City Conservation and Urban Villages in China
- A Case Study of Design and Planning Method in Urban Village Renovation Project in Kunming City

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Abstract

During the last two decades of rapid urban development in China, Chinese cities expanded their boundaries significantly. Many villages that used to locate at the outskirt of cities have found that they are surrounded by the newly built up urban environment. The emergence of urban villages as the unique phenomenon during the urbanization of China has become a hot issue due to the social problems they brought in. With the implement of urban village renovation projects, a great number of demolition and construction have brought huge pressure on environment and society. Furthermore, the urban village renovation projects can lead to the situation that urban diversity is erased by the emergence of a large number of brand new and similar residential areas. Facing the challenge of the new construction projects and impact on living environment, this study aims to investigate how we can improve the current design and planning methods on urban village renovation projects to achieve sustainability of urban development in city Kunming of Yunnan province, Southwest China. So the new built residential area will not be turned into the new urban village in the future.

In the dissertation, following the discussions of the historical urban development of Kunming, the history and unique features of urban development in Kunming are expounded to form a detailed understanding of the city. By analyzing two case studies of urban village renovation projects, the research has explored the advantages and disadvantages of current design and planning methods used in the city. It has used the sustainable development criteria from the UK, such as BREEAM for Community, as reference to explore the urban development in a Chinese city. Through questionnaire surveys, this research studies the needs of local residents and the current situation of urban villages. In conclusion, the dissertation suggests alternative methods of designing and planning for urban villages in China.

Table of content

List of Figures

Fig. 3.7 Sketch Map of Preliminary Plan of Kunming City Compiled in 1953 *In:* Liu Xue. (2002) *Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House, p.134

Fig. 3.8 Comprehensive Planning Map of Kunming City in 1959 *In:* Liu Xue. (2002) *Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House, p.136

Fig. 3.9 Map of Ten-year Construction Planning of Kunming city in 1962 *In:* Liu Xue. (2002)*Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House, p. 138

Fig. 3.10 Sketch Map of Area Reclaimed from Dianchi Lake *In:* Liu Xue. (2002)*Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House

Fig. 3.11 Comprehensive planning of Kunming City compiled in 1982 *In:* Liu Xue. (2002)*Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House, p. 167

Fig.3.12 Four Districts of Kunming city

Fig. 3.13 Investigation table of built-up area in central city (The report of urban villages of Kunming, 2008, p.4)

Fig. 3.14 Investigation table of area within the second ring road (The report of urban villages of Kunming, 2008, p.6)

Fig. 3.15 Investigation table of Pan Long District (The report of urban villages of Kunming, 2008, p.8)

Fig. 3.16 Investigation table of Wu Hua District (The report of urban villages of Kunming, 2008, p.11)

Fig. 3.17 Investigation table of Guan Du District (The report of urban villages of Kunming, 2008, p.13)

Fig. 3.18 Investigation table of Xi Shan District (The report of urban villages of Kunming, 2008, p.15)

Fig. 4.1 Zhao wei (n.d) Crowded urban village in Kunming [online image] Available at: < http://news.yninfo.com/finance/fdc/200803/t20080311_597126.htm> [Accessed 23 October 2011]

T6zMT.jpg> [Accessed 11 October 2011]

Fig.5.2 Sample methods and procedures

Fig.7.1 Jiang, W. (2010) *Flowers* [online image] Available at: < http://user.qzone.qq.com/259419881> [Accessed 25 August 2011].

List of Tables

Abbreviation

AQSIQ: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

CBD: Central Business District

MCPRC: Ministry of Construction of the People's Republic of China

NPC: National People's Congress

NPCSC: National People's Congress of the Standing Committee

PATRK: ¡Planning Administration and Technical Regulation of Kunming¡

PDIK: Planning and Design Institution of Kunming

PGGOK: People's Government General Office of Kunming

SMD: Southern Metropolis Daily

SOHO: Small Office Home Office

SPUVRP: Specialized Planning of Urban Village Renovation Project

UN-HABITAT: United Nations Human Settlements Programme

Part 1: Theoretical background and context

Chapter 01: Introduction

Fig. 1.1 Zhao, W (n.d.) *Shi Hu Guan cloverleaf junction* [online image] Available at: <http://www.km.gov.cn/structure/xtzkm/tzhj/jcssnr_123019_1.htm> [Accessed 12 May 2011].

1.1 Introduction

During the last two decades of rapid urban development in China, the urban expansion of cities in southwest of China has been overwhelming, and has brought a huge challenge to the living environment and conditions to local inhabitants. Urban development in China has some common concerns. These are the inefficient land utilization resulting from excessive conversion of agricultural land for urban use, the over sized scale of land use, and ineffective construction planning (SMD, 2011). The rapid expansion of urban areas with inefficient planning for land utilization also puts great pressure on sustainable development in terms of social, economic and ecological factors. Due to the rapid urban expansion, many villages used to be situated at the outskirts of a cities have been enclosed by newly developed urban areas, which are named as urban villages in China. In a narrow sense, the urban village is a general residential area that has been developed by arable land occupation and resettlement of the original inhabitants, who have changed their residence registration from rural to urban. In a broader sense, the urban village is a traditional residential area which has been left far behind the general urbanization and is outside the city management system (Chen, 2009).

The aim of this dissertation is to investigate how the design and planning methods used in the urban village renovation projects in Kunming can be improved in terms of sustainable development. Following the discussions of the historical urban development of Kunming, this study investigates the unique characteristics of urban villages formed in the 1980s. By analyzing two case studies of urban village renovation projects, the research has explored the advantages and disadvantages of current design and planning methods used in Kunming. This study has used the sustainable development criteria from the UK, such as BREEAM for Community, as reference to explore the urban development in a Chinese city. The history and unique features of urban development in Kunming are expounded to form a detailed background understanding of the city. In addition, the needs of local residents and the current situation of urban villages in Kunming have been thoroughly investigated through questionnaire surveys. The dissertation has suggested alternative methods of designing and planning for urban villages in China at the end.

In the urban villages of China, the living condition of residents is much lower than those in the built-up urban areas. With China¡s reforms, through opening-up, and the rapid development of private enterprise, migrant workers from neighbouring areas have flooded into the city to seek new ways to support themselves. The urban village has usually been their first choice to settle in, because of the availability of houses with low-rent and affordable living costs (Zhang and Wang, 2004).

The urban village, as the outcome of the unique culture and institutional background of China, contains the characteristics of both urban and rural environments. Residents of urban villages have experienced a hard time due to the significant differences in

living environment, conditions, cultural conflicts, life-style, compared with other urban residents, even though where they live is situated in built-up urban area. Isolated by the modernized urban area, urban village is like an island, without enough social infrastructures, community culture or a sense of belonging.

Regarding the background of urban development in China, in February 2008, the Urban Council and City Government of Kunming passed a strategy that 336 urban villages of Kunming should be rebuilt or reconstructed within a limited period of five years. From the 1st to the 12th of February, 2008, the Design Institute of Kunming held an investigation of 57 urban villages which were situated in the central city area of Kunming, and published the first group of urban villages to be rebuilt or reconstructed in the following month. The City Government of Kunming also issued a mandatory schedule of urban village renovation, stating that the first group of urban village renovation projects should aim to finish the planning process within four months, and must also begin to implement demolition in October of the same year. Additionally, the list for the second group of urban village renovation projects was published in July, 2008, and the City Government of Kunming requested that deadline for this phase of the urban planning was by August of the same year, with the demolition implemented by December (PGGOK, 2008).

Such mandatory requirements caused the urban village renovation project to run into a number of disputes and problems. The simultaneous implementation of a large number of projects attracted the attention of a lot of developers, and along with the lack of capital investment in the process, most of urban village renovation projects turned into commercial property development by the name of ¡livelihood issue-solving¡ or ¡welfare housing¡. A large number of high quality residential areas, office buildings, SOHO (Small Office Home Office), shopping malls, commercial streets, supermarkets and sports centres appeared suddenly in relatively adjoining areas, which brought up a mass of social and cultural conflicts, market competition and other more serious unsustainable issues.

Based on a full understanding of the history of urban development of Kunming, there must be ways to improve the development strategy. This study will discuss the advantages and disadvantages of the effects of ¡mass-demolition and mass-construction¡, architectural culture, street culture, neighborhood relations, and the reputation of Spring City, as the alternative of Kunming has gradually become less identifiable. There have been many discussions about China¡s urban villages research in the West from an institutional, economic, and sociological perspective. By combining this with the target of urban sustainability, this paper is an attempt to research areas in terms of sustainable urban design, cultural preservation, and the urban village concept in China. By using the sustainable methods of BREEAM for Community within the UK as references, this study reviews the urban development history of Kunming city and assesses the current design and planning methods of urban village renovation projects in Kunming.

The aim of this study is to try to gain more understanding of the process of sustainable development, and the unique features of urban development in Kunming. It also aims to analyze the status quo of urban village projects through two case studies of the most popular current design and planning methods, in order to understand the demands from all stakeholders. Furthermore, a questionnaire survey is adopted to investigate the status quo of the urban village, from the viewpoints of local residents, developers, architects and city planners. By researching the sustainable urban development concepts of the UK, and the urban village renovation projects of Kunming, this paper aims to answer the following questions:

What are the unique features of urban development throughout the history of Kunming?

What was the status quo of urban villages in Kunming before the renovation projects were carried out?

How have the renovation projects changed the urban villages in Kunming?

How can the design and planning methods currently used in the renovation projects of urban villages be improved in terms of sustainable development?

1.2 Boundary of research

This paper is focused on the design and planning methods used in Kunming for mass urban village renovation projects. The boundary of this research project relates to the research field of sustainable urban design, and cultural preservation within urban development. It has also studied the concept of urban village in the UK, sustainable methods of BREEAM for Community in the UK, and the urban development history of Kunming city. Based on these concepts, two case studies and a questionnaire survey are applied with regard to the planning methods in the early stages, combined with some community designing issues from BREEAM regarding climate change, resources, transport, ecology, business, community and place shaping. This research focuses primarily on sustainable community planning design. Therefore individual architectural design and innovation credit will not be discussed in great details.

1.3 Methodology and data collection

Through in-depth study, more and more researchers have become aware that both qualitative and quantitative research methods have their own advantages and disadvantages (Yang, 2005, p.1). However, simple qualitative or quantitative research methodology cannot solve the problem properly. In order to analyze and discuss the current status quo of the urban village in Kunming, the ongoing renovation projects, and views from all stakeholders as a central part of the project, the whole research has been characterized by integrating qualitative and quantitative methods.

There are two major methods of gathering data during the research process. Primary sources provide first-hand information, and secondary sources provide second hand data (Kumar, 2005, p.139). Primary data includes three data collecting methods, which are: observation, interviewing and questionnaire (**Figure 1.2**). Certain types of first-hand information, such as the attitudes of a community, health needs, evaluation of a social process, the job satisfaction of the employees of an organization, are collected from primary sources (Kumar, 2005, p.140). Secondary data is generally collected from secondary sources such as the age or gender structure of a population, or collection of data from articles, journals, magazines, books and periodicals to obtain historical and other types of information (**Figure 1.2**).

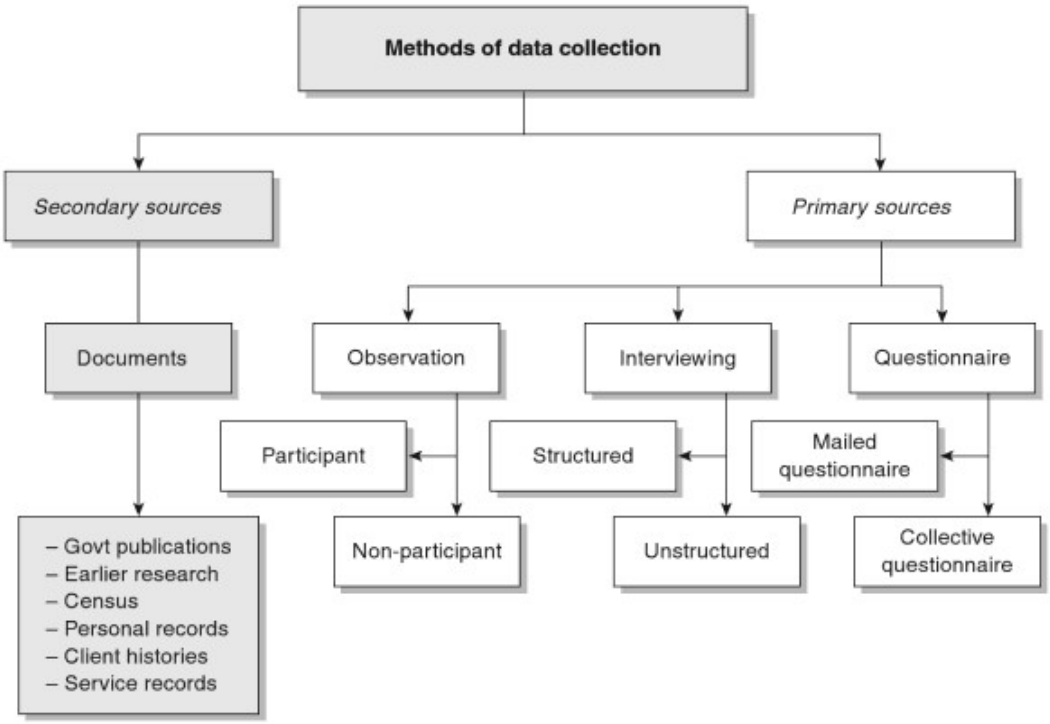


FIGURE 9.1 *Methods of data collection*

Fig. 1.2 Methods of data collection (Kumar, 2005, p. 139)

This paper combines two data collecting methods to gather and manage the research information. In the literature survey part, relevant theories such as secondary sources on sustainable urban design, cultural preservation within urban development, urban village concepts in the UK, sustainable methods of BREEAM for Community in the UK, and the urban development history of Kunming city have been collected, identified and unscrambled, to give a basic understanding and clarify the boundaries of the research field in this dissertation. All the literature has originated from the library collection of University of Huddersfield and literature archives, the City Planning Bureau of Kunming and a number of relevant official websites.

