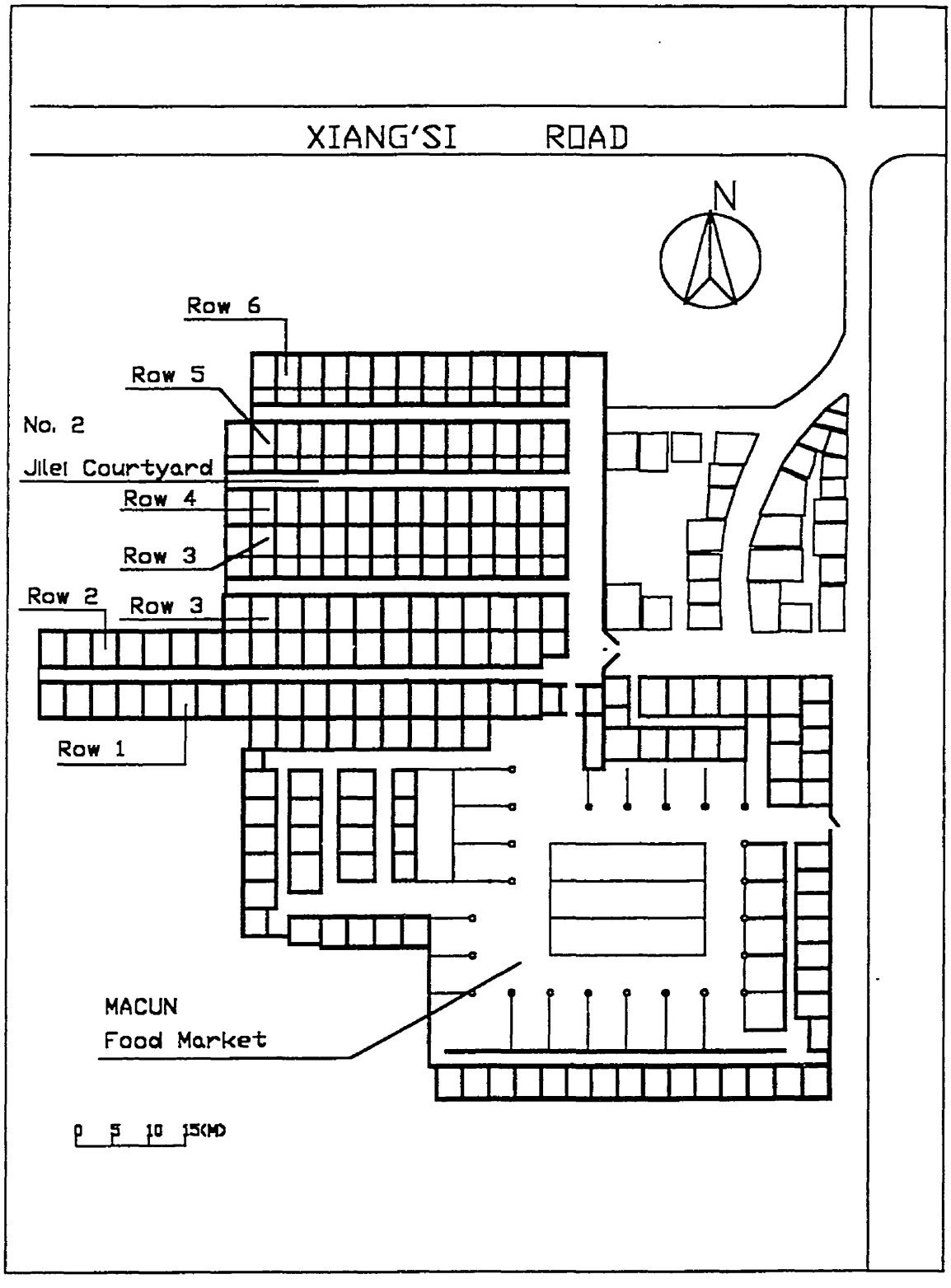


Figure 60 General layout of No. 2 Jilei courtyard and Macun food market

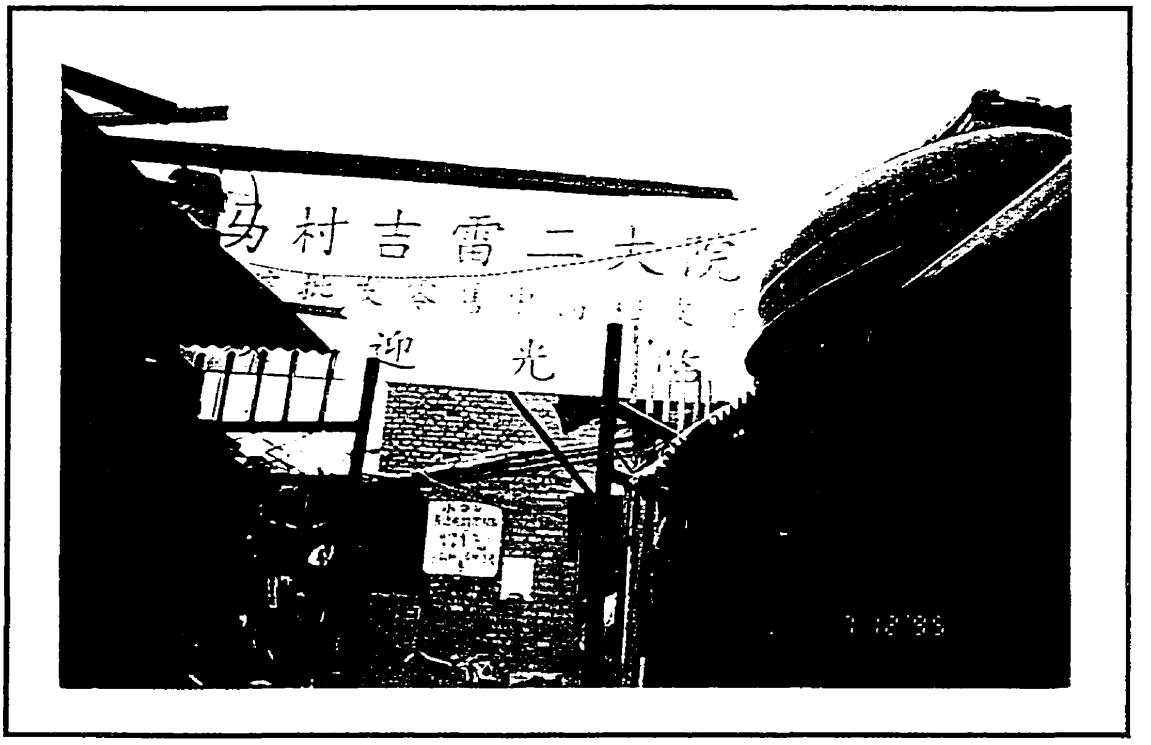


Figure 61 Main entrance to Jilei courtyard

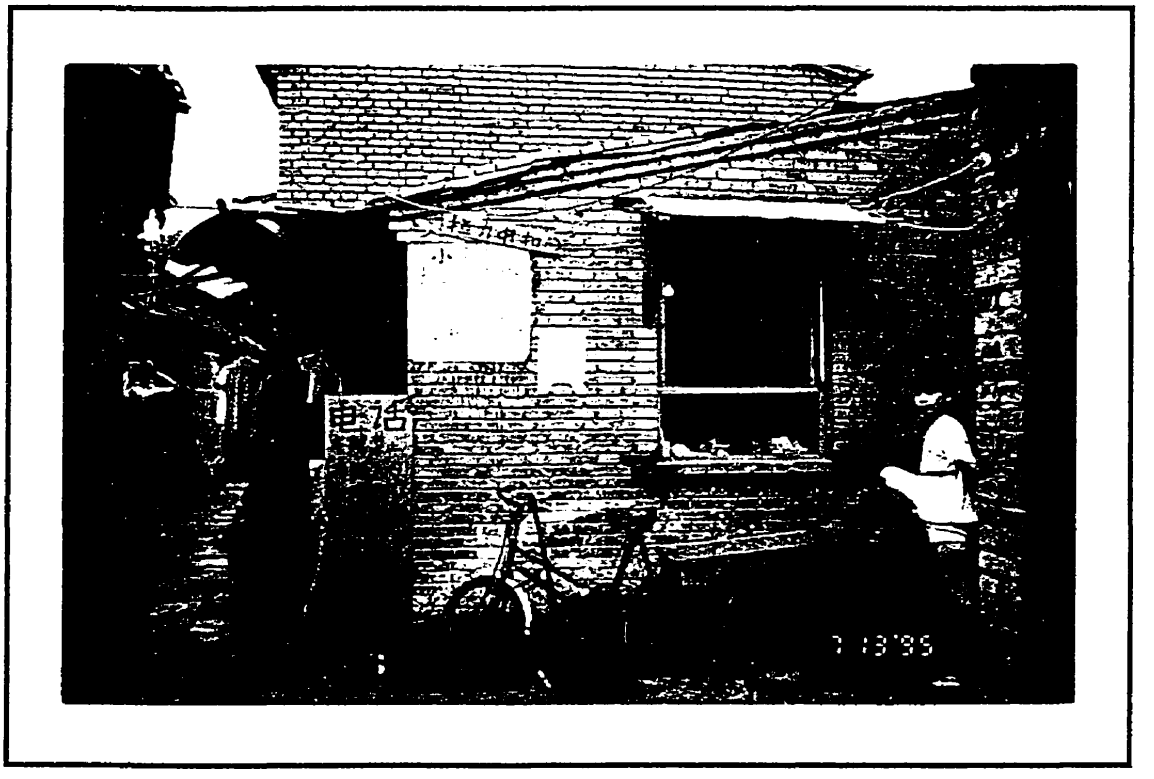


Figure 62 Administration office at entrance of No. 2 Jilei courtyard

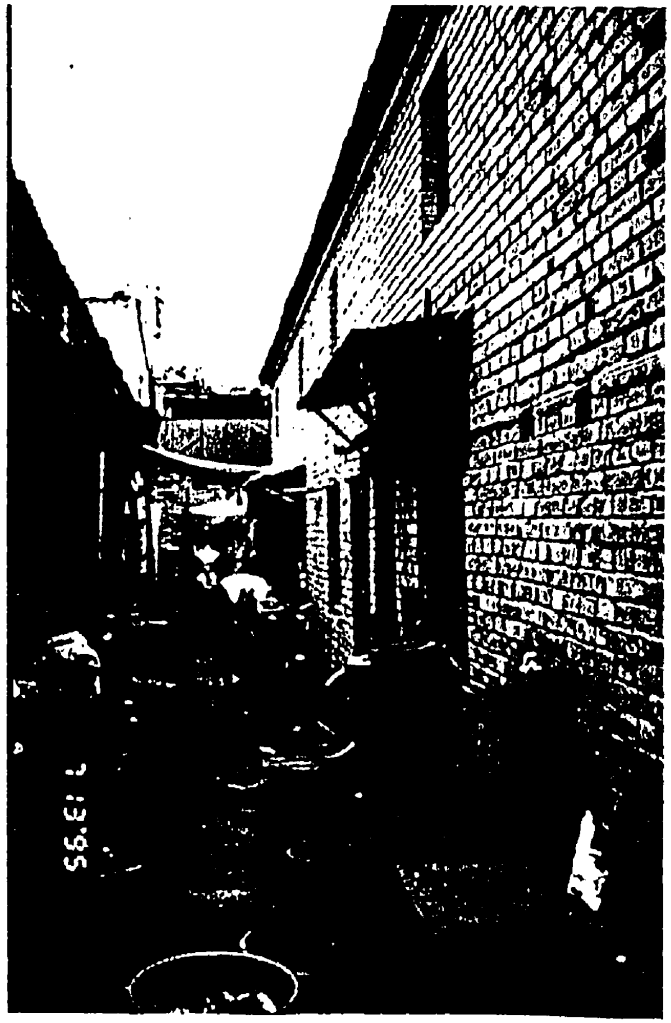


Figure 63 Inner scene of No. 2 Jilei courtyard (I)