For case study, the planning of two urban village renovation projects in Kunming have been selected as primary sources within the time range of the year 2009-2010. Through the research and analysis of current design and planning methods of urban village renovation projects, construction background, the details of design planning and the requirements of local government have been collected and discussed. The research study has attempted to use a non-participant observation method in the first case of urban village renovation project, whilst taking a participant observation method on the second case study, as the member of the design group. In the latter case, I have taken part in the pre-planning process of decision-making, participated in evaluation meetings with experts and had close communication with developers, with the result that the research process has been analyzed and discussed with fewer preconceived notions and so can be well understood by readers.

In the questionnaire survey part of the study, the participants were divided into three main parts: key stakeholders, developers, and architects and city planners. The group of key stakeholders included four types of stakeholders (current residents, tenants, surrounding residents and relocatees) who played important roles during the urban village renovation project. In order to get a nearly 100% response rate, and the vivid reflections of respondents, this research was conducted by visiting local residents while handing out questionnaires during the survey.

1.3.1 Primary sources of information

During the research process, the two methods of case study and questionnaire were used to collect primary data. ¡None of the methods of data collection provides 100 percent accurate and reliable information.¡ (Kumar, 2005, p.139). Each data collection method has its advantages and limitations, which present a huge challenge to researchers in terms of how to manage available resources and improve the required research skills. The following sections introduce the sources of primary data, analyzing the advantages, and the reasons why the current researcher has used these data collection methods.

1.3.1.1 Case studies

By using the participant and non-participant observation methods as well as narrative descriptions about the two case studies, issues relating to how an urban village renovation project is started, what procedures are necessary, what design principles are of most concern to developers, architects and city planners, are clearly described in Chapter 3. From the perspective of learning from experience, the author has the opportunity to work practically on urban village renovation projects in Kunming. Through a whole year of working experience, from a number of cases of urban village renovation projects that were carried out in Kunming and two of them, with typical design and planning methods, were selected as the case study part of this dissertation. In the first case, a non-participant observation method was adopted to observe the

whole process of the project, which also included reading the relevant materials such as Government documents on the urban village renovation project, experts¡ reports on evaluation suggestions, and also observing the design process of architects and city planners. In the second case, I was involved in the design process of a middle school planning in the planning stage of the urban village renovation project, which meant that a number of vivid first-hand sources, including design concepts, opinions from communicating with design group members, developers and local government, and decisions from experts¡ evaluation meetings could be collected through observation. Throughout the whole process of the project, analysis has been linked with knowledge of the field of sustainable urban design and appropriate conclusions have been made. To avoid subjective and arbitrary generalization, all the analysis and discussion is based on the existing master plan, which had been proved at the verification meetings held by evaluation experts committee and had also been giving permission for construction.

The reasons why these two master plans of urban village renovation projects have been used as the case study part of the dissertation include two main aspects: on the one hand, both of them were current ongoing projects when the dissertation was written, which meant that it was easier to get useful and available sources as the projects went on; on the other hand, these two urban village renovation projects had already been given permission for construction by evaluation experts, and so represents the most common standards for urban village renovation projects in Kunming.

1.3.1.2 Questionnaire survey

As important roles during an urban village renovation project, the viewpoints of key stakeholders, developers, architects and city planners should be a requisite part of the process of evaluating a social programme. The questionnaire survey as a data collection method which could collect primary sources from a large number of people, was especially important in researching an urban village renovation project which had been regarded as having social livelihood issues. In the questionnaire survey part of this dissertation, by giving the different situation of each group, the response rate of respondents was a problem which needed to be addressed. In order to improve the response rate, I attempted to visit the residents while handing out questionnaires, and due to the fact that most of the respondents in the group of key stakeholders did not have a well developed educational background, I explained the questions which they did not fully understand during the survey.

1.3.2 Secondary source of information

According to Li (2002), the emergence of the urban village could not be simply attributed to an urban sprawl, because the phenomenon of the urban village in China had never occurred in the urbanization process in other countries (Li, 2002). To

explore the reasons for the formation of urban villages in China, a great deal of earlier research, from the urbanization history of Kunming to the unique institutional background of China, has been focused on and evaluated in the literature survey part; additionally, a number of relevant Government publications on urban village renovation projects have also been collected and discussed in this part of the dissertation. In order to learn from the experience of a Western country, research literatures about sustainable urban design, cultural preservation, different concepts of an urban village in both the UK and China, sustainable architectural methods, and assessment of methods of making a sustainable community in the UK have been collected from publications such as books, journals, newspaper articles and a series of government publications. All the materials which were collected in the literature survey became a solid foundation which could give a better understanding of the development of the urban village in China, and this gave the current researcher a chance to approach the question of how the design and planning methods used in the urban village renovation projects could be improved as another options to make the urban development more sustainable.

1.4 Dissertation structure

Excepted for Chapter 1 which is the introduction part of the dissertation, the whole dissertation contains three main parts.

The first part is a literature review which includes two sections: a literature review and a historical review of Kunming. The content of this part is mainly about the background and achievements of urban development from the perspective of sustainable development in the UK, and the urbanization history of Kunming.

The second part is the case study, which includes two urban village renovation projects in Kunming, together with their design and planning methods. This part is based on analysis and discussion regarding the field of knowledge of sustainable urban development, in order to explore possible improvements in current urban village renovation projects, and the potential of making them sustainable.

The third part is questionnaire survey. The main purpose of the questionnaire survey is to understand the public opinions regarding the urban village renovation projects of Kunming, which may contain potential ideas of how to improve current design planning; additionally, the public voice can also indirectly reflect the demands and concerns of respondents, which could lead to the design planning of urban renovation projects being able to meet the real needs of inhabitants.

At the end of the dissertation, the advantages and disadvantages, concerns and possible improvements to the current design and planning methods of urban village renovation projects are summarized in an analysis and discussion of the whole focus of the dissertation, which is whether it is possible to provide other options in order to

make an urban village renovation plan more acceptable and sustainable.

This chapter illustrated the research background of urban development of Kunming, and also clarified the boundary of the study. It explored the unique phenomenon of urban villages in Kunming, China from the point of view of sustainable development. In addition, research skills such as methodology and methods of data collection were discussed and explained with details in this chapter. In the next chapter, concepts of sustainable development in the UK is discussed and used as a reference of evaluation criteria in the analysis of following case studies.

Chapter 02: Literature review

Fig. 2.1 Roger, D. S (n.d.) *Bilston Urban Village* [online image] Available at: < http://www.bilstonurbanvillage.co.uk/archived_news.php> [Accessed 20 October 2011]

Fig. 2.2 Aymi (n.d.) *Cheng Zhong Cun* [online image] Available at: http://www.panoramio.com/photo/45004825 [Accessed 20 October 2011]

This chapter focuses on the requirements of sustainable urban design; cultural preservation within urban development; the concept of the urban village, both in China and the UK; sustainable architecture, and the principles of BREEAM for Community in the UK. It provides a new understanding of sustainable development related to the process of urbanization in cities of China. In addition, it also clarifies the difference between the nature of urban villages in China, and those in the UK, which may be confused due to having the same appellation.

2.1 Sustainable urban design

Here is a commonly description of urban design:

> Urban design is the art of making places for people. It includes the way places work and matters such as community safety, as well as how they look. It concerns the connections between people and places, movement and urban form, nature and the built fabric, and the processes for ensuring successful villages, towns and cities.
> (Environment, 2000, p.8)

Moreover, the purposes of Urban Design have been pointed out in ¡*Urban design, the architecture of towns and cities*¡:

> ? To make the extend of the city comprehensible
> ? To make the city human
> ? To relate urban forms to natural settings
> ? To weave new centres into the urban fabric
> ? To complement the monumental with the mundane
> ? To complement the urban with nature
> ? To create key focal sites
> ? To make the city a harbour of diversity
> (Spreiregen, 1981)

There is a most commonly accepted definition and a good point to begin an exploration of sustainable development which is published by World commission on environment and development in its famous report ¡*Our Common Future*¡ in the year of 1987. ¡Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.¡ (Brundtland Commission, p.43). This definition contains three key ideas: development, needs, and future generations. According to the report and its key ideas, urban sustainability can be defined as that community reaches the target of sustainable development which can balance the demands between the present and our future generations.

Sustainable development is now commonly classified as having three main

components: economic sustainability, environmental sustainability and social sustainability (PITTS, 2004, p.4). Sustainable urban development highlights the need to achieve environmental targets and the achievement of a balance with social and economic considerations.

Cities provide housing and job opportunities. For a better life and secure jobs, more resources have to be moved into the city to support the lives of its inhabitants. For that reason, continued urbanization will bring enormous harm to the environment. Since the reform and opening-up policies of 1978, along with rapid economic development and the establishment of an urban development strategy, the urbanization process of China has been accelerated. According to the general definition of the level of urbanization, which in academic circles is counted as the percentage of non-agricultural population within the total population, the urbanization rate of China has increased in proportion from 17.92% in 1978 to 43.90% in 2006 (China Statistical Yearbook, 2006). The urbanization following the reform and opening-up policies in 1978 developed alongside the rapid economic growth of China. The gaps between urban and village areas were gradually narrowing. Because of the development of township enterprise in particular, the characteristics of urbanization in China have emerged as the rapid expansion of small towns and the transformation of the population from villagers to urban residents. Urbanization in China seems divorced from the principle of gradual development. With the two factors of rapid ¡urbanization of land¡, and uncontrolled urban development, urbanization in China has advanced in a rash manner (LU, 2007, p.2). A large number of high-quality land resources were destroyed in this particular period. The infrastructure construction in the expansion of urban land took over fertile farmland, woodlands, water areas, wetlands and other ecological land. It also changed the composition and structure of the biological environment, caused a decrease of environmental capacity, and did harm to the ecological environment.

Therefore, studies on urban sustainability should be conducted within the actual situations, and in association with the local strengths and weakness. Given the varying degrees of urban development in different countries, the uniform evaluation criteria and design approaches for sustainability may not be suitable for every country and city. Urban sustainability is a long-term process. It needs to start gradually, understand the different aspects of current strengths and weaknesses, and make the evaluation criteria and design approaches relevant to the locality.

2.2 Cultural preservation within urban development

China is now at a stage where its national strength is developing at the most rapid rate since the country was founded. All the medium-sized and small cities have already prepared massive construction projects. High-tech parks, economic development zones and new commercial streets have become the typical mode of city planning and integration of resources, and have also become an important symbol of the strength of

a city. Led by the objectives of competition in the cities and the values of urban development, the transformation of old towns, old streets and the reconstruction or demolition of old houses have inevitably appeared. In view of contradictions between old and new, and with limited conservation systems or relevant laws, a large number of historic districts and cultural sites have been damaged or even disappeared.

2.2.1 Culture and city

Culture, as a source of recollections and pictures, symbolizes ¡who belongs where¡ (Coccossis and Nijkamp, 1995). Culture is based on human necessities, and the development of culture has always been inseparable from human communication and activities. This being the case, the content and development of culture cannot be copied. All the historically created designs for living, explicit and implicit, rational, irrational, and non-rational, exist at any given time as potential guides for the behaviour of men (Kluckhohn and Kelly, 1945). Culture as a ¡non-renewable resource¡ (NPCSCC, 2002), along with local historical and cultural heritage, plays a key role in the strategy of reconstruction of old cities and towns. Cities have always played a fundamental role as centres of cultural and economic activity. They create high levels of economic innovation and growth, as well as producing culture in the form of arts, ideas, styles and tendencies (Scott, 1997). Culture is not just a business card for a city; it has a responsibility to represent the origins of a city or the long civilization of a country. For this reason, culture should be a sign of the differences between different cities.

2.2.2 Conservation of culture of city and the relevant law in China

The first specialized law relating to the field of culture in the People's Republic of China was the ¡*Law of the People's Republic of China on the Protection of Cultural Relics*¡, published in 1982. It indicated that a culture-centred cultural heritage protection system had been formed. Two legal regulations, mentioned in the version of the ¡*Law of the People's Republic of China on the Protection of Cultural Relics*¡ which was released in 2002, were mainly focused on the following two aspects: firstly, neoteric and modern important historical sites; objects; representative buildings associated with major historical events, revolutionary movements or famous people and completed with important commemorative, educational meaning or historical value, were protected by the State; secondly, the government at or above the county level, which is in charge of the famous historic and cultural city, historic and cultural streets, villages and small towns, should organize specialized protection in their planning, and ensure that these cultural elements are integrated into overall urban planning.

These regulations indicate that a multi-level protection system for single artefacts, historical sites and historical and cultural cities has been established in China. The heritage conservation policies in the ¡*Law of the People's Republic of China on the*

Protection of Cultural Relics¡ are described as: ¡protection-based, rescue first, rational utilization, strengthen management¡ (NPCSCC, 2002).

Based on the scope of conservation, the protection of cultural heritage can be divided into three levels: point, line and surface. Points represent ancient tombs; ancient buildings, grottoes; rock carvings; murals; modern historical sites, and representative buildings. The ¡*Law of the People's Republic of China on the Protection of Cultural Relics*¡ stipulated that they should be defined as different levels of ¡historical and cultural relics¡ according to their historical, scientific or artistic value. Heritage is the common name, and ¡historical and cultural relics¡ is the name which is protected by law. Lines represent those characteristics of neighbourhoods, buildings, towns and villages in which the cultural relics and historic sites are centralized, or which, in their traditional features, completely reflect a unique period. Surface represents the overall style and features of a historic and cultural city (Chen, 2009, 16).

2.3 Different meaning of ¡Urban villages¡ both in China and the UK

Urban village in China is usually surrounded by urban built-up area. Some scholars introduced it as ¡urbanized villages¡ or ¡villages within the city¡, or in Chinese ¡城中村¡ to avoid the confusion with the concept of ¡urban village¡ in UK. Indeed the differences between these two concepts exist in many ways, but some similarities can be found by scrutinizing.

2.3.1 Urban Villages in China

There are many definitions of urban village in domestic China. Different perspectives came out various definitions and understandings.