Figure 64 Inner scene of No. 2 Jilei courtyard (II)

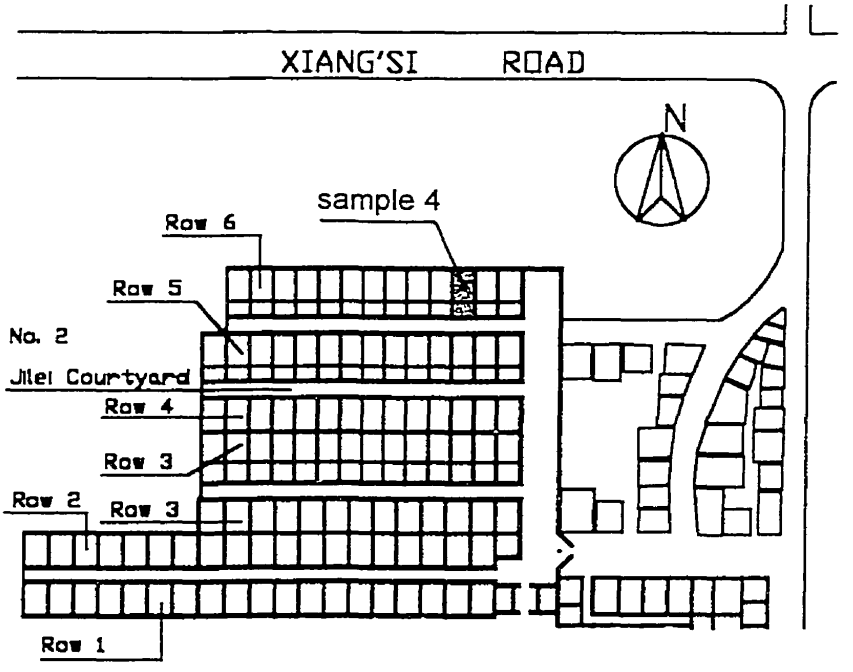
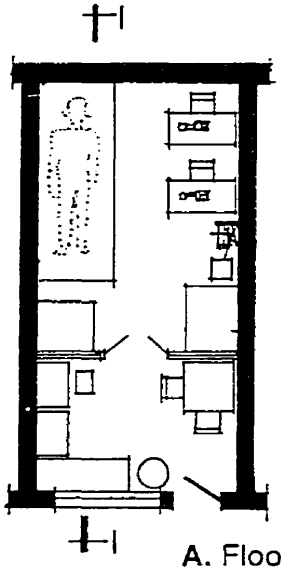
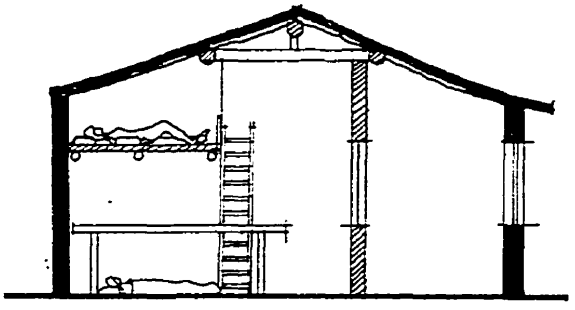


Figure 65 Location of sample 4: Row 6, room # 3

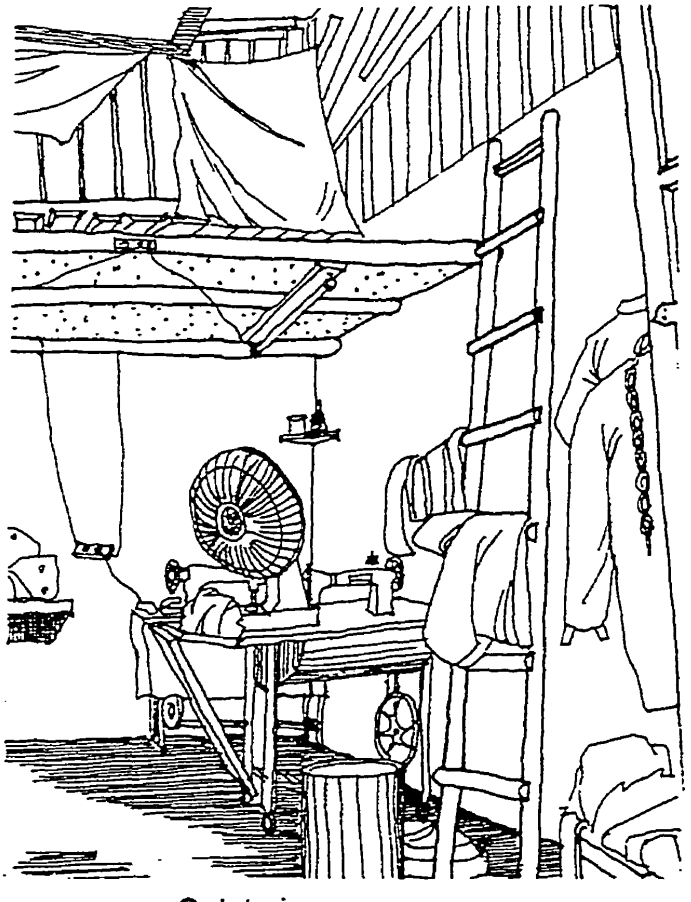
Figure 66 Sample 4(I): Small-sized clothing processing workshop



A. Floor plan



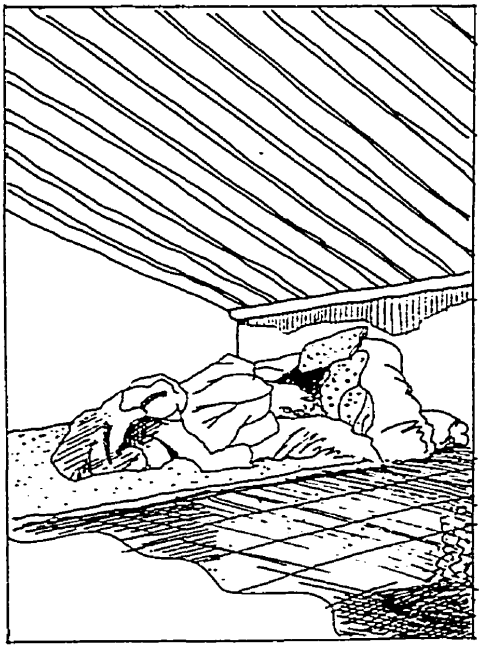
B. Section I-I



C. Interior scene

Figure 67 Sample 4(II)

D. Sleeping space under tailor's cutting-board



E. Use of loft space

Figure 68 Inner scene of Muxiyuan Light Industry Wholesale Market (I)

Figure 69 Inner scene of Muxiyuan Light Industry Wholesale Market (II)