In the Journal of ¡*Urban and Rural Construction*¡, Yang described the visual appearace of urban villages: ¡In bustling cities, modern grandiose new constructed buildings arranged on both sides of the road. But the disordered cottages mixed with old and new existed behind those thriving constructions¡ (Yang, 1996, p.30). These old villages were surrounded by a modern city. The intended image of a real village should be that of houses surrounded by fields and filled with a local flavour and rural scenery. However, the urban villages in China appeared to be like a farmhouse surrounded by modern high-rise buildings and the image was filled with disharmony (**Fig. 2.3**). The real scene in the urban villages of China showed no reasoned layout between the buildings, and a lack of open space. Due to the lack of supporting service facilities, dirty waste water could be seen flowing everywhere in the narrow streets, and the classification and collection of waste has still not been effectively solved. The common external image of most urban villages in China was totally different from the view of rural countryside which we usually imagine with open green farm land and fresh air.

Li (2002) described the urban villages of China in his paper ¡*The end of village----the research of urban village in China*¡: ¡In the central modern city, between the new constructed high-rise buildings, each urban village stands like huge concrete groups of buildings which are all up to 20 meters high.¡ Some 1.5-2 metre-wide streets, which were divided by original homesteads, were arranged among buildings with an average of 8 floors. The villagers themselves were widening their floor area in order to increase their living space. Because the space between buildings was getting more and more enclosed as a result of the villagers¡ self-build projects, the buildings in urban villages were described as ¡handshaking buildings¡ and ¡kissing buildings¡ (**Fig. 2.4**). Be located at this disordered and narrow areas in the urban villages, the individual buildings have lost their aesthetic significance, and a decent living environment has already become a luxury commodity for current residents.

Fig. 2.3 Sun, Y. Z (n.d.) Urban villages in city of Guang Zhou [online image] Available at : < http://www.panoramio.com/photo/36956071> [Accessed 15 August 2011]

The ¡*Report of urban villages---- Measures of urbanization in rural areas in the central city of economically developed areas*¡ from ¡*Urban planning*¡ pointed out that:

> Urban village in China means the rapid urbanization, rapid expansion of urban land which encircled the villages and the farmland inside, and most of the farm land turning into the state-owned sector from the collectively

owned sector in economically developed regions of China. But the returning lands maintained the characteristics of the collectively owned sector, like homestead, private plots of cropland. The urban village which formed with a primarily residential function on these sites is the one we discussed in the paper.
(Dong, 1999, p.9)

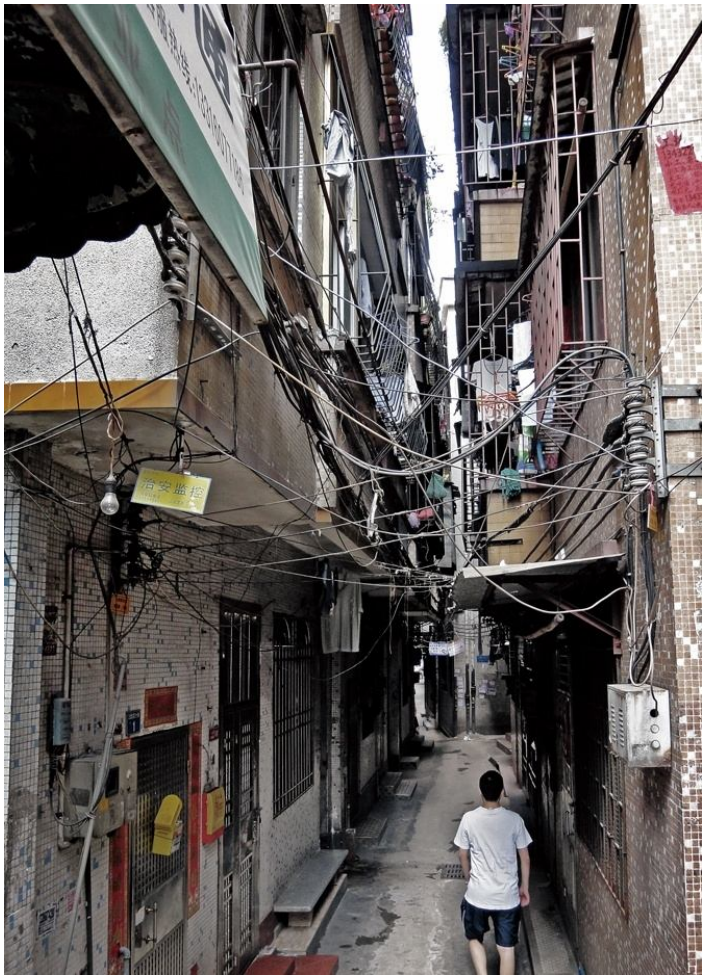


Fig. 2.4 Liu, Y (2011) Urban villages in city of Guang Zhou [online image] Available at : <http://travel.fengniao.com/224/2249856.html > [Accessed 20 August 2011]

¡*Renovation of urban villages in China*¡ points out that: ¡urban village is the village which is located in an urban planning area or urban-rural fringe zone, surrounded or semi-enclosed by a built-up area of city and having little or even no agricultural land in it¡ (Li, 2004, p.90). This definition explains the land relationship between urban villages and the city, and meanwhile it also explains why there is a huge gap between the development of urban villages and that of the city.

Tan and He (2002) pointed out in their paper ¡*Special attention to urban village, a dead space of urbanization*¡ on ¡*Economic Daily News*¡: ¡The urban village is in a built-up area containing a rural community which is still maintained by the

collectively owned sector and some of the management system of rural areas. The urban village is a product of urbanization and its emergence is inevitable.¡ This definition demonstrates that the root reason for the formation of urban villages is the dual urban-rural economic and social management system in China, and this makes the emergence of urban villages become inevitable.

The phenomenon of the urban village became widespread during the urbanization of major cities of China. The reasons for the formation of urban villages were different in different cities, and the existing customs were diversified. The existence and development of villages brought a great negative influence to the society and became an obstacle during the process of urbanization. For all these reasons, the urban village has become a social issue which has attracted lots of attention of scholars from many academic fields.

2.3.2 The concept of ¡Urban Villages¡ in the UK

Urban villages in China seem to be an inevitable product of the process of urbanization. With the large amount of urban village renovation which has proceeded in recent years, an increasing number of people believe that urban village renovation is the way to improve a city¡s image and regional economy, and a large number of stakeholders will even receive private profits through the implementation of the projects. As with similar processes of demolition and construction projects in the UK, issues related to the economy, environment and society have been closely considered during the process of reconstruction, and information has been included in the new name of ¡Urban Villages¡. By studying the concept of the ¡Urban Village¡ in the UK, and observing the urban villages in China, the differences and similarities between these two concepts need to be pointed out in order to approach solutions for the urban village renovation projects in China.

¡The concept of the ¡Urban Village¡ was developed as an important and viable approach to creating successful and long-lasting neighbourhoods in the late 1980s¡ (Neal, 2003, p.2). It has provided some of the most popular places to live and also provided vitality and proximity to many of the amenities necessary for everyday life, and such attractive and integrated urban environments have been created by choice, by sound design and by efficient organization. At the very beginning of the emergence of the concept of the ¡Urban Village¡, some controversies arose and people did not understand why and how urban areas and villages could be integrated together. Reviewing the common definitions from urban critics, it is clear that the villages contain a type of metropolitan code which can effectively guide urban development. Consequently, if there are no life-enhancing qualities of communal identification and neighbourliness which are provided by the village, the city could not be created (Peter Neal, 2003, p.3). Some new planned developments, led by a number of prominent and familiar philanthropists and utopian thinkers, have clearly influenced the form and architectural vocabulary of current urban neighbourhoods. One of the most significant

influences on urban villages has been attributed to the Garden City Movement at the turn of the twentieth century, which was spearheaded by Ebenezer Howard. It stimulated numerous urban programmes in Britain and abroad and directly contributed to the creation of the town and country planning profession. The movement also promoted the social and physical morphology of original villages into a new typified geography of semi-urban and suburban areas.

The ideas of the urban commentator Jane Jacobs (1992) are widely regarded as having had the largest influence on the urban village concept. Jacobs rejected the modernist views that dominated urban planning and architecture in the 1950s-60s, and constructed an alternative philosophy that valued traditional neighbourhoods and the role of the inner city. Jane Jacobs was famous for telling the truth about what people really wanted to say, and how they felt about their city and community, in her a well-known work ¡*The Death and Life of Great American Cities*¡ (1992). Urban residents need basic rights of privacy, but they also need to be connected with others around them, to feel a sense of fun in their life, and to help each other. Jane Jacobs considered that a good community needs a great balance between ¡right of privacy¡ and ¡connection with each other¡. This complexity is the most important feature in a community. In that case, a good community should have some prerequisites as follows:

¡It should be able to have several primary functions;
¡Most streets should be short and it should be easy to get to everywhere;
¡Housing should be a mix of different buildings, new ones and old ones;
¡ Population density should be maintained.
(Jacobs, 1992)

Another strong impetus for urban villages has been the growing disenchantment with the urban sprawl that has characterized the development of many cities since World War II. Urban villages are seen to create self-contained communities that reduce the need to travel large distances and reduce the subsequent reliance on the use of private cars. Through more consolidated development, urban villages can reduce the intrusion of urban growth on the countryside. The environmental consequences of urban sprawl have come to dominate discussions promoting urban villages in recent years.

Urban villages are widely seen to provide a solution to the demise of community that is often associated with modernism and sprawl. The concept uses the social and physical morphology of the traditional rural village as an inspiration for creating better functioning communities. The urban village movement has been influenced by Ebenezer Howard¡s Garden City ideals, which also emphasize environmental determinism in relation to community. Urban design techniques such as public space and pedestrianization are employed to facilitate the development of community by encouraging human interaction.

The Urban Village Group published the first edition of ¡*Urban Villages*¡ report in 1992. It presented information regarding urban codes and estate management, and it offered a case study called Greenville which embodied the key principles of the Urban Village concept. These principles were summarized by Peter Neal in his paper ¡*An urban village primer*¡ as follows:

· a development of adequate size, or critical mass;
· a walkable and pedestrian-friendly environment;
· a good mix of uses and good opportunities for employment;
· a varied architecture and a sustainable urban form;
· mixed tenure for both housing and employment uses;
· provision of basic shopping, health and educational needs;
· a degree of self-sufficiency.
(Neal, 2003, p.11)

Following the concept and characteristics of ¡Urban Villages¡ mentioned above, it is clear that the medium density development, mixed-use zoning, easy-walking and cycling distance, flourishing neighbourhood, good public transit, appropriate landscaping, various job opportunities, life necessary facilities, an emphasis on urban design, particularly in public space and pedestrianization are the most important urban village code in a viable and flourishing community. The idea of the ¡Urban Village¡ concept is to reduce car reliance and to promote cycling, walking and transit use, to provide a high level of self-sufficiency (Aldous, 1992, p.12). The typical characteristics of the ¡Urban Villages¡ concept in the UK give us some beautiful images, which connected with traditional Chinese country life. As the old saying goes in Kunming city, ¡street with street, lane with lane; doors are closed, and make us like a whole family.¡ It describes the harmonious neighbourhood that we are always striving to achieve.

2.3.3 Comparative studies of urban villages in China and the UK

Urban villages in China have been formed for different reasons as those created in the UK. These are two concepts although there are common characters. The urban village concept in the UK can provide certain guides for urban planning re-design and renovation projects for cities in China which always appeared as mass demolition and constructions. Urban village renovation projects implemented in Chinese cities have made substantial contributions. These will improve urban functions and sustain part of local original residents who hope to live in the original places. However, intangible factors rooted in original villages, such as neighborhood and social relations, have been broken down through the current renovation projects. According to the reviews of urban village concept in the UK, taking renaissance of neighborhood as the main target of the concept may have a great potential of providing considered aspects as suggestions to the urban planning re-design and renovation projects implemented in Chinese cities.

Table 2.5 Existing urban villages formed as the results of urban sprawl

	Urban Village in China	Urban Village concept in the UK
Period	Started in late 1980s, large amounts of urban villages in China have been formed in the next 30 years of China¡s reform and opening-up.	Appeared in Britain in late 1980s with the establishment of Urban Village Group.
Definitions and reasons	1. Urban villages in China is a product of urbanization; (Tan & He, 2002, p.3) 2. Rapid urbanization, rapid expansion of urban land encircled the villages and the farmland inside, and most of the farm land turning into the state-owned sector in economically developed regions of China;(Dong, 1999, p.9) 3. Old villages were surrounded by modern city; (Yang, 1996, p.30) 4. ¡Concrete groups¡ (metaphor of multi-story building in urban village of China) with all up to 20 meters high standing between central modern city;(Li, 2002, p.168)	1. Developed as an important and viable approach to creating successful and long-lasting neighborhoods in the late 1980s. (Neal, 2003, p.2) 2. A mixed-use neighborhoods within a wider urban area; (Urban Village Group, 1992, p.29) 3. Urban villages in the UK developed as a typical urban renewal concept which replies to the energy consumption, urban pollution, social segregation and other social issues accompanied by urban sprawl in the UK.
Features	1. Losing the natural texture of original villages by constructing ¡extra space for living¡ without any order, there is huge conflict of layout and spatial structure between urban villages and surrounded urban built-up area; 2. Massive self-built living space had serious implications for land use and building density in urban villages where they are out of urban planning administration, and also lacking of municipal infrastructure and green landscape; 3. Combined migrant workers and local residents, which formed a ¡independent sociation¡ with	The urban village concept in the UK can deal with spatial problems by providing advices as follows: 1. Small enough for any place within it to be in easy walking distance of any other; 2. Small enough for people to know each other and to have that working basis of common experience and common assumptions which gives strength to a community; 3. Large enough to support a wide range of activities and facilities;

	complicated employment relationship, urban villages are forming a sub-community where is full of complicated peace order; 4. Disordered land use in urban villages give rise to functional conflicts; (for instance, semiworks, craft workshop, storage and residential building gathered in urban village, the layout of land use was in chaos) 5. Urban villages is lacking of planning control and all the construction projects are still stay in a unprompted condition, which means capability of disaster prevention in urban villages are weak and full of hidden trouble; 6. Excessive migrant workers paid the rent for basic living conditions in urban villages. For the nature of ¡floating¡, they would not enhance the consumption demand and also the chance for stimulating their own business, which means urban villages have no strength to sustain itself. (UVRLGK, 2008)	4. Big enough, stand up for itself if its interests come under threat; 5. Having a combined resident and working population of perhaps 3,000-5,000; (Urban Village Group, 1992, p.30)
Roles	¡ Buffer zone¡ of combining different life style and cultural background of people who are moving from rural to urban area, which is also an ideal place to accommodate them with applying low-cost living environment. (Long, D.L, 2010)	Urban Village concept in the UK as an alternative communities from the metropolitan cities, appeared as small villages where apply friendly neighborhood and achieve a degree of self-sustainable.
Provide to residents	1. Low-rent house for migrant workers; 2. Not more but stable income for landless farmers; 3. Low living cost for migrant workers;	The UK concept can advise on the following aspects: 1. The range of uses must be mixed within street blocks as well as within the village as a whole, and balance houses and

	4. Basic amenities for daily use; 5. Providing number of job opportunities for local residents; 6. Basic needs of living for low income residents; (Chen, J. 2010, p. 45)	flats against workplace so as to achieve a theoretical 1:1 ratio between jobs and residents able and willing to work; 2. It provides an admirable environment for the increasing number who work from home, and should include buildings which facilitate this; 3. To ensure a pedestrian-friendly environment, the urban village must cater for the car without encouraging its use; (Urban Village Group, 1992, p.30) 4. It provides most popular places to live; 5. It provides amenities which are necessary for everyday life; (Neal, 2003, p.3)

The comparative study of urban village both in China and the UK was divided into two tables. The first one made the comparison of the concepts of urban village both in China and the UK with five indicators that represent as Definition, Features, Roles, Provide to residents.

Urban villages in China, as ramification of urbanization with characteristic institutional background, formed gradually communities that offer low-rent house for migrant workers with rapid economic development. Different from the formation of urban villages in China, urban village in the UK developed as a typical urban renewal concept which replies to the energy consumption, urban pollution, social segregation and other social issues accompanied by urban sprawl in the UK.

Covered by disordered self-construction and low-standard living environment, a certain group of people-migrant workers, local residents, landless farmers, workers with low-income level, do feel a degree of sense of belonging and community spirit in urban villages in China. Compared with urban village in China, the degree of sense of belonging and community spirit is main village codes that adopted by urban village renovation projects to emphasize the purpose of the regression of neighbourhood as the one that was discussed in the UK.

At the perspective of main contributions to the society and our living environment, urban villages both in China and the UK assumed different missions. Urban villages

in China provided a quantity of low-rent housing, which appeared as a ¡buffer zone¡ to alleviate the cultural conflict or social segregation caused by combining different life style and cultural background of people who are moving from rural to urban area. Urban village concept in the UK attempted to have beneficial and lasting impact on the nature of the future built environment, which means it puts active attitude on correcting current urban problems that focused on energy consumption and urban pollution during the urban renewal.

In terms of main service object, and based on the different sources of housing supply, urban villages in China accommodate a certain group of people who cannot afford high-rent house with relatively better living environment; however, urban villages of the UK appeared as an open community, which will welcome all the people from different social classes to live here upon their choices.

Table 2.6 Renovation projects for new urban villages

	Urban Village renovation project in China	Urban Village concept in the UK
Differences	1. Scale: cannot be designed and the sizes of the villages are varied according to the scale of original villages; 2. Population: through reviewing the proportion of residential housing in urban village renovation project, population there should combine new residents from other areas of the city and original residents of the villages; and the size of population determined by decisions made in pre-planning stage; 3. Residents: New residents from other areas of city; Migrant workers; Local residents; Landless farmers; Workers with low-income level; And all the residents here can be families or single people.	1. Scale: Ideal size of urban village in the UK would be no more than 100acres (40 hectares); 2. Population: combined resident and working population of perhaps 3,000-5,000; 3. Residents: Urban villages give a cross-section of people-families and single people of different ages-the chance to live there if they choose to. (Urban Village Group, 1992, p.17)

	4. Business: normally introducing large-scale commercial facilities and anchor store; 5. Car use: improving the current conditions of public transport alternative to private car use; ensuring every family has a underground car parking space in new residential area; adoption of pedestrian system separated from vehicle system, and all the car parking should be underground ; (followed by the regulations in current ¡PATRK¡)	4. Business: mixed-use developments-with home, shops, cafes and bars, offices, studios, workshops, and accommodation for light or service industry; (Urban Village Group, 1992, p. 28) 5. Car use: offering attractive efficient public transport alternatives to private car use; ensuring pedestrian-friendly environment to limit the car use;
Targets	Optimize urban spatial layout; Consummate urban function; Improve the living standard and environment of local residents;; Enhance the utilization of urban land; Eliminate potential safety hazard after urban village renovation project; (UVRLGK, 2008)	Mixed-use development, with offering attractive efficient public transport alternatives to private car use; For rebuilding community spirit as the purpose of emphasizing the regression of neighbourhood; (Urban Village Group, 1992)
Source of Capital	Introducing developers and funds for renovation project through the operation of market; (UVRLGK, 2008)	Government, investment from private business, funding from social public welfare; (Urban Village Group, 1992)
Principles	1. A concept which developed for human needs and relied on human; 2. To upgrade the comprehensive urban function; 3. To improve urban landscape and living environment; 4. To improve efficiency of land	1. A development of adequate size, or critical mass; 2. A walkable and pedestrian-friendly environment; 3. A good mix of uses and good opportunities for employment; 4. A varied architecture and a

	utilization; 5. Begin to develop the urban village renovation project by adopting various approaches, aim to satisfy all the stakeholder who will be involved during the project; 6. A degree of self-sufficiency; (UVRLGK, 2008)	sustainable urban form; 5. Mixed tenure for both housing and employment uses; 6. Provision of basic shopping, health and educational needs; 7. A degree of self-sufficiency. (Neal, 2003, p.11)

For the table 2.6, as comparison of urban village project implemented both in China and the UK, four main indicators- differences, targets, source of capital and principles, represent basic standards of implementation of the project.

Based on the survey and the relevant studies, there are five aspects- scale, population, business, car use and residents, shown differences between urban village projects implemented in China and the UK. The scale of urban village renovation projects in China depends on the scale of original village. Normally neighboring communities in urban villages will be developed within one project, which means the scale of urban village renovation project cannot be designed and should obey the local conditions. Thinking of the population composition, population in urban village of the UK is more diverse because it appeared as an open community where all the people are welcome to move in. The new residential area, which is developed by urban villages in Chinese cities with the responsibilities to accommodate the certain groups of people, combined with new residents from other areas of city who choose to live here, and original residents of the villages who have to stay in old place. It will be easily observed by reviewing the proportion of residential housing in the project. In terms of business forms, large-scale commercial facilities as the popular form are introduced by urban village renovation project in Chinese cities by the name of promoting the development of the regional economy. After negotiations among developers, governments and stakeholders, a good number of job opportunities will be available to original residents. But due to the different degrees of development between rural and urban as well as the educational level of people between villages and cities is quite diverse, whether they are qualified to the new job or whether they can adapt the new way of working would be the problem in the future development of this new residential area. Furthermore, original residents in villages do need a process of adapting the living and working environment which will become a huge challenge for those who live in the modern city area. Developed by the characters from village itself in the UK, ¡boost the local economy¡, ¡create a high-quality environment where people can live, work and enjoy leisure activities¡ (Yorkshire Post, 2007) are the main targets of Chesterfield Waterside Urban Village Project; and in the project of Holbeck Urban Village, the architects put the strength on ¡the ability of the designs to reflect the historical character and diversity of the area¡ (Kathryn Moore, 2006). For people who settled down in the urban village of the UK, mixed-use development provides different kinds of jobs as well as life style, and environment would not change with

huge differences. Compared with addressing to offer attractive efficient public transport alternatives to private car use and easy walking distance in the urban village in the UK, taking project in Kunming as an example, development of public transport is one of the main targets of urban renewal projects. But considering that usually people need to drive long way to get to the work place in most of Chinese cities, especially big cities, shortage of car parking spaces has always been a big issue for them. Followed the ¡Planning Administration and Technical Regulation of Kunming¡, every family should be ensured a underground car parking space in new residential area, and for supplying pedestrian-friendly environment, all the parking space should be underground. In order to balance the mixed problems, the way of thinking and solving urban problems should be localized.

Due to the different level of urbanization, urban villages both in China and the UK are different in terms of development of targets. According to the investigation of status quo of current urban problems in Chinese urban villages, numbers of physical facilities conditions that are related to the daily life of residents have been set as main targets that should be achieved during the urban village renovation projects. However, investigating the villages outside the urban area, the urban village Group in the UK considered that mixed-use development, offering attractive efficient public transport alternatives to private car use, and rebuilding community spirit as the purpose of emphasizing the regression of neighbourhood are the main targets during the urban villages project, while other physical facilities conditions have been fully satisfied with high standards.

Most of urban village projects in China were carried out as introducing developers with funds in the way of market-oriented mode. Source of capital of urban village project in the UK came from Government, investment from private business, and funding from social public welfare.

Principles of urban village project both in China and the UK, played as a decisive role which determined the direction of their development and implementation details. Urban village renovation project in China, which the principles considered from the macroscopic perspective, will put more attention on adjusting and completing urban function, aim to meet all the basic need of local residents, and also try to balance the profits of relative stakeholders. However, urban village project implemented in the UK are more concerned with the internal functions in the communities, which involved detailed design, capacity control, mixed-use development, the use of old but potential buildings, job opportunities for local residents and urban facilities for daily use. Take the urban village project of Bordesley (Chen, X.F & Liu, G.Y, 2008, p. 72) in south Birmingham as an example, there are design suggestions available at the early planning stage: 1. urban layout: reduce of mixed-use between residential area and industry area; 2. housing supply: repair existing housing and also develop number of new housing for sale and lease with a comfortable and acceptable standard; and at the same time, promote the population from 1,000 to 3,000 in the area; 3.

transportation: to improve the current state of the roads; 4. public amenities: mixed-use development of amenities for daily use, and gathering the amenities, service and usage together; 5. public space: improve the current public space; maximize the potential of current canal area, green open space and street landscape in central city; 6. place shaping: achieve a degree of self-sufficiency, and improve the image of Bordesley with its own characteristics. This project achieved most of the planning concepts, but it still has some limitations after the development (Chen, X.F & Liu, G.Y, 2008, p. 73), such as the comparative high building density, lack of walkable and pedestrian-friendly environment due to the existing limitation of site, and also lack of own particular styles apart from the plain signs of the village. Therefore, urban village concept as an alternative design guide principle does provide a positive attitude to implement an urban renewal project. However, because of the different status in each place, considerable discrepancy does exist between pre-design targets and final outcome. Decisions for design concept should consider the local conditions to regularize each aspect, and emphasizes of design concept could be flexibility in different projects and places.

Considering with different level of urbanization between cities in China and the UK, difference regarding views, decision-making and perspective of solving problems are understandable. Additionally, after the comparative study, it will be readily seen that for rebuilding community spirit as the purpose of emphasizing the renaissance of neighbourhood as one of the main targets of urban village in the UK happens to have the same views of building strong geography and neighbour relationship as Chinese traditional culture. Moreover, issues of social, culture, tradition and modern, urban form, and relationship between cities and architecture should be considered in details while implementing the mass-demolition and mass-construction during the urban village renovation project in China. Urban village concept in the UK can be adopted as a source of reference during the urban village renovation project implemented in Chinese cities.

2.4 Sustainable architecture

Sustainable design demonstrated the demand that it should balance the relationship between human needs and environment, social and ecological issues. The aim of sustainable design is minimizing the influence of construction on environment, and the consumption and waste of energy. The ideal situation of sustainable design should be obtained the building materials locally as far as possible, minimized the influences coursed by construction on environment by using the renewable resources and high-tech design methods. On the other hand, a mature assessment system will lead the construction project to a sustainable direction at the early stage of planning.

2.4.1 General concept of sustainable architecture

Sustainable architecture requires the designer to create a space that more sustainable,

especially for the residential architecture. To begin with, we must first explore what sustainable is and in what way it pertains to architecture. Cambridge Dictionary defines sustainability as:

¡Able to continue over a period of time;¡
¡Causing little or no damage to the environment and therefore able to continue for a long time.¡

According to explanations from various sources, there is a common definition of sustainable architecture. Generally speaking, the concept of sustainable architecture is the pursuit of reducing environmental load, building a relationship between architecture and environment, and being conducive to residents¡ health. The aim of sustainable architecture is to reduce energy use and pollution; to conserve water; to protect the environment and ecological structures; to increase productivity and to provide a favourable environment for future generations.

Architecture has become the target of specific strategies, as the building industry consumes one-sixth of the world¡s fresh water supply, one-quarter of its wood harvest and two-fifths of its fossil fuels and manufactured materials (WINES, & JODIDIO, 2000). In 1892, John Muir wrote to the editor of ¡*Century Magazine*¡, ¡Let us do something to make the mountains glad.¡ Though the arguments in favour of ecological thinking are often couched in scientific terms, the basic impetus remains as Muir stated it: ¡When we try to pick out anything by itself, we find it hitched to everything in the universe.¡ Sir Norman Foster suggested in a talk at the Conference for Solar Energy in Architecture in 1993 in Florence, architecture¡s relationship to sustainability is seen as inevitable and ¡not about fashion but about survival¡ (Behling, 1996, p.8). Norman Foster also announced a series of principles with the aim of redefining architecture and urban planning for the future, and in Foster¡s opinion this aim can be met by architects as they have the knowledge and skills to create coherence between climate, resources and place in ways in which ¡maximum benefit could be obtained by minimum resources¡ (Behling, 1996, p.9).

From R. Buckminster Fuller¡s principle ¡More with Less¡ (BFI, 2010) to Sir Norman Foster¡s opinion ¡Maximum benefit could be obtained by minimum resources¡ (Behling, 1996, p.9), it is far more clear that the way of sustainable architecture is: make a full use of limited material resources, against the high energy consumption and encourage the use of renewable resources. Related to the sustainable development of urban villages in the UK, code of Sustainable Home and BREEAM for Community as the implementation methods and assessment criteria will be discussed to represent the progress of sustainable development in the UK.