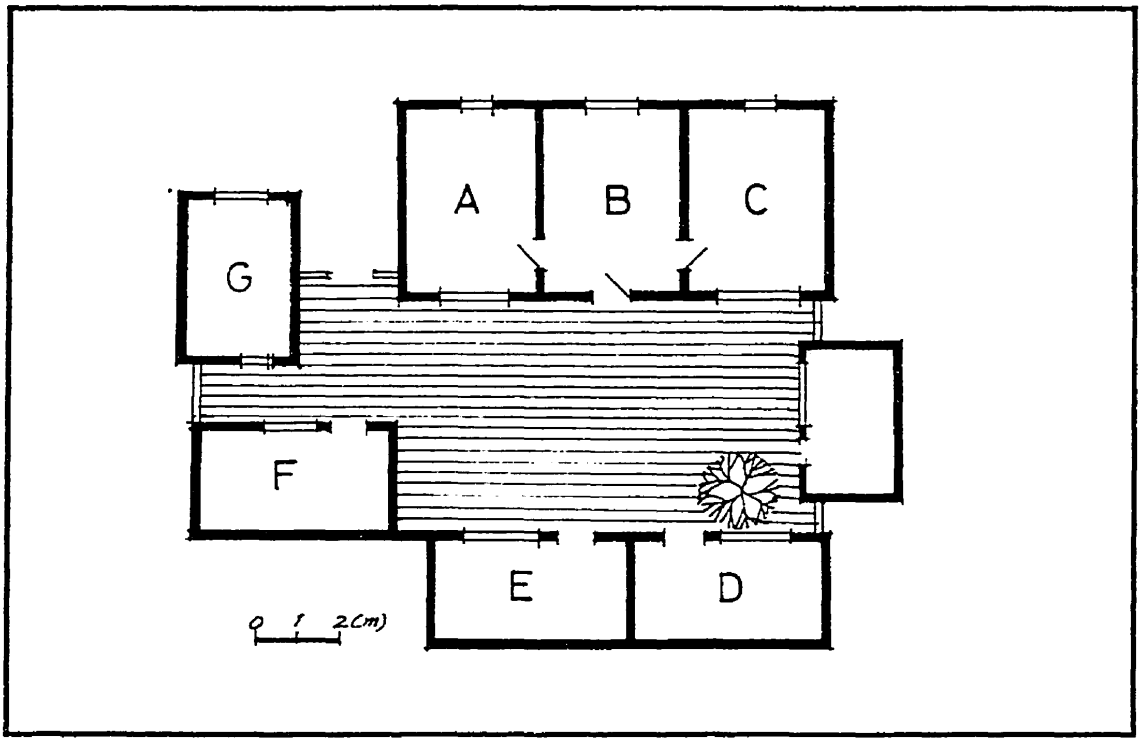


Figure 70 General layout of # 31 Macun courtyard

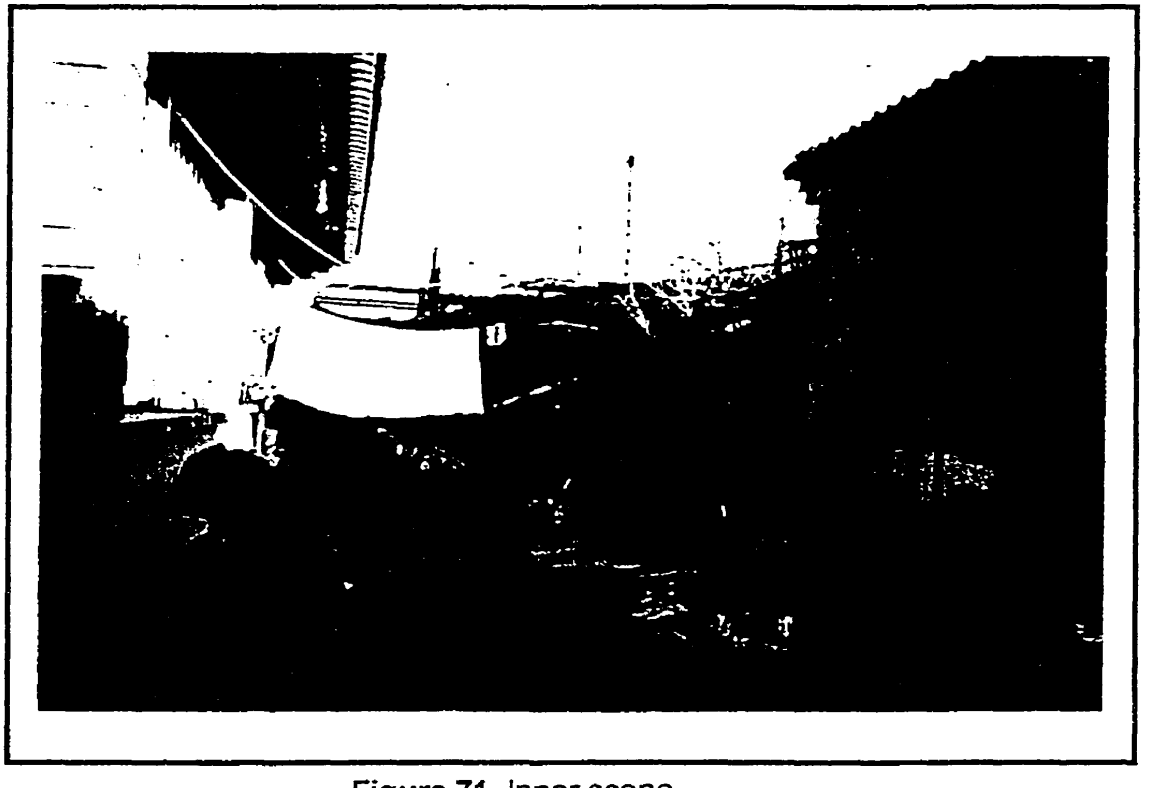
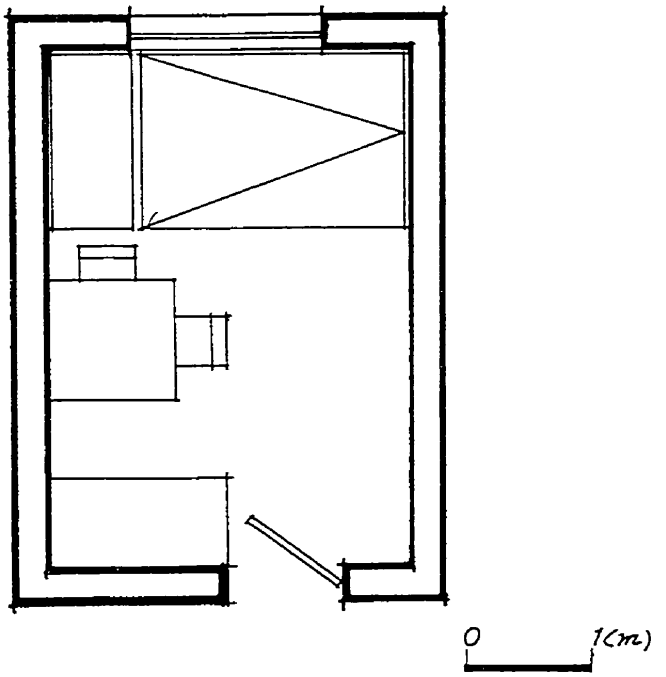
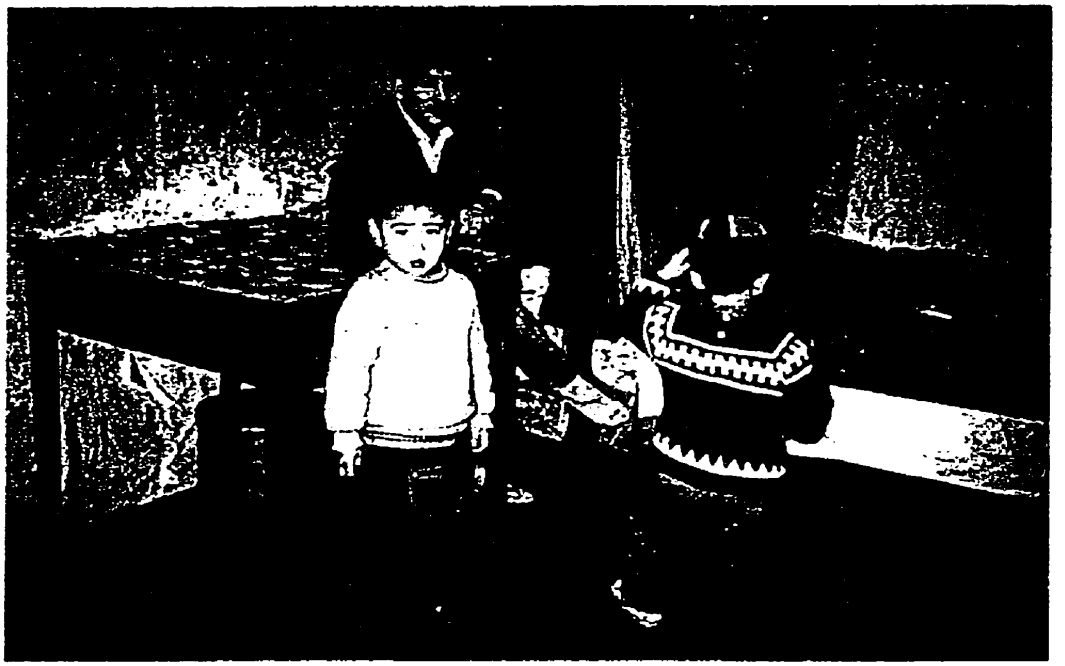


Figure 71 Inner scene

Figure 72 Sample 11: Room G in # 31 Macun courtyard



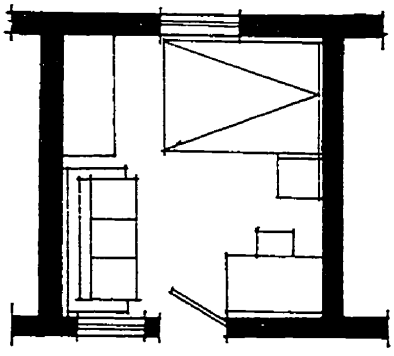
A. Floor plan



B. Interior scene

Figure 73 Sample 12: Room B in # 55 Macun courtyard

A. Wife and son in courtyard



B. Floor plan

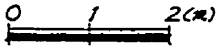
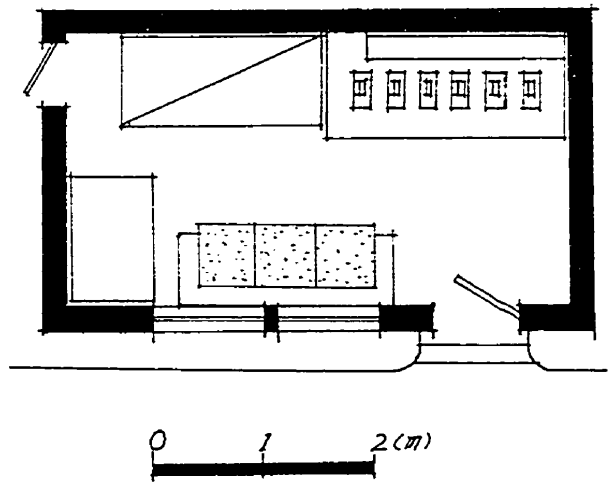
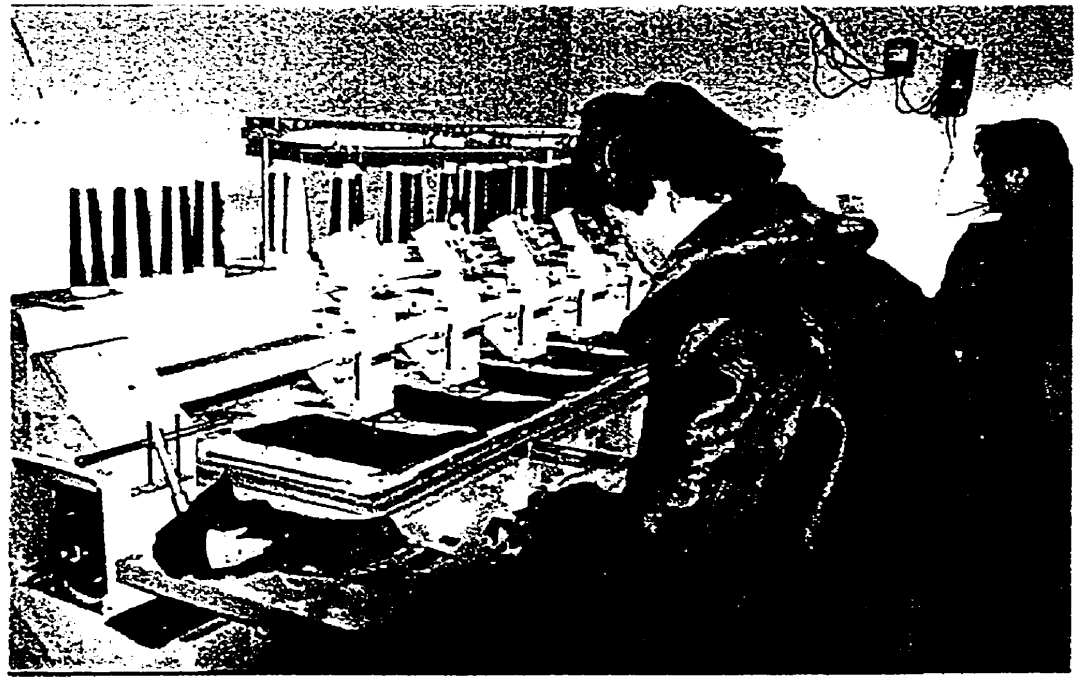