2.4.2 Code for sustainable homes

The Code for Sustainable Homes is a new national standard to lead industry in the

design and construction of sustainable homes. It aims to minimize carbon emissions and create sustainable homes during the construction process. Compliance with the Code is voluntary, but planners are encouraged to follow the Code principles set out in the publication in the short-term, because the government is considering making assessment under Code¡s standards mandatory in the future (GREAT BRITAIN. DEPT. FOR, C. & LOCAL, G. 2006, p4). A set of sustainable design principles measure the sustainability of homes against nine design categories. They cover: Energy/$CO_{2;}$ Water; Materials; Surface Water Runoff (flooding and flood prevention); Waste; Pollution; Health and Well-being; Management, and Ecology.

Four benefits were summarized in the publication of ¡*GREAT BRITAIN. DEPT. FOR, C. & LOCAL, G. in 2006*¡, with the report ¡*Code for Sustainable Homes - A step-change in sustainable home building practice*¡. The benefits covered environment, home builders, social housing providers and consumers. Each benefit was detailed as follows:

Benefits for the environment:

·**Reduced greenhouse gas emissions**: With minimum standards for energy efficiency at each level of the Code, there will be a reduction in greenhouse gas emissions to the environment. This will enable us to reduce the threat from climate change.

·**Better adaptation to climate change**: The Building Regulations (Approved Document L ¨ 2006) already limit the effects of solar gains in Summer. With minimum standards for water efficiency at each level of the Code, and other measures in the Code, including better management of surface water run-off, our future housing stock will be better adapted to cope with the impacts of climate change which are already inevitable.

·**Reduced impact on the environment overall**: Inclusion of measures which, for example, promote the use of less polluting materials, and encourage household recycling, will ensure that our future housing stock has fewer negative impacts overall on the environment.

Benefits for home builders:

·**A mark of quality:** Increasing media attention and public concern over environmental issues, notably climate change, has given rise to a growing appetite among consumers for more sustainable products and services. The Code for Sustainable Homes can be used by home builders to demonstrate the sustainability performance of their homes, and to differentiate themselves from their competitors.

·**Regulatory certainty:** The levels of performance for energy efficiency indicate the future direction of building regulations, bringing greater

regulatory certainty for home builders, and acting as a guide to support effective business and investment planning.

·**Flexibility:** The Code is based on performance which means it sets levels for sustainability performance against each element but does not prescribe how to achieve each level. Home builders can innovate to find cost-effective solutions to meet and exceed minimum requirements.

Benefits for social housing providers:
·**Lower running costs:** Homes built to Code standard will have lower running costs through greater energy and water efficiency than homes not built to the Code standard, so helping to reduce fuel poverty.

·**Improved comfort and satisfaction:** Homes built to the Code will enhance the comfort and satisfaction of tenants. Costs may be saved in dealing with complaints.

·**Raised sustainability credentials:** The Code will enable social housing providers to demonstrate their sustainability credentials to the public, tenants and funding bodies.

Benefits for consumers:
·**Assisting choice:** The Code will provide valuable information to homebuyers on the sustainability performance of different homes, assisting them in their choice of a new home.

·**Reducing environmental ¡footprint¡:** By asking for a new home which meets the Code standard, consumers will be able to encourage industry to build more sustainable homes, and reduce their own ¡footprint¡ on the environment.

·**Lower running costs:** Homes built to Code standard will have lower running costs through greater energy and water efficiency than homes not built to the Code standard, so helping to reduce fuel poverty.

·**Improved well-being:** Homes built to Code standard will provide a more pleasant and healthy place to live, for example with more natural light, and adaptability for future needs.
(GREAT BRITAIN. DEPT. FOR, C. & LOCAL, G. 2006, pp. 12-13)

2.5 BREEAM for Communities

BREEAM of the UK is a green building assessment system which developed maturely of world wild. It tries to stimulate the market through certification and

evaluation system and label effect, and aimed to build a sustainability living environment. And it also consists of a series of rating system for range of building types. In addition, BREEAM for Communities helps planners and developers to improve, measure and independently certify the sustainability of project proposals at the planning stage of the development process, and will assess the whole development project with these eight sections as outlined in the ¡*Regional Sustainability Checklists*¡ ¨ they include:

¡Climate and Energy: addresses built form mitigation and adaptation issues;

Community: addresses consultation and local community involvement;

Place Shaping: addresses local area design and layout;

Transport: addresses sustainable transport options;

Resources: addresses sustainable use of resources;

Ecology: addresses protection of the ecological value of the site;

Business: addresses local and regional economic issues;

Buildings: addresses overall sustainability performance of buildings.¡
(BREEAM Communities, 2011, p.2)

The aims of BREEAM for Communities were updated in the year of 2011. The concept of BREEAM for communities is to achieve environmental, social and economic harmony with sustainable development. It focuses on the balance between the relationship of development and protection, and the determination of BREEAM for communities is minimizing the influence of environment during the development. Aims of BREEAM for Communities are listed as follows:

¡·To mitigate the impacts of development projects within the built environment.

·To enable development projects to be recognized according to their environmental, social and economic benefits to the local community.

·To provide a credible and holistic environmental, social and economic sustainability label for development projects in the built environment.

·To stimulate demand for sustainable development (and sustainable communities) within the built environment.

·To ensure the delivery of sustainable communities within the built

environment.¡
(BREEAM Communities, Technical Guidance Manual, 2011, p.17)

Core categories were detailed in the following eight aspects and a number of issues that must be met to confirm the targets have been achieved. The core categories and issues are listed as follows:

¡**Climate Change:** reducing the proposed project¡s contribution to climate change whilst ensuring that developments are appropriately adapted to the impacts of present and future climate change.¡
And the issues of this category covered following aspects:

¡·Flood management
·Energy and water efficiency
·Renewable energy
·Infrastructure
·Passive design principles.¡

¡**Resources**: designing for the efficient use of resources including water, materials and waste in construction, operation and demolition, and minimizing the life cycle impacts of materials chosen;¡
This category covers issues including:

¡·Land use and remediation
·Material selection
·Waste management
·Construction management
·Modern methods of construction.¡

¡**Transport:** addressing how people can get to the facilities and locations that they need; giving people choices other than private cars and encouraging walking and cycling for healthier lifestyles;¡
This category covers issues including:

¡·Walkable neighbourhoods
·Cycle networks
·Provision of public transport
·Green travel plans
·Construction transport.¡

¡**Ecology:** conserving the ecology living on and visiting the site and taking full opportunity for ecological enhancement within and around the development as well as on buildings.¡
This category covers issues including:

¡·Maintaining / enhancing habitat
·Green corridors
·Ground pollution
·Contaminated land
·Landscaping schemes.¡

¡**Business:** providing opportunities for businesses to locate to serve both the locality and provide jobs for people living in and around the development.¡
This category covers issues including:

¡·Inward investment
·Local employment
·Knowledge sharing
·Sustainable charters.¡

¡**Community:** designing the development to support a vibrant new community which can integrate with surrounding areas, avoiding creating actual or perceived ¡gated¡ communities.¡
This category covers issues including:

¡·Social impact assessment
·Community engagement
·Sustainable lifestyles
·Facilities management
·Mixed of use
·Affordable housing.¡

¡**Place shaping:** provide a framework for the design of a real place with an identity that ensures that people can instinctively find their way around. Also ensuring that the new development draws from local context and heritage.¡
This category covers issues including:

¡·Site selection
·Defensible space
·Active frontages
·Green space
·Secured by design
·Housing density.¡

¡**Buildings:** Ensuring that the design of individual buildings contribute to the sustainability of the overall development through high environmental standards.¡
This category covers issues including:

¡·BREEAM buildings
·Code for Sustainable Homes
·Building refurbishment.¡
(BREEAM Communities, Technical Guidance Manual, 2011, pp.22-24)

BREEAM for Communities has been developed as a marketing tool to attract potential clients and building occupants, and can also be applied to projects all over the world through the use of compliant assessment methodologies. With regard to the great number of urban renewal programmes implemented in China, the introduction of sustainable design and planning methods, as a means to review and improve the projects at the planning stage, is necessary and worth trying. However, there are gaps and cultural differences between the UK and China, which exist and cannot be ignored; therefore the implementation of BREEAM for community in China has to consider the current situations of different cities, and the process of assessment is likely to be partly changed during the project.

2.6 Summary

This chapter has focused on the main content of sustainable urban design; cultural preservation, and the different meanings of urban villages in the UK and China; sustainable architecture, and BREEAM for Community in the UK. It has outlined the achievements in sustainable development in the UK, which will provide a reference and guidance for the process of urban renewal in most cities in China. The phenomenon of lost culture as a result of urban renewal has given us a wake-up call to realize the importance of culture preservation during reconstruction projects. Furthermore, a number of current urban renewal programmes in the cities of China can be rethought as a result of understanding the aims and rating categories of BREEAM for Community, and improved in the early stages of the planning process. In the following chapter, the urban development of Kunming city will be discussed and summarized by understanding the process of urban development. Furthermore, the urban village, the unique phenomenon of urbanization in China, and the current situation of urban villages in Kunming will be discussed in great detail.

Part 2: Case studies and survey

Chapter 03: Historical review of urbanization in Kunming

Fig. 3.1 Panoramic views of Wen ming streets District [photograph] *In:* Xing, H. (1998) *Protection of historical and cultural city of Kunming¡ Research of Wen ming streets District* Yunnan: Authority of Mineral Resources of Yunnan, p.1

This chapter has focused on the process of urban development in Kunming. It has discussed the urban village, as a unique phenomenon of urbanization in China, by considering the two issues of reasons for formation, and the institutional background which led to the formation of urban villages in China. In addition, the similarities and influences between urban villages in China and slums in other developing countries have been studied and discussed. Furthermore, the current conditions of urban villages in Kunming have also been discussed in great detail, and materials relating to issues and policies of implementation of urban village renovation projects in Kunming have also been collected and discussed at the end of this chapter.

The discussions of this chapter have also been based on the status quo of urban villages in Kunming, approval procedures for the urban village renovation projects, and the compensation house policy currently implemented in Kunming. Therefore, this chapter has given a detailed historical background to the whole research programme, which may enable the next chapter to be more easily understood by readers.

3.1 Urban History of Kunming city

Situated in southwest of China, Kunming is a historical city with great potential of development (**Fig.3.2**). It is located on the northern lakeside of Dian Lake, which is in the central part of Yunnan province, and it is surrounded by hill on three sides and by water on the fourth side. Kunming is famous for its gentle climate which is not extreme hot in summer and not too cold in winter, flowers bloom luxuriantly, trees and grass are lush grown. Reputed as ¡spring city¡ and ¡flower metropolis¡, Kunming is a famous historical and cultural city and also a beautiful tourist city of China (Liu, 2002, p.1).

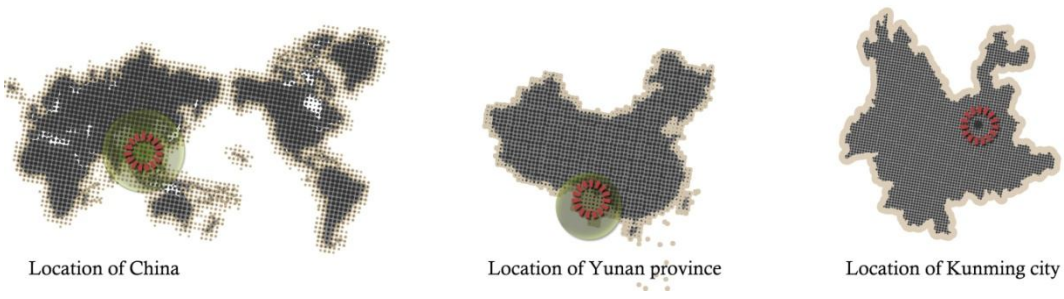


Fig. 3.2 Location of Kunming city, Yunan Province

About 2000 years ago, there was an ancient country along the Dian Lake. Sima Qian named it as ¡Dian¡ in ¡*Southwest Yi Historical Biography*¡, and ¡Dian¡ is now became abbreviation of Yunnan. Kunming was the birthplace of culture of Ancient Dian country, and its long-standing history could go back to 280 BC.

In the year of 765 AD, begin with the completion of east and west temple tower in the Tang Dynasty, the clear axis of city has been formed. This axis which has been formed over thousand years is the essence of urban layout and also the unique characteristic of urban landscape. The history of city founded of Kunming has been over 1200 years. Part of old town city area has still maintained the urban layout and cityscape of Ming and Qing dynasties (**Fig.3.3**). In the beginning of 1382 AD, Kunming was influenced by the trend of ¡ Gao zhu qiang, guang ji liang¡ which means to protect national interests as the main target and focus on the development of economic and technology. Kunming was moved 1 mile on the north and founded the new city. It separated urban area and countryside. During this period, the scale of Kunming city continued to expand and this period also became the upsurge of the city founded history. In the meanwhile, in order to combine with the geographical environment, Kunming city layout presents as a tortoise shape which was influenced by the art of geomantic omen. Kunming opened for business in the year of 1905 AD, and with the opening of the Dian Yue railway line in 1910 AD, modern western civilization was gradually introduced into this remote city from vietnam, and they were the signals of the beginning of modern construction of Kunming city. After the outbreak of the War of Resistance Against Japan (1937-1945), many factory, school, bank and commercial house moved to Kunming which was defined as the transportation transshipment hub and backup city. During this period, Kunming city expanded rapidly and continued to be prosperous for a long time. With the establishment of the P. R. China in the middle of 1950s-1960s, people were enthusiastic to build their own country. Kunming widened the urban road and built the top ten modern building. These were signals of the construction of Kunming city. Since the 90s of 20^{th} century, Kunming has held several domestic and regional pageants. Especially during the ¡99 Kunming International Horticultural Exposition held successfully, Kunming city developed rapidly and the new economical axis has been formed gradually.

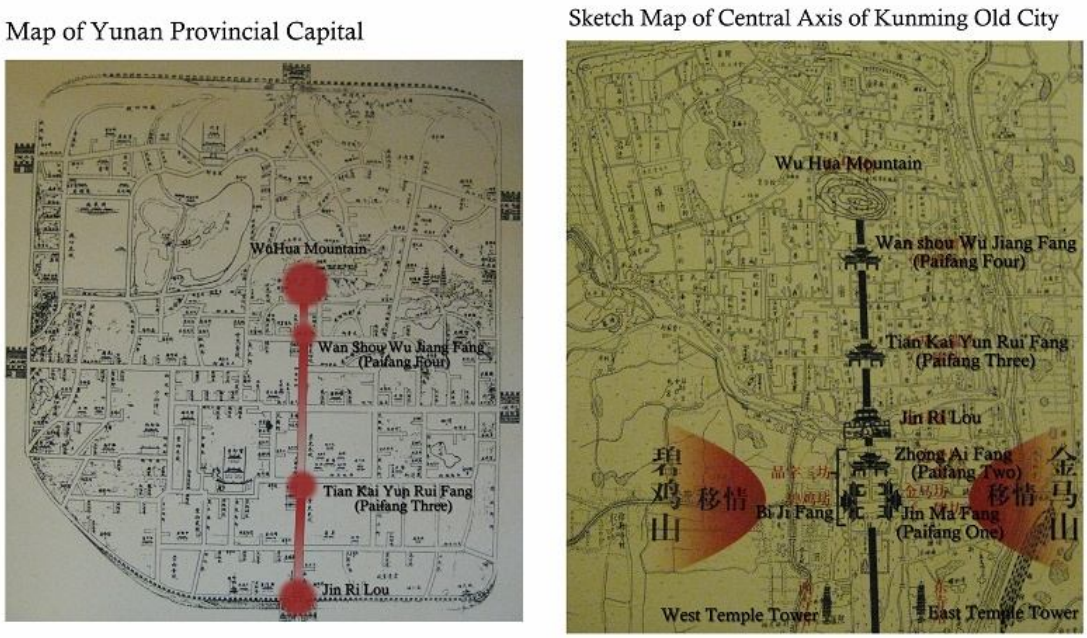


Fig. 3.3 Development of traditional axis of old Kunming city *In:* Liu Xue. (2002) *Spring City Kunming, The past, the present, and the future.* Kunming: Yunnan Fine Arts Publishing House, p.35, p.47

After almost 2000 years, Kunming has become the metropolis with millions of people of Yunnan province. With deep historical heritage, diverse culture, rich cultural landscape, a clear layout of the city and gentle climate, Kunming became one of the Historical and Cultural City which was first published by State Council (China) in the year of 1982.

3.2 Urbanization development of Kunming

The urbanization is a gathering process of population, property, capital and market of a country or region. Urbanization also means the expansion of urban land, and urban culture, urban lifestyles and sense of worth spread in rural areas. As a result and response of modern industrialized, modern urbanization can be also defined as the process that rural population transformed into urban population, traditional village society transformed into modern city society. (Zhao, 2008, p.111)

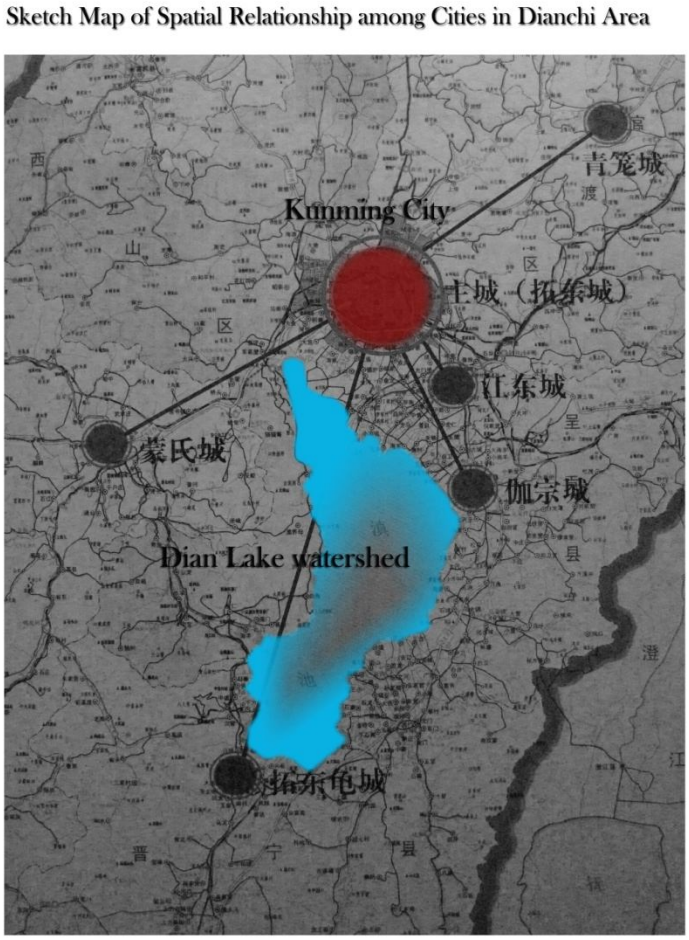


Fig. 3.4 Sketch Map of Spatial Relationship among Cities in Dianchi Area (Liu, 2002, p. 23)

In the Mid-18th century, Dian Lake watershed, where Kunming was located, was still a typical agricultural society. (**Fig. 3.4**). Although capitalism appeared in coastal cities of China, Kunming still maintained a countryside atmosphere. Qing Dynasty celebrity Ranweng Sun (孙髯翁) described Kunming in his famous ¡《大观楼长联》*(A Lengthened Couplet of Kunming Daguanlou Mansion)*¡ as ¡四围香稻，万顷晴沙，九夏芙蓉，三春杨柳¡, which means ¡the fragrant rice paddies and long sandy beaches all around，lotus flowers in full blossom in summer，and hanging willow branches greened with new sprouts in spring.¡ Meanwhile, industrialization had been growing rapidly in European countries, and most European countries had begun to enter a brand new era of urbanization. There was rapid development and greater changes had grown up than ever before.

In the 19th century, during the industrial revolution, European countries had begun to expand overseas with colonialism. Stimulated by the colonialism of these countries, and having started with coastal cities, some inland cities of the Asian continent then began to flourish in a divergent way. Although these cities were under a colonial or

semi-colonial situation, the introduction of modem industry had impacted on the national economy. It had accelerated social reform and differentiation, and produced a new bourgeoisie and proletariat. Due to the rise of these cities, many Asian countries had started their own urbanization. The unitary systems of feudal cities were gradually transforming into a dualistic structure combining both feudal and modern systems.

Since the 1990s, China has entered an accelerated period of urbanization. Under this megatrend, Kunming has gradually been urbanized. For historical reasons, the industrialization of modern Yunnan started the urbanization process passively, due to external forces (Zhao, 2008, p. 112).

During the outbreak of the (China's) War of Resistance against Japan (1937-1945), Kunming became a war zone because of its remote location. A number of schools and factories (Central Machine Factory, Central Power Plant, military optical factory, iron works), banks, commercial houses and refugees migrated to Kunming. The population of Kunming in 1937 was 140 thousand, and by 1945 it had grown to 250 thousand. (PDIK, 1995, p.3). The highway to Burma (length: 959 metres) was constructed in 1938, and ¡The Hump¡, which connected Kunming with India, made Kunming into a main thoroughfare for accepting international assistance and a transit depot for transporting materials across the whole country during the war. Influenced by the transport development, Kunming began to modernize rapidly, and this had a profound impact on the urban development of Kunming. From 1941 to 1942, the American Volunteer Group was organized by the United States government to aid China against Japan during the Second Sino-Japanese War. In the meantime, Beijing University, Tsinghua University and Nankai University - three well-known universities - moved to Kunming and formed the National Southwestern Associated University. A large number of well-known professors gathered in Kunming, which created a flourishing time for science and culture during the war years. Kunming, located in the Southwest of China, under the influence of the megatrend of China, began her own urbanization process (Yang, 2010).

At the beginning of the Second Sino-Japanese War, the process of urbanization in modern Yunnan declined rapidly due to the blocking of the Burma highway and the fall of western Yunnan. The rise of urbanization in modern Yunnan created a social economy which showed the typical characteristics of a dual structure: these characteristics appeared as: the co-existence of weak modern industrial areas and small-scale peasant farming; a strong contrast between the flourishing modern industrial and commercial city and the needy rural areas, and the co-existence of modern machine production and a large number of handicraft-based small businesses (Zhao, 2008, p.111). When a large number of factories and population left Kunming and moved back to other places in China, cities in the South West of China were stalled and falling into a decline after the Second Sino-Japanese War. ¡This kind of urban development, which was caused by a number of external factors, was lacking in

continuous power to urbanize.¡ (Wei, 2005, p.16). Furthermore, ¡Industrialization and railways in the 20th century changed the way of urbanization in China, but they did not completely change the urban-rural relations.¡ (Zhao, 2008, p.112)

In the following section, the urban development of Kunming will be discussed in details.

3.3 The development of city layout of Kunming

City axis of Kunming plays a central role in the flexible and diversiform space which can lead and organize the city layout and urban spatial form. The traditional central axis of Kunming city was an axis combining the essential section with non-essential part. It started from Wu Hua mountain and extended to the south. Along with the development of Kunming city, the axis layout still remained and continued to be strengthened. With the rapid development of economic and urbanization, spatial structure of Kunming city has changed a lot. A new city axis which started from Wu Hua mountain has formed gradually. Along with Beijing Road, this new city axis integrated the main function of a city, which contained main transport hub, administrative region, financial circles, cultural centers, tourist facilities and large scale eco-space. Compared with traditional city axis, the new economical axis strengthened the scale of main road and enhanced the urban functions. (**Fig. 3.5**)

The road layout of ancient Kunming city is very unique. It is closely related to the arrangements of important buildings. The important buildings were mostly arranged at the top of T-shape roads, and projected forward to make the roads formed like the shape of cup or bow. Take the surrounding layout of Shengli Hall for example, road layout was arranged like a wine-glasses. The layout of whole area appeared like a wine-glasses, curved road on the both sides of Shengli Hall and Yunrui north road were the bowl of wine-glasses, and the Yunrui park shaped as its base. This unique layout form which started from Shengli Hall to Yongdao street are well preserved at present. (**Fig. 3.6)**

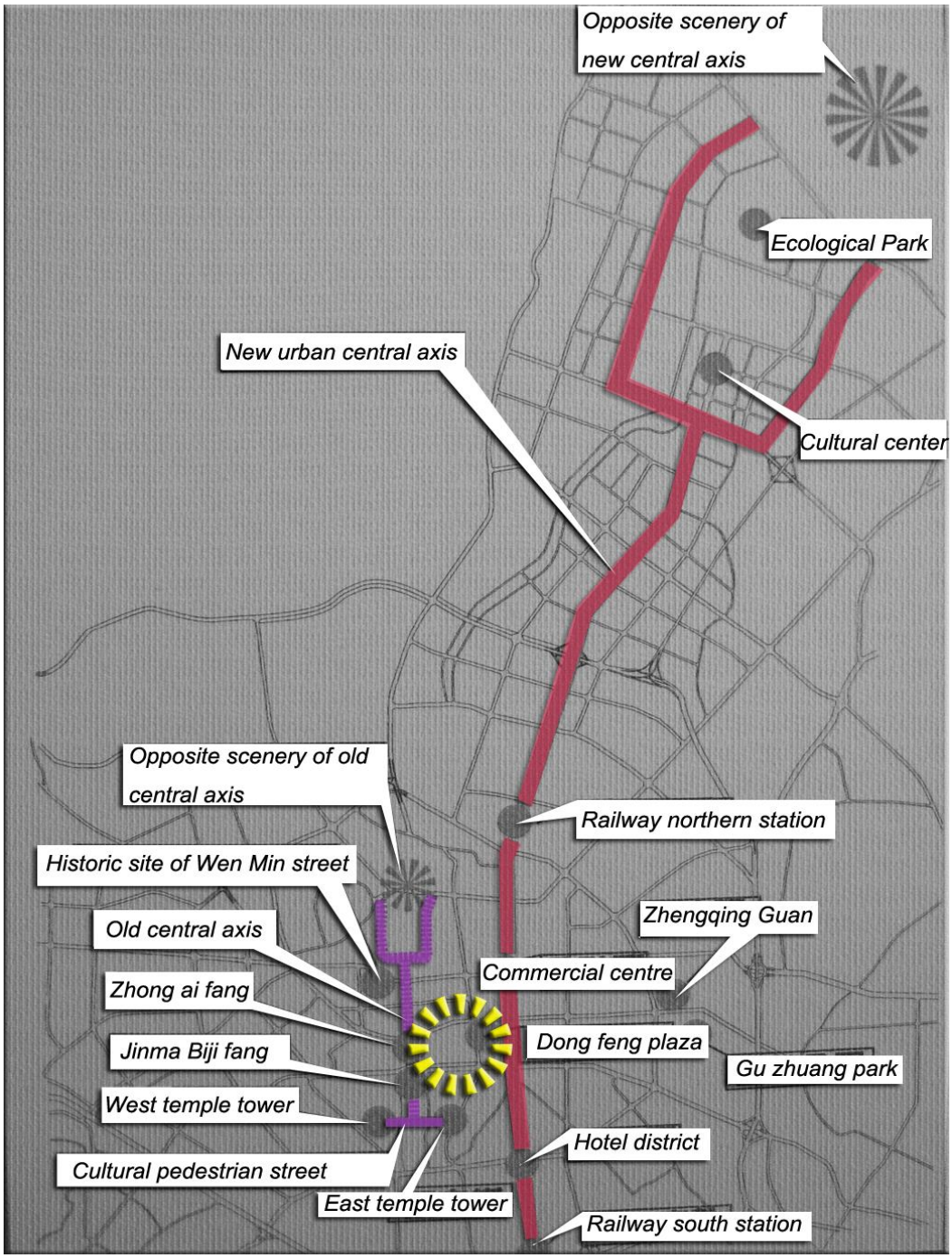


Fig. 3.5 Sketch Map of New and Old Central Axis in Kunming City (Liu, 2002, p.229)

Fig. 3.6 Analytical Map of Road¡s Characteristics of Kunming Ancient City (Liu, 2002, p.51)

In order to protect the traditional function division as the traditional culture, preliminary planning proposed a viewpoint in 1953: ¡Kunming is a city with long-standing history, hence the new urban district cannot locate on somewhere outside of the original city area. New urban districts should be developed and expanded on the basis of original city area.¡(Liu, 2002, p.134) Therefore, the development of urban modernization was based on the original city area, and started from the central city of Kunming, City Government of Kunming has implemented a three five-year plan (**Fig. 3.7**) which accelerated the pace of urban development of Kunming.