Figure 74 Sample 16: #11 Macun, electronic embroidery workshop



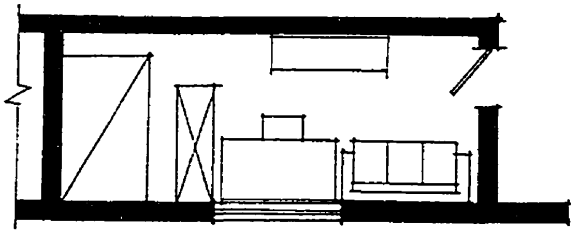
A. Floor plan



B. Interior scene

Figure 75 Sample 18: Room A in # 15 Macun courtyard

A. Interior scene



B. Floor plan

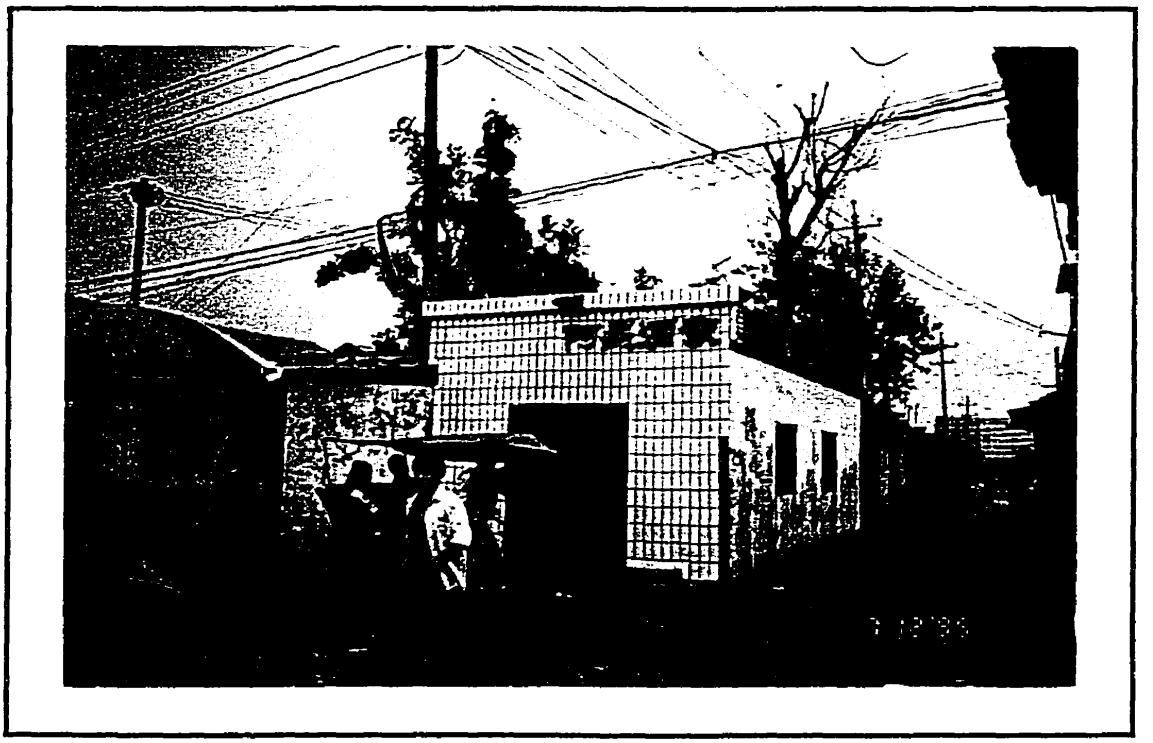
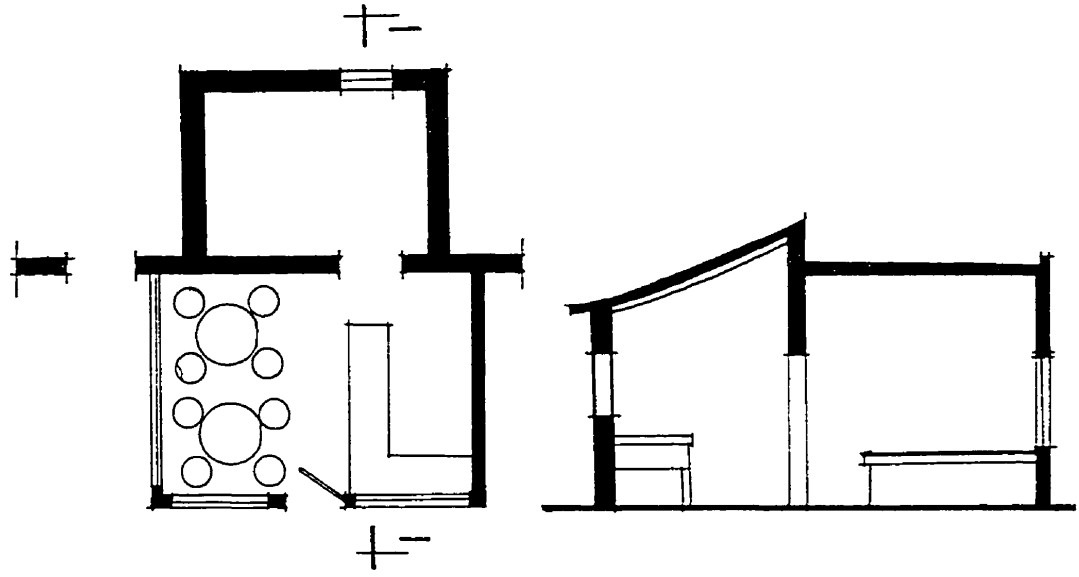


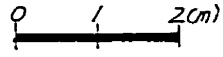
Figure 76 Small restaurant in Macun

Figure 77 Snack bar in Macun

Figure 78 Sample 20: snack bar in Macun



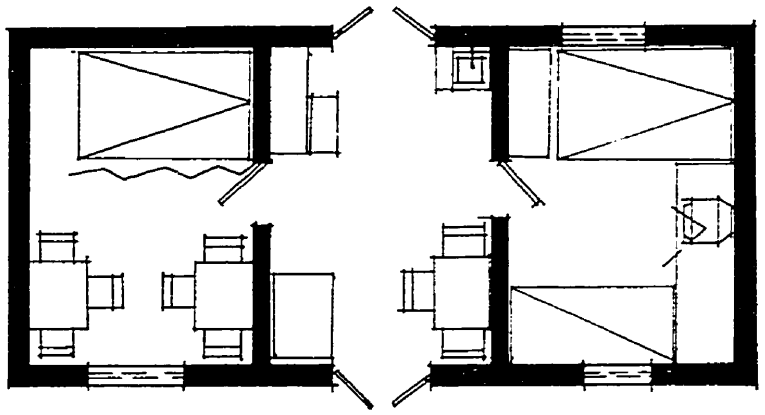
A. Floor plan



B. Section I-I

C. Exterior scene

Figure 79 Sample 21: Snack bar next to Jilei courtyard



A. Floor plan

B. Interior scene

Figure 80 Scene in Macun food market

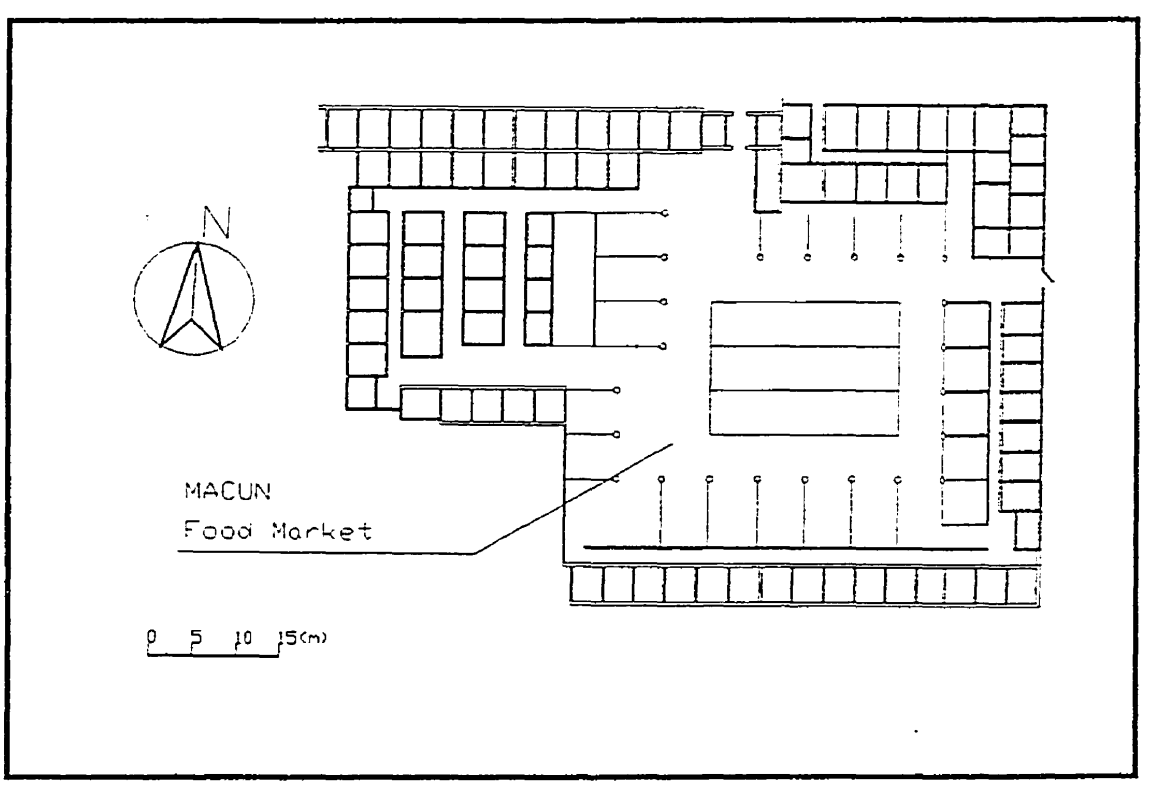
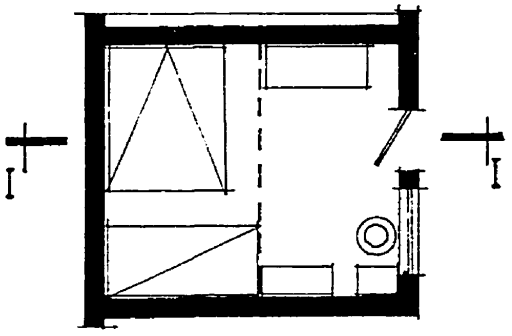
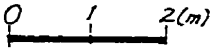


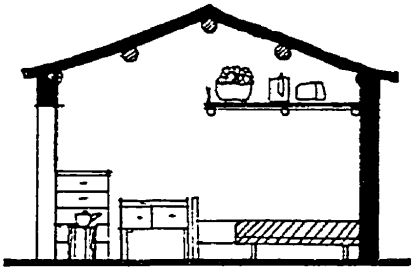
Figure 81 General layout of Macun food market