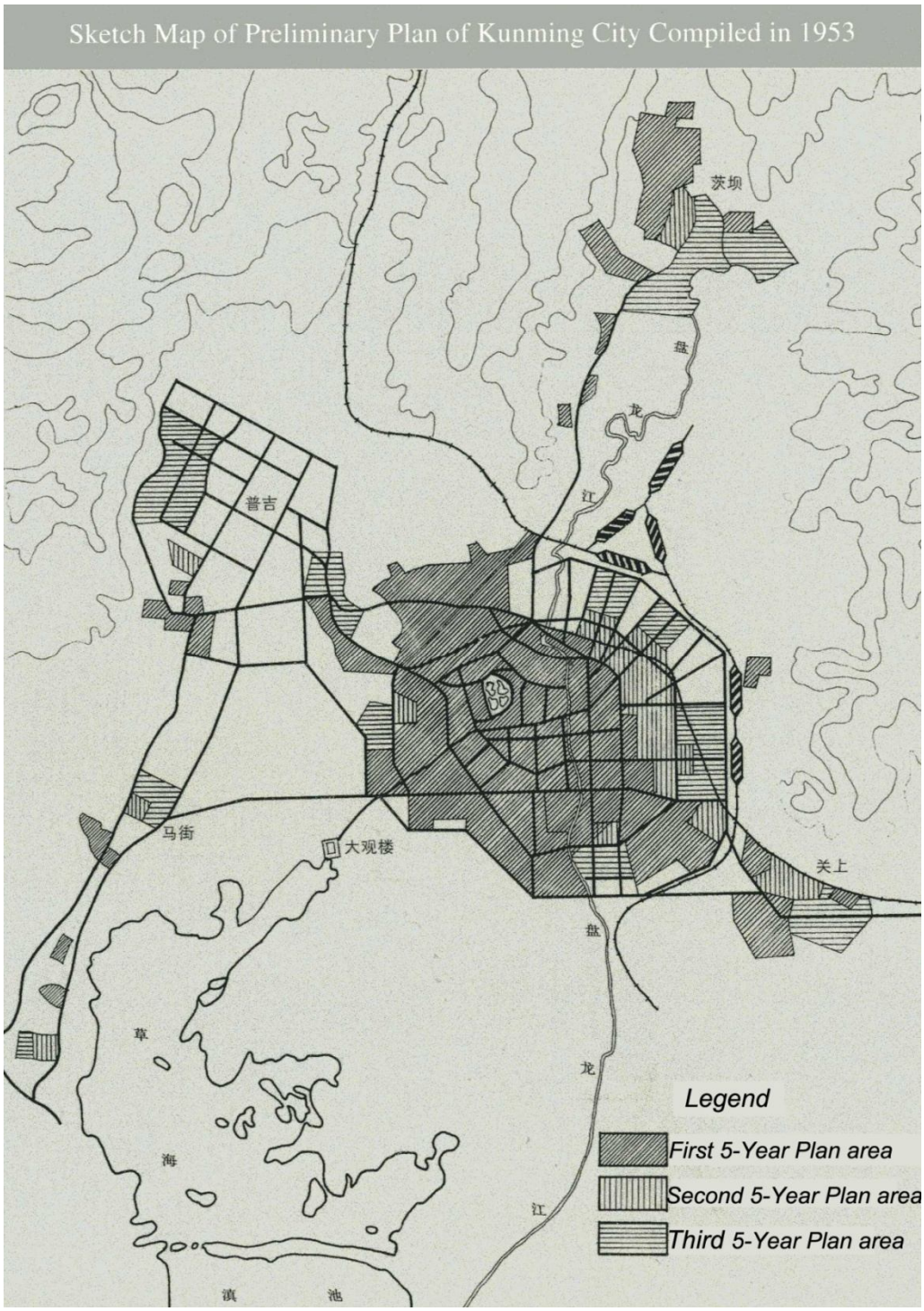


Fig. 3.7 Sketch Map of Preliminary Plan of Kunming City Compiled in 1953 (Liu, 2002, p. 134)

The Kunming city master plan which was proposed in 1959 was firstly defined the type and scale of urban development of Kunming city. It points out that the urban patterns should be developed as monocentric mode which was also called pie-style urban development. Through the division of functional district, the major systems of the main roads and fine industrial arrangement which have continued to today were

determined. But influenced by the ¡Great Leap Forward¡, there are some problems that will be impact the future urban development in this master plan, for instance, oversize scale of planning, excessive land expropriation, extremely high standard and pursuing new development with no enough patience. (Liu, 2002, p.137) (**Fig. 3.8)**

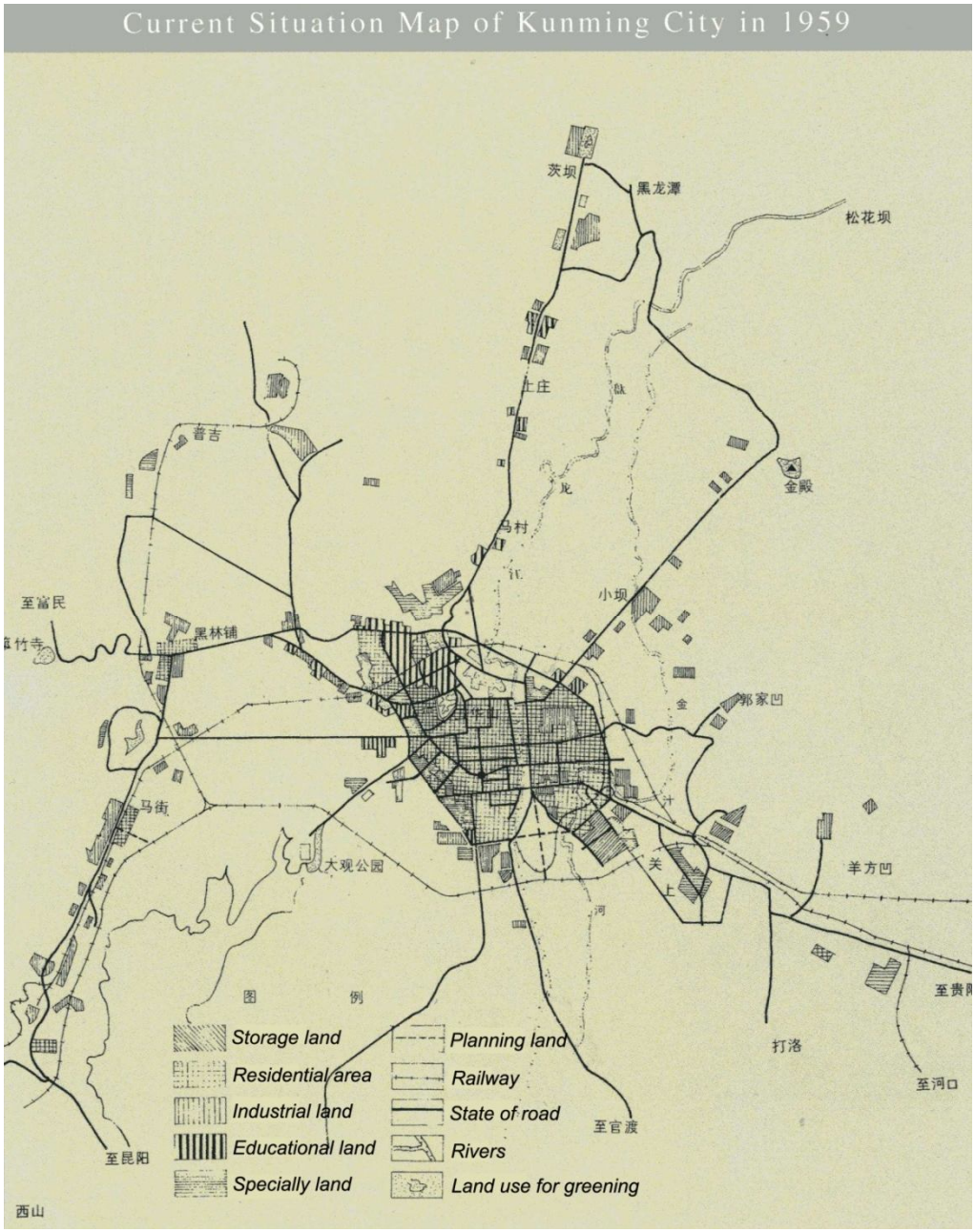


Fig. 3.8 Comprehensive Planning Map of Kunming City in 1959 (Liu, 2002, p. 136)

The master plan of ten-year construction of Kunming city proposed that urban development should control the land occupation and the urban layout should be compacted. This decision improved the problems which contains to oversize scale of planning and too much occupied land caused by the last master plan in 1959. **(Fig. 3.9)**

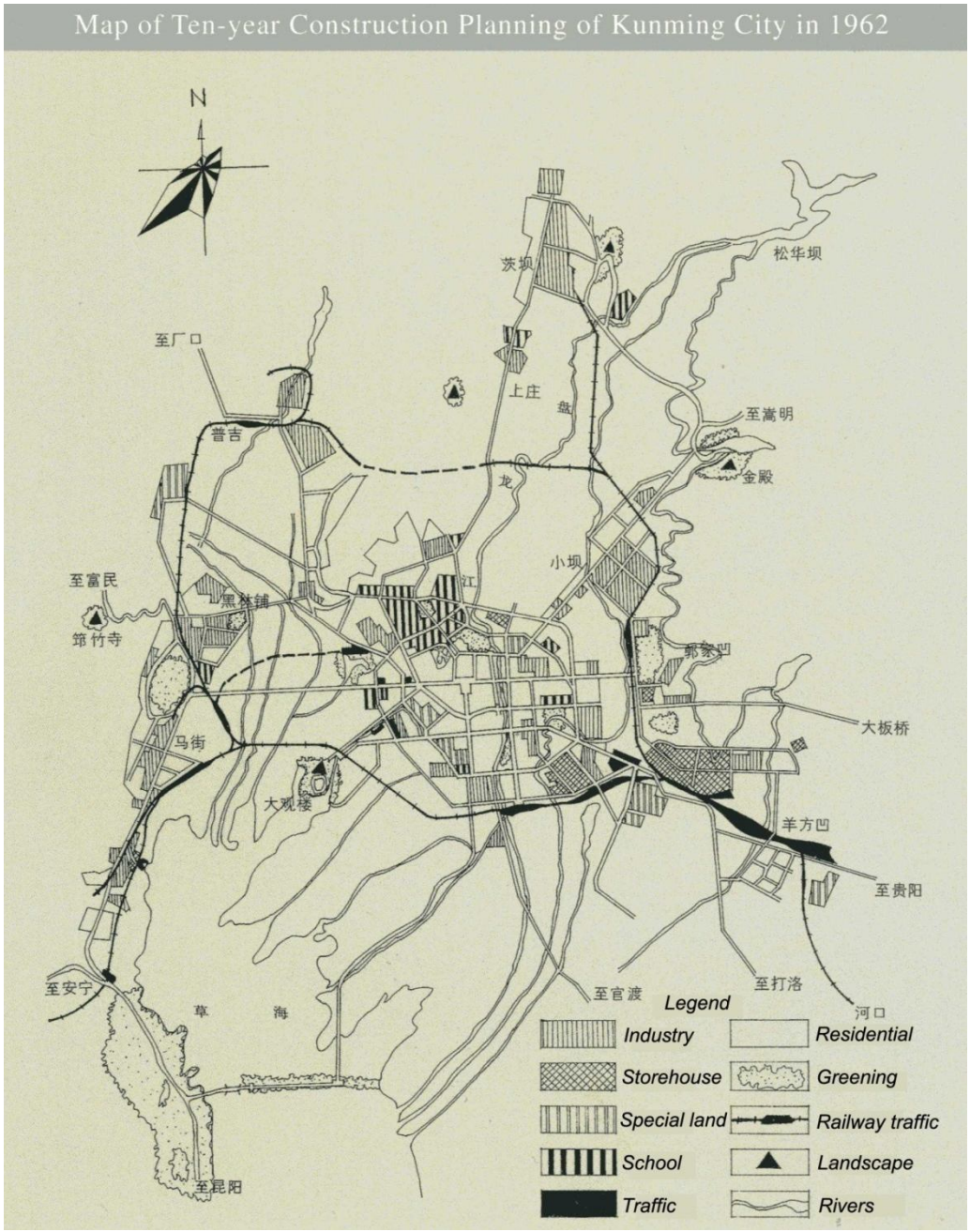


Fig. 3.9 Map of Ten-year Construction Planning of Kunming city in 1962 (Liu, 2002, p.138)

From 1966 to 1976, this decade was lag period of urbanization, and the ¡Great Cultural Revolution¡ had given heavy strikes to the politics and economy of the country. The infrastructure of Kunming city was falling into aging and disrepair. (Liu, 2002, p.157) During this decade, the land reclamation from Dianchi Lake carried out by current policy and the national trend of China, which caused the huge damage on natural environment which cannot be changed and will take a long time to fix. (**Fig. 3.10)**

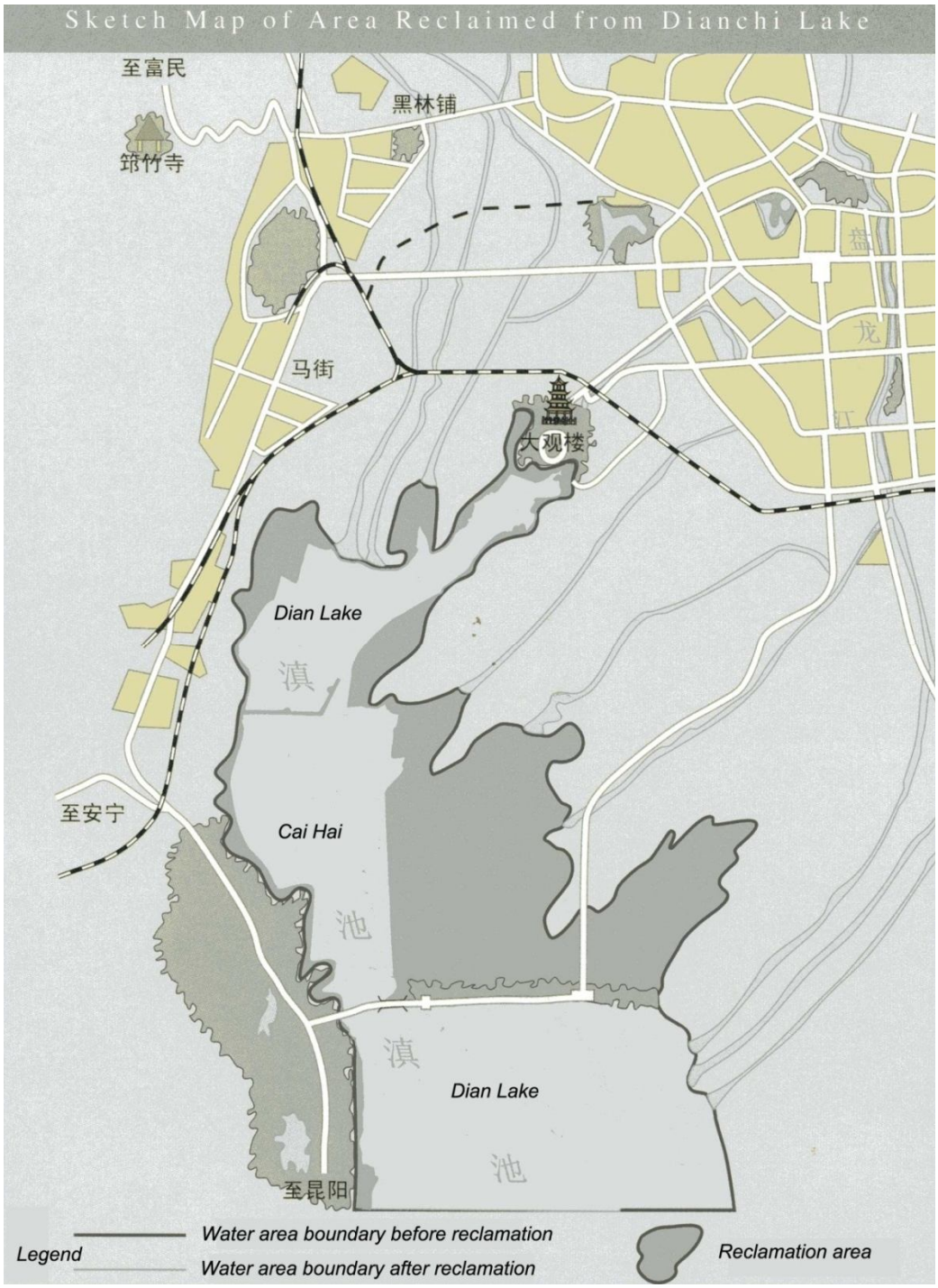


Fig. 3.10 Sketch Map of Area Reclaimed from Dianchi Lake (Liu, 2002, p. 158)

After ten years ¡Great Cultural Revolution¡, urbanization of Kunming entered into a revitalization period. During this period, the planning ideas of emphasizing the reconstruction of the old city town and developing the suburban industrial were implemented completely. Under the framework of keeping rural landscapes in the city, the image of Kunming had been changed a lot (Xue Liu,2002, p.163).

The master plan of Kunming in 1982 proposed the mode of Kunming city, urban scale,

direction of development, and first recognized that Kunming was historical and cultural city and had the great potential for tourist development. (**Fig. 3.11)**

Fig. 3.11 Comprehensive planning of Kunming City compiled in 1982 (Liu, 2002, p. 167)

¡After the year of 1992, Kunming entered the period of rapid urbanization (1992-2000)¡ (Liu, 2002, p.189).

3.4 City conservation and redevelopment of Kunming

In order to improve the living environment of local residents, and the physical environment which was no longer adapted to economical and social developments, the reconstruction project of Kunming city was implemented rapidly in the year of

1980.

From May 1966 to October 1976 the "Cultural Revolution in China", which lasted over ten years, brought a heavy blow to the country. Urban facilities were out of repair for years and urban development had entered a stagnation period. For the rapid development of agriculture, the government proposed a policy called ¡land reclamation¡, but it seriously damaged the ecological system of Dian Lake and the whole water environment of Kunming city. In the meantime, the government removed the Worker's Cultural Palace, Golden Horse green jade chicken lane, and a large number of other historical sites. This decision caused irreparable damage in terms of historical heritage conservation. ¡After ten years of Cultural Revolution in China, Kunming entered a revived period of urban development¡ (Liu, 2002, p.163). The main concept of urban planning in this period, which was focused on urban transformation and the development of sub-urban industrial areas, has greatly changed the city image of Kunming. This period can also be seen as the beginning of the urban transformation of Kunming.

After a series of urban transformation projects carried out in that period, traditional cultural relics, historic sites and urban patterns have been destroyed to different extents. In the March of 2001, the Planning and Design Institution of Kunming conducted a survey of the status quo of history and culture of Kunming city. According to this research, some serious issues were listed as an alarm bell to inform people that their local culture was gradually being lost:

"·Part of the natural landscape and environment, which represented the key features of the historical and cultural city, have been damaged to varying degrees.¡
"·A number of historical and cultural heritage buildings which have not been registered were damaged and misappropriated by residents.¡
"·A number of traditional spaces have been damaged to varying degrees."
"·There was a lack of protection of ancient trees, and the green environment around ancient streets and buildings suffered serious damage.¡
"·A number of destructive constructions, which will damage the living environment, were still around the Dian Lake, such as a quarry, plant and some farmhouses.¡
"·A number of ancient streets and buildings were out of repair because of lack of financial support.¡
"·Rapid urban development and population growth and continued pollution were the main reasons that made the natural environment worse.¡
(PDIK, 2001, pp. 16-17)

Over the 30 years of reform and opening-up of China, there had been a stage of rapid development and urbanization. With the rapid urban expansion, villages which were located in the peripheral urban areas had been converted to within the scope of the urban development areas, and some characteristics of traditional villages were likely to disappear in future urban construction. In addition, a number of urban village

renovation projects would be implemented in the forthcoming few years, which meant that the characteristics of traditional villages, in some of urban villages, would face the choice of retention or demolition.

3.5 Formation reasons of urban villages in China

3.5.1 The reasons underlying the formation of urban villages in China

The urban village was a manifestation of the extreme contrast caused by the huge urban-rural divide existing in a modern city. According to the process of accelerative urbanization, and by consulting the urbanization status of some developed countries, there will be 850 million people migrating from rural areas to the city in the next 25 years (Du, 2011, p.71). Nearly 150 million people will have been forced to move into the city by farmland expropriation, modification of household registration, and resettlement; the other 700 million people will have chosen to leave the countryside to find a new life in the city by doing work for others or by setting up their own business (Luo, 2001, p.150). These two kinds of people will settle down in urban villages in the city; the urban village is the first and fundamental choice of place for the migrant workers who want to live and work in the big cities.

The reasons for the formation of urban village in China can be summarized as three main points:

First of all, rapid urbanization led directly to the formation of urban villages. During the process of urbanization, the government expropriated land in order to widen the scale of the city. Some traditional villages were gradually surrounded by urban construction land. Those traditional villages which were located at the outskirts of the urban area were gradually transformed into a combination of urban and rural areas. They were surrounded by urban areas and had no projects to upgrade them within the urban sprawl. These areas eventually formed urban villages. Rural areas suddenly became urban land, but the standards of the living environment still remained at a very low level. This being the case, the ¡rural population was just ¡moved¡ into the city but still did not become the real residents there.¡ (Zheng, 2006, p. 84)

Secondly, for stakeholders, profits maximization was always their main target. Different land use and developments brought different profits. They found that the profits from autonomous land development by the village collective itself were higher than those from the land which was expropriated by the government. As a result, villagers were keen to engage in land development by themselves, and meanwhile they rejected the actions of land expropriation by the government. Farmland was not for farming any more, and a great challenge would be placed on the expropriation of urban construction land.

The spatial characteristics of urban villages were a high building density and a high

plot ratio, but this kind of fabrication of buildings certainly met the current trend with regard to market supply and demand. Because of the opportunity for a homestead house with low land costs, low housing costs and reasonable rental, the urban village became the first choice of migrant workers. Urban villages are usually located around the city centres, where the transportation is convenient and close to their workplace. Therefore, the urban villages gathered a large number of migrant workers because of the affordable cost of living, and house rental became the main income of local residents. Li (2002) pointed out that ¡driven by economic interests, local residents began to build ¡additional living areas¡ in order to add extra space to supply low-rent housing for migrant workers.¡ In order to increase their main source of income, it became a common choice to create more rental area for more income.

To promote the progress of the urban development and bring down the costs of urbanization, it became the rational choice for the government and developers to avoid developing the land which owned by villagers. Hence the development of villages was shelved indefinitely for a long time. In the meantime, the location and land value of the villages became more advantageous for local residents with the urban sprawl, and this gave them more justification to live in the village. Therefore, the policy of ¡expropriation of farmland and maintaining villages¡ became a common choice for local residents, government and developers.

Lastly, the unclear delimitation of property rights and collective ownership were direct reasons for the formation of urban villages. According to ¡*Land Management Law of China*¡, the property rights for rural lands belong to the rural collectives; the government can only expropriate farmland, and the homestead land should be kept by local residents. Due to the existence of the homestead land policy, the management of the urban villages became more and more difficult for the government. Land in urban villages belonged to the collective and was managed by a villagers¡ committee; as a result, the land ownership was unclear. Due to the reasons mentioned above, homestead land belonging to local residents who had the rights of land use was regarded as a basic living guarantee for local residents, and the existing houses and infrastructures were the basic living guarantees that local residents had to rely on.

3.5.2 The institutional background underlying the formation of urban villages in China

Under the conditions influenced by particular institutions and a low level of urbanization, the self-development of urban villages has been limited. Following the previous discussion of the reasons for the formation of urban villages in China, the unique institutional background of China, as a major factor which led to the formation of urban villages and also as a source of limitations, will be discussed in detail in the next section.

3.5.2.1 Dual management system between urban and rural

The dual management system is a policy which refers to an urban and rural area belonging to two different management systems. Dual ownership structure is a policy which requires that urban land belongs to the state, and rural land is owned by rural collectives. Due to the existence of the dual management system of city and village within some urban villages, an urban village contains the characteristics of both a city and a village at the same time. (Chen, 2009, p. 44)

Urban features within urban villages are shown in the following aspects: local residents of urban villages are living in a city centre area and, like urban residents, they are mainly engaged in secondary and tertiary industry; life in urban villages is gradually turning into an urban lifestyle.

Rural features within urban villages are shown in the following aspects: the land for the means of production is owned by a rural collective; the urban village within a community is managed by a villagers¡ committee, and local residents in an urban village remain classified as villagers.

3.5.2.2 Relative law of Collective ownership of land

The main legal feature of urban villages in China is it still implements the Collective ownership. (Sui, 2009) ¡*The Constitution of The People's Republic of China (Amended in 2004)*¡ clarified the land affiliation of urban and rural, and also the regulations of the utilization of land in article 10: ¡Land in the cities is owned by the state¡, ¡Land in the rural and suburban areas is owned by collectives except for those portions which belong to the state in accordance with the law;¡, ¡house sites and privately farmed plots of cropland and hilly land are also owned by collectives.¡. All that mentioned above are the evidences of collective ownership land in ¡*Constitution of People's Republic of China*¡. (8th NPC, 2004).

The use right and obligation which should be assumed by users of land have been presented in ¡*The Law of Land Administration of People¡s Republic of China*¡, it defined in article 9:

> ¡Land owned by the state and land collectively owned by peasants may be allocated to be used by units or individuals according to law. Units or individuals using land shall be responsible for the protection, management and a rational use of the land.¡
> (11th NPCSC, 2004)

And article 10 required that:

> ¡In lands collectively owned by peasants those have been allocated to villagers for collective ownership according to law

> shall be operated and managed by village collective economic organizations or villagers¡ committee and those have allocated to two or more peasants collective economic organizations of a village, shall be operated and managed jointly by the collective economic organizations of the village or villagers¡ groups; and those have allocated to township (town) peasant collectives shall be operated and managed by the rural collective economic organizations of the township (town).¡
> (11th NPCSC, 2004)

3.5.2.3 Homestead system

The public understanding of homestead system is: qualified members of collective economic organizations legally owned the use right of collective-owned land for building their own house, the land which occupied during this process is homestead land. (Sui, 2009) It includes three types of land as follows: the land for building houses, uninhabitable land and land which has been prepared for building house. According to the relevant law, homestead land is owned by state and rural collective. Therefore individual resident have no land ownership, and have no rights to transfer, rent and mortgage the land. According to the article 43 of ¡*The Law of Land Administration of PRC*¡ :

> ¡Any unit or individual that need land for construction purposes shall apply for the use of land owned by the State according to law, except land owned by farmer collectives used by collective economic organizations for building township enterprises or building houses for villagers or land owned by farmer collectives approved according to law for use in building public facilities or public welfare facilities of townships (towns).¡
> (11th NPCSC, 2004)

And article 62: ¡One rural household can own one piece of land for building house, with the area not exceeding the standards provided for by provinces, autonomous regions and municipalities.¡ (11th NPCSC, 2004) These regulations represented that homestead land is construction land which can be applied by individual resident to build their house, and one rural household can only allow to apply one piece of land, which is also the principle called ¡one rural household, one piece of land.¡

3.5.2.4 Household registration system

The household registration system is a basic administration system of the Republic of China. The