Figure 82 Sample 24: Room #15 of Macun food market



A. Floor plan



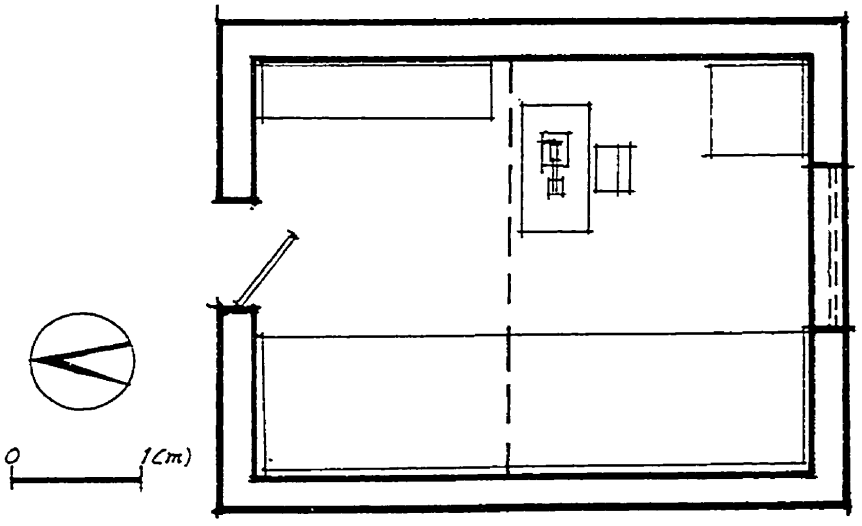


B. Section I-I

C. Exterior scene

Figure 83 Sample 25: Room # 45 of Macun food market

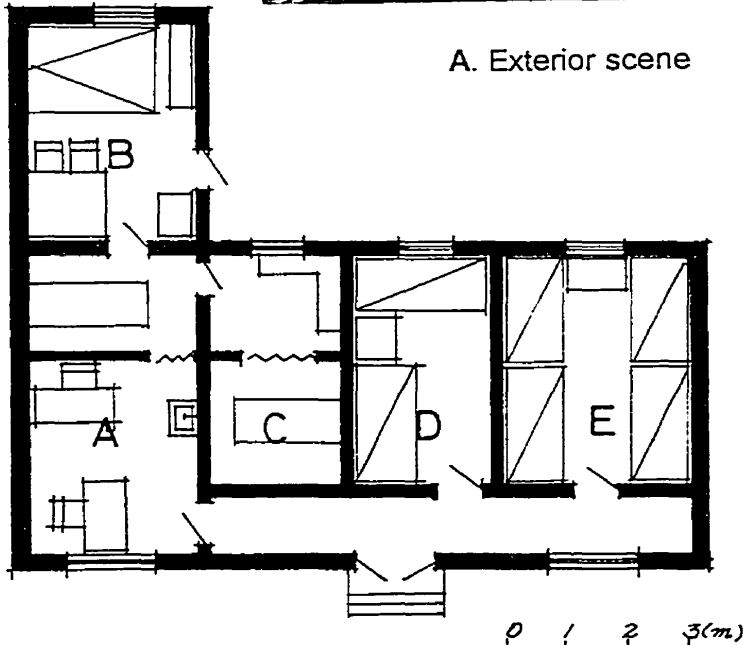
A. Interior scene



B. Floor plan

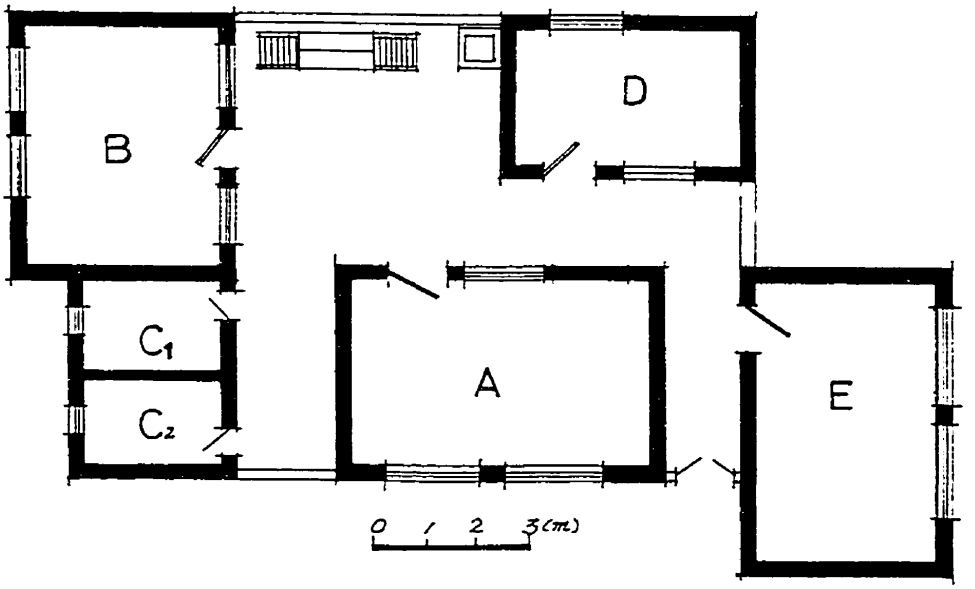
Figure 84 Sample 27: Clinic in Macun

A. Exterior scene

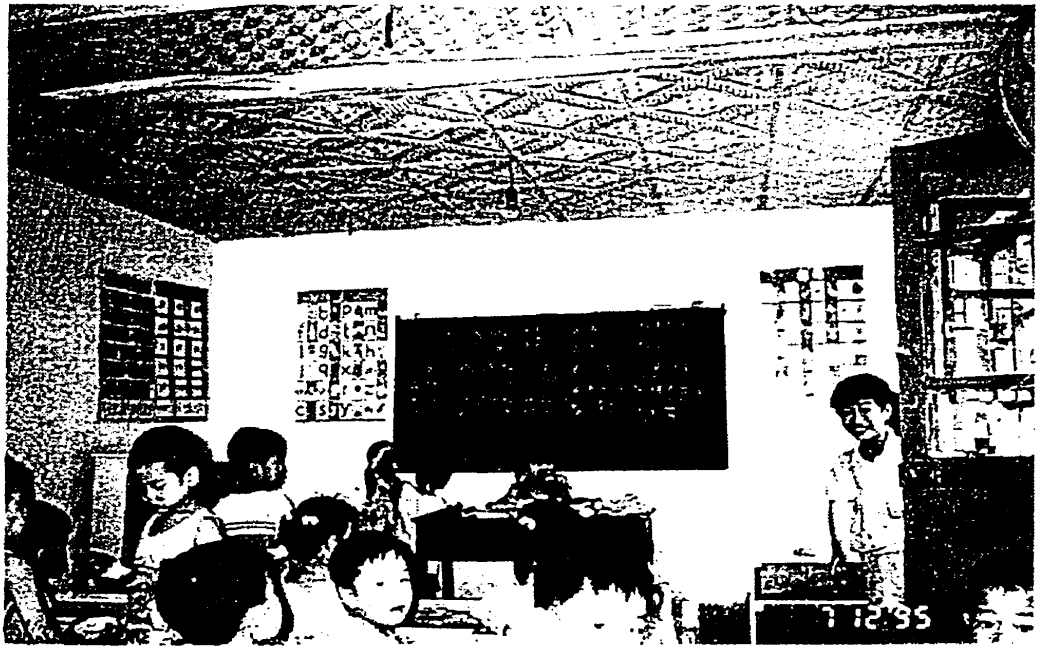


B. General layout

Figure 85 Sample 28: Yihe kindergarten (I)

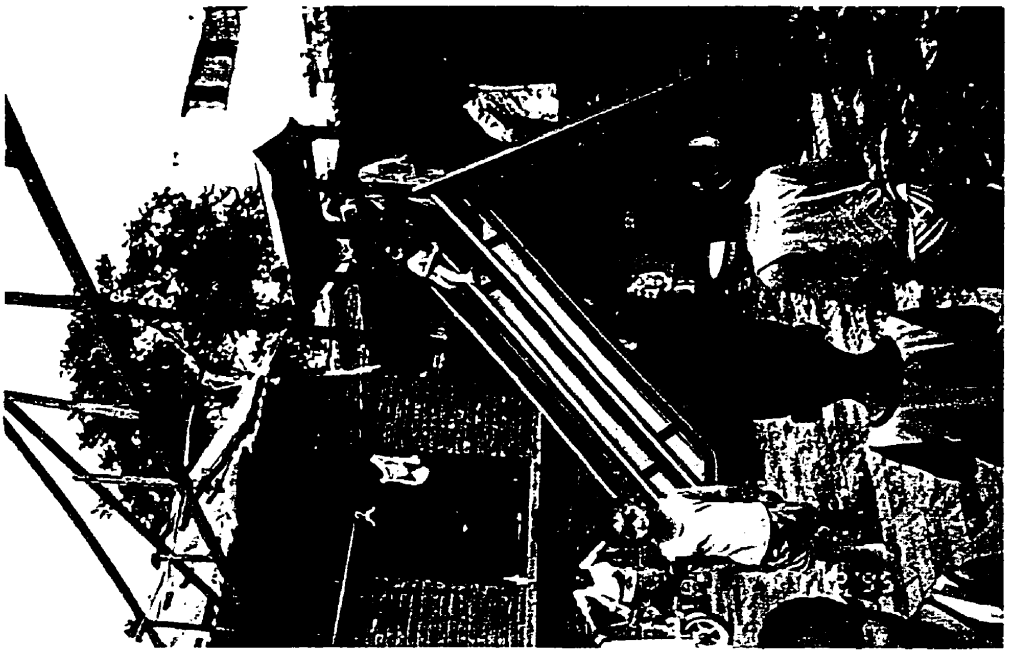


A. General layout

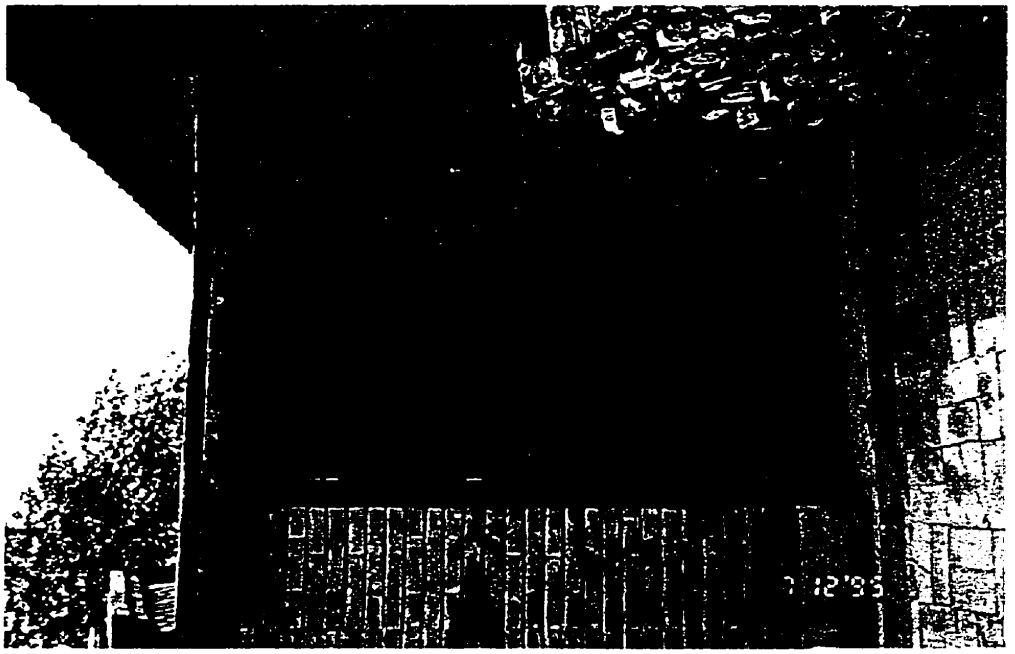


B. Interior scene of room A

Figure 86 Sample 28: Yihe kindergarten (II)

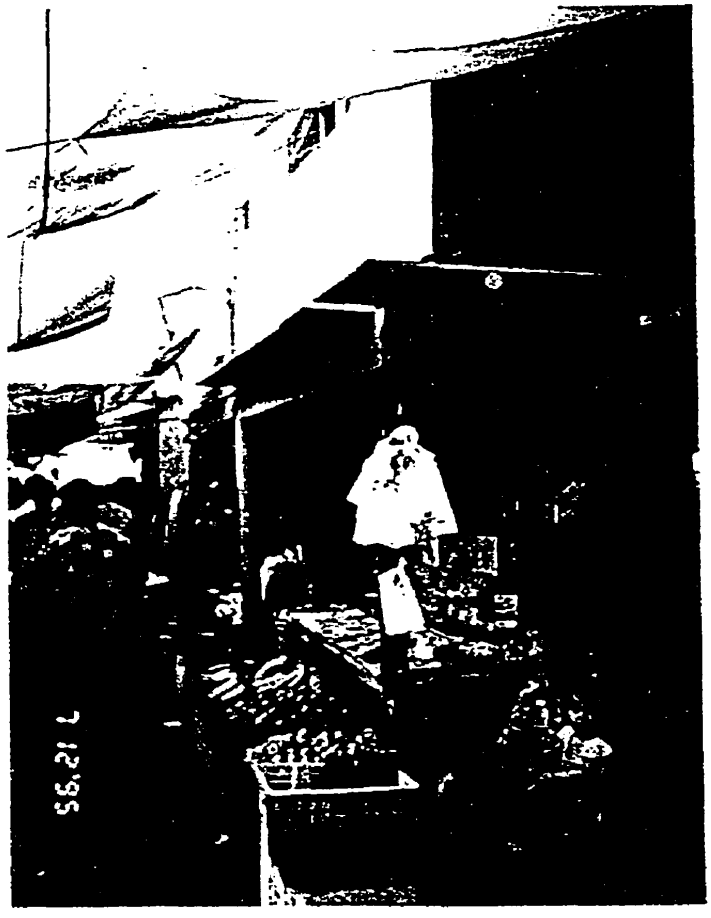


D. Children's playground

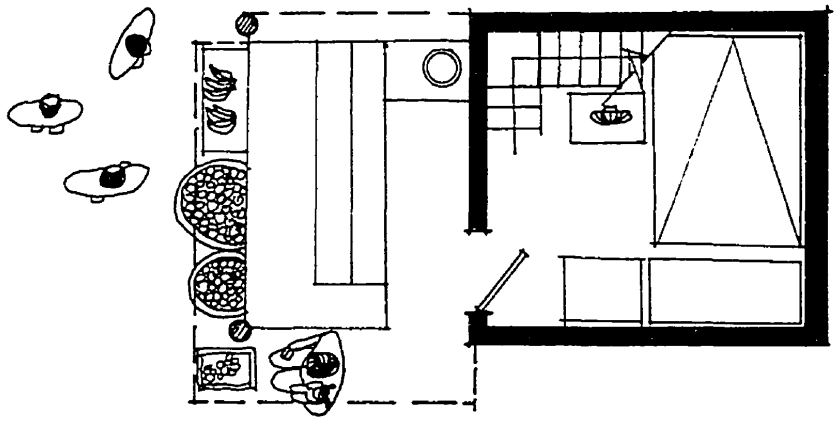


C. Entrance from main *huton*

Figure 87 Sample 29: Self-built migrant house in Macun(I)



A. Exterior scene



B. First floor plan

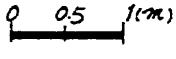
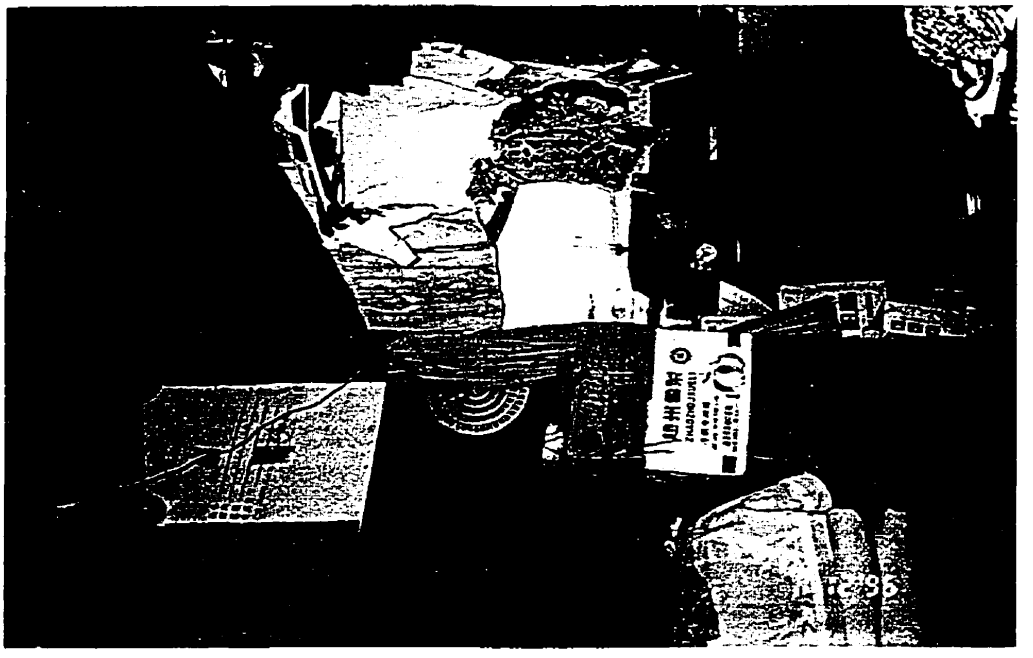
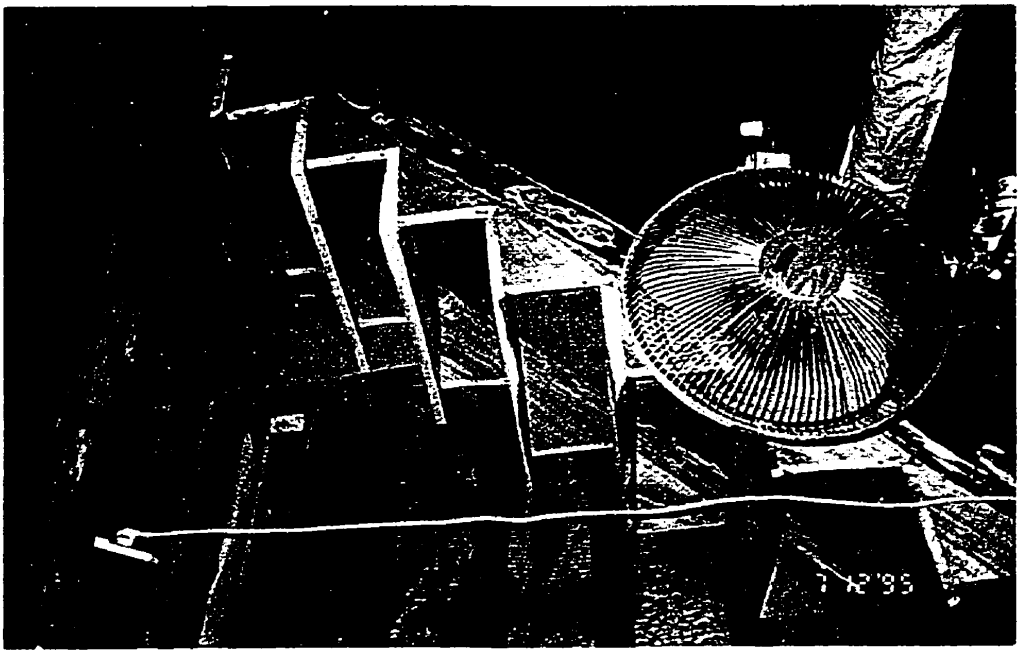


Figure 88 Sample 29: Self-built migrant house in Macun(II)

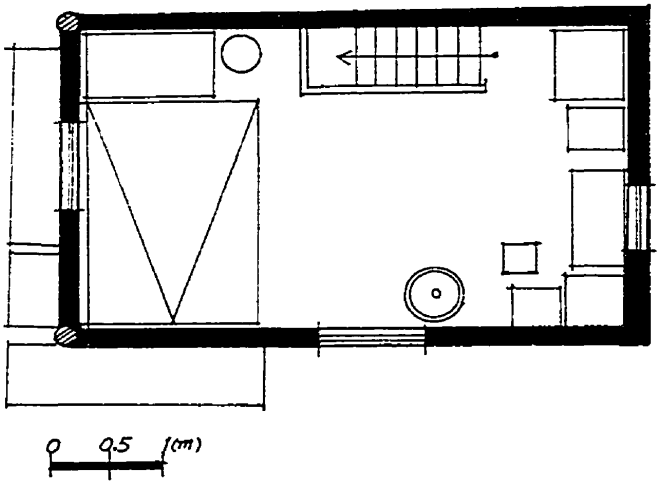


D. Interior scene of second floor



C. Interior scene: narrow stairway leading up

Figure 89 Sample 29: Self-built migrant house in Macun(III)



E. Second floor plan

F. Interior scene of the second floor

Figure 90 Inner scene (I): Migrant compound built by a migrant developer

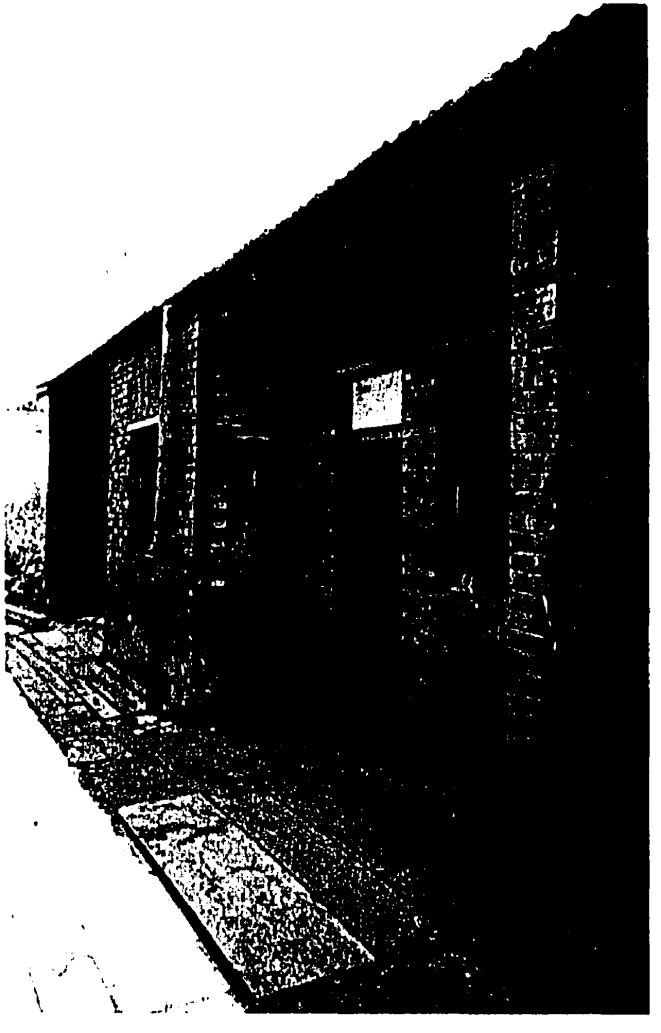
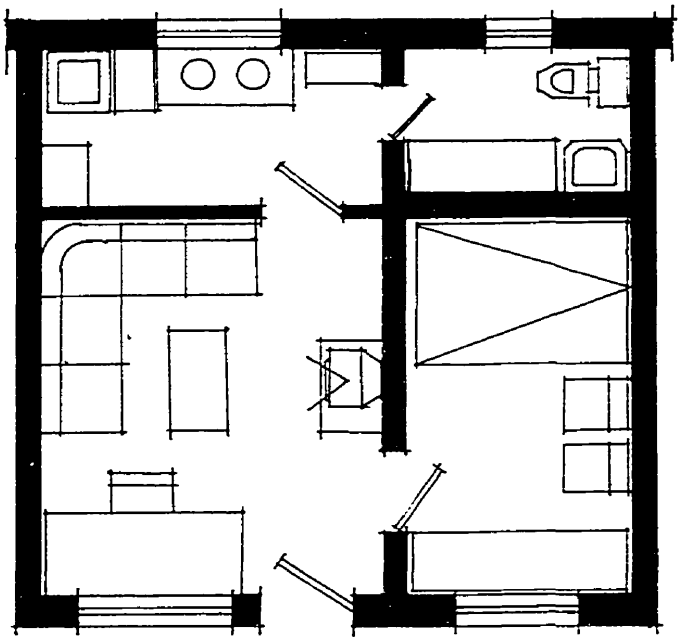
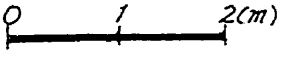


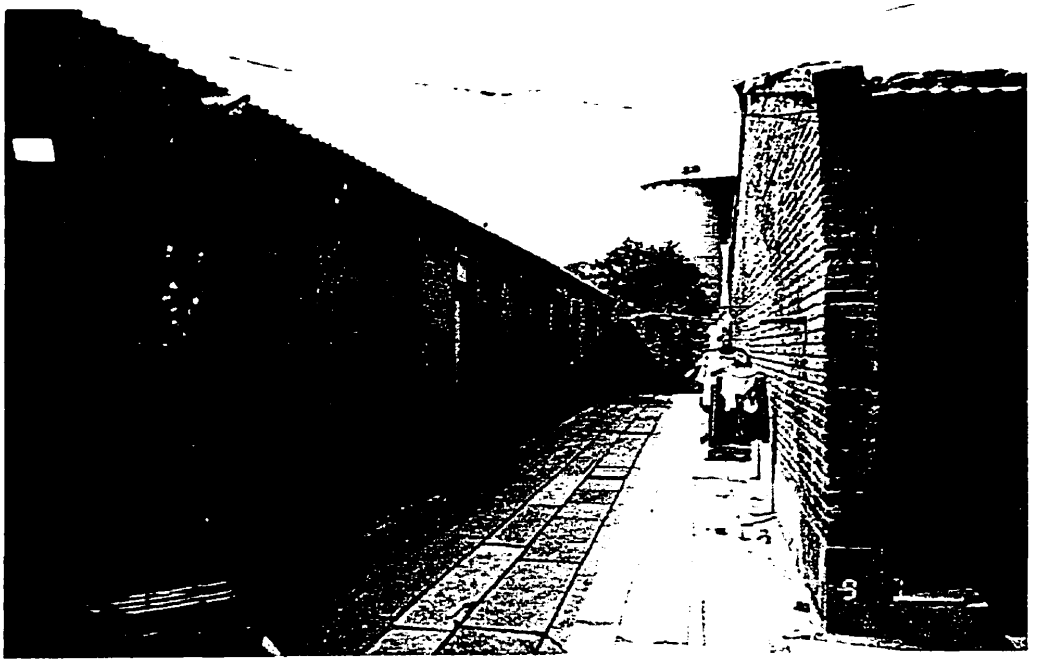
Figure 91 Inner scene (II)

Figure 92 Sample 30: Real estate developer's home(I)



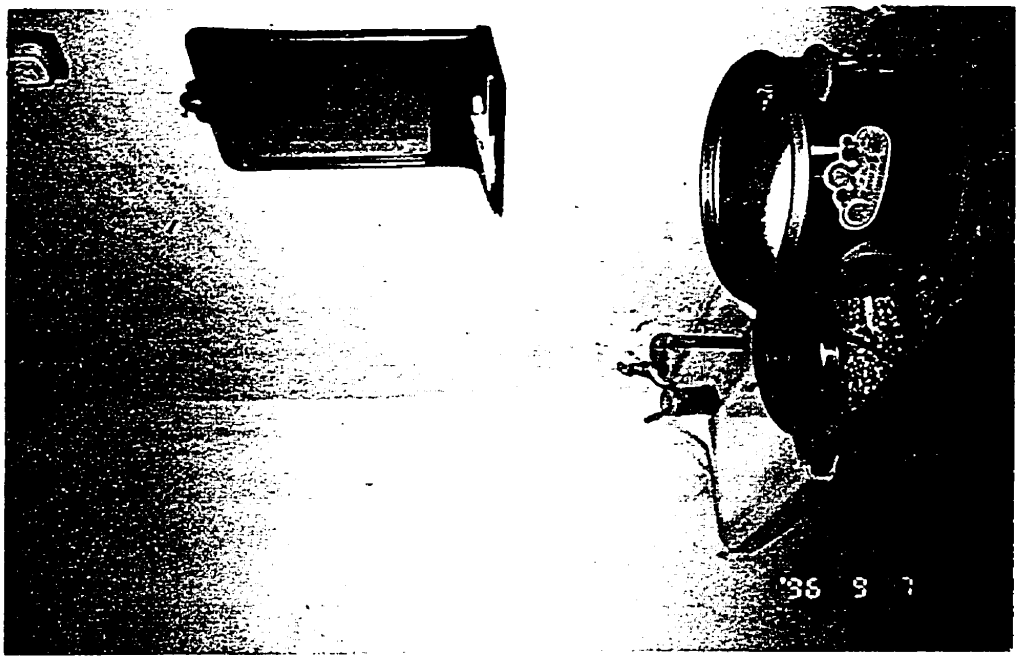
A. Floor plan



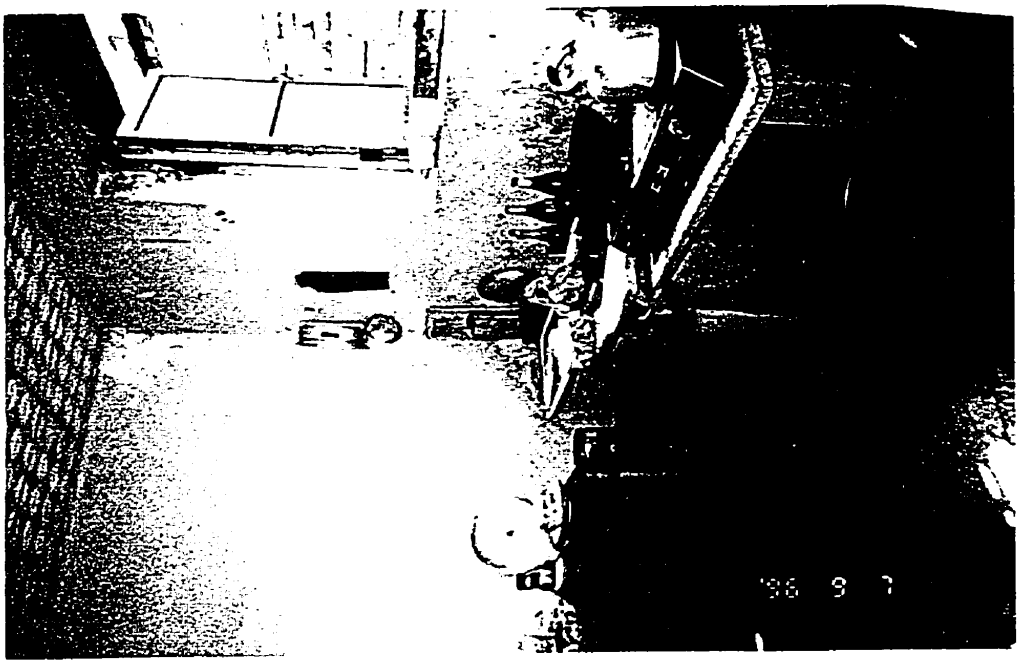


B. Exterior scene

Figure 93 Sample 30: Real estate developer's home(II)



D. Interior scene of toilet



C. Interior scene of kitchen

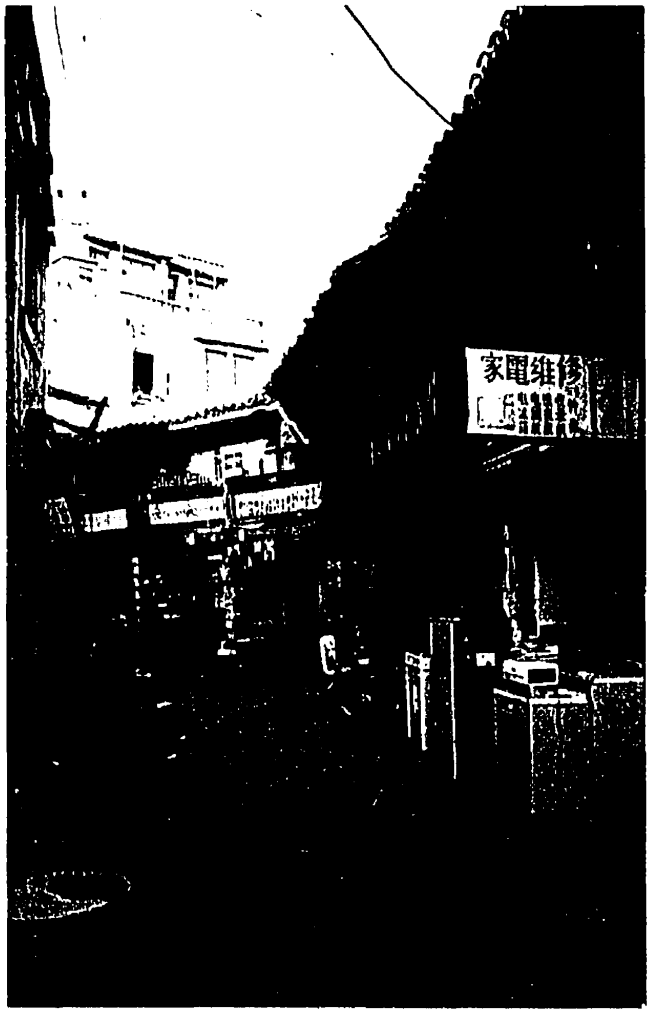
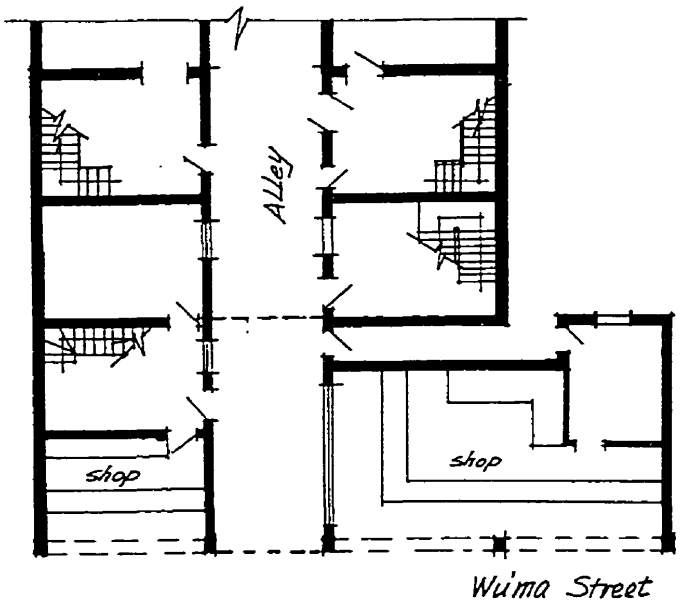


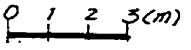
Figure 94 Typical shop house in Wenzhou

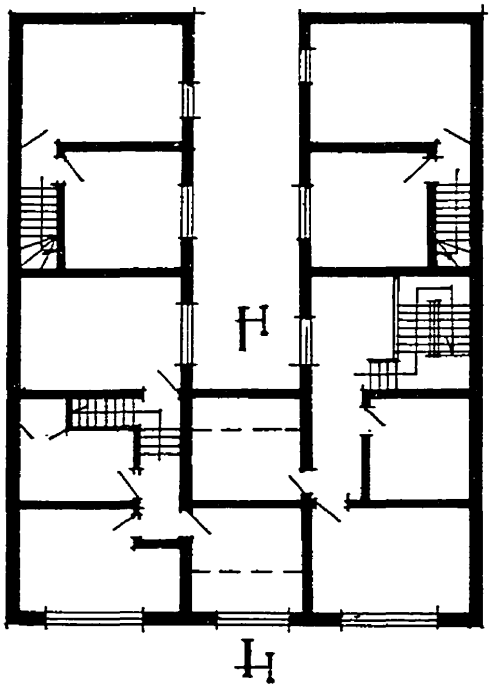
Figure 95 Street scene

Figure 96 Sketches of Sample I

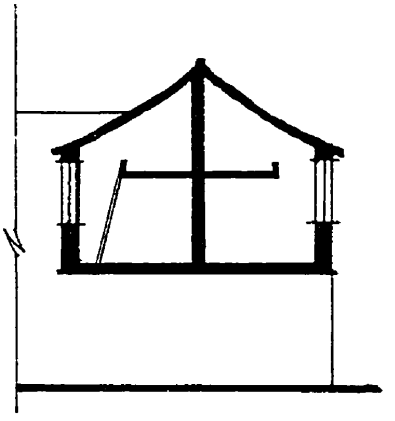


A. First floor plan



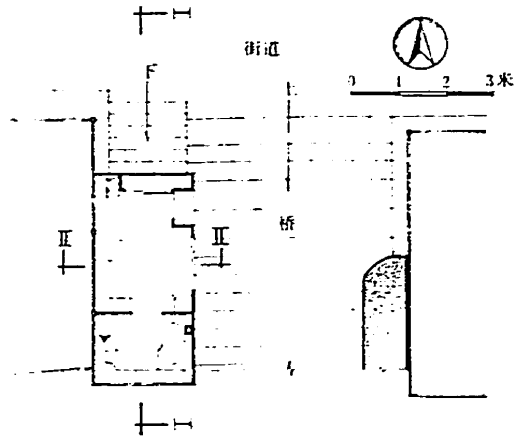


B. Second floor plan

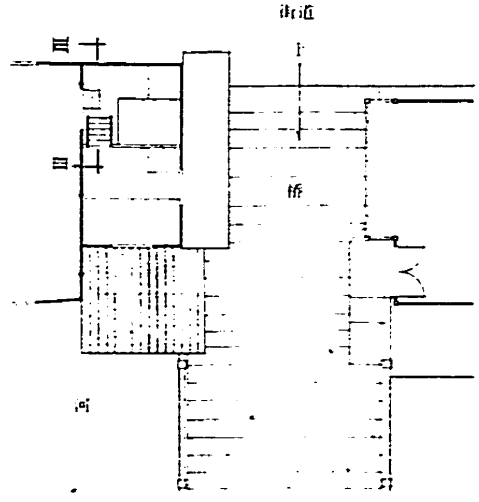


C. Section I-I

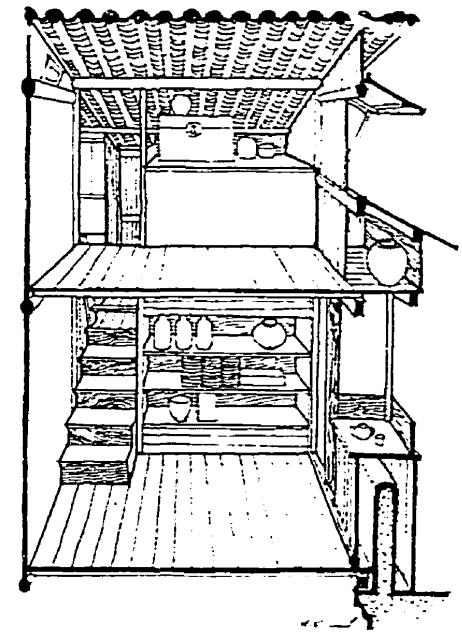
Figure 97 Sample II: Typical Zhejiang vernacular house (I)



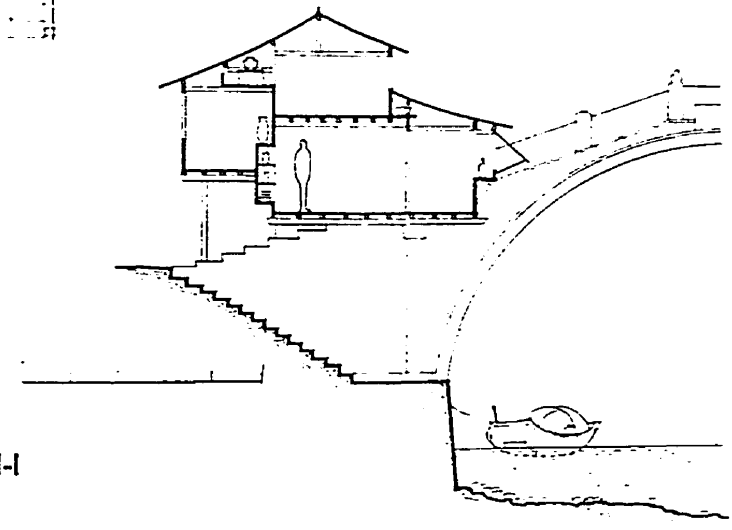
A. First floor plan



B. Second floor plan

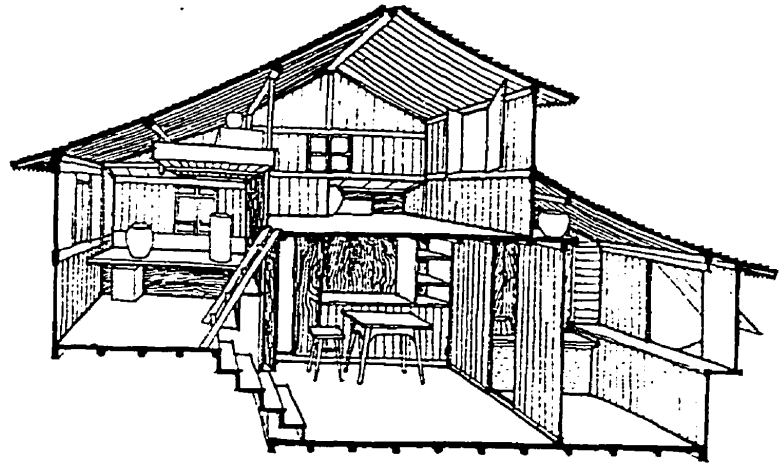


D. Section II-II (perspective)

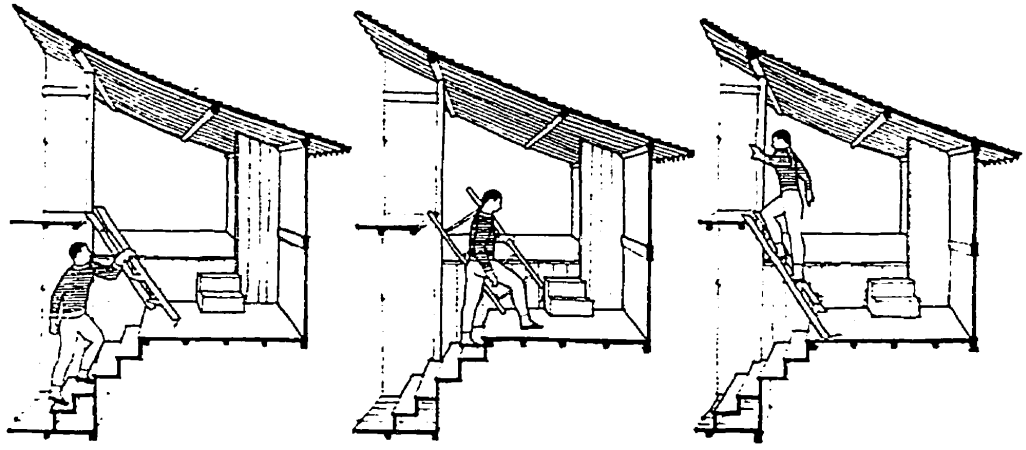


C. Section I-I

Figure 98 Sample II: Typical Zhejiang vernacular house (II)



E. Section I-I (perspective)



F. Section III-III: Use of movable stairway

IMAGE EVALUATION TEST TARGET (QA-3)

150mm

6"

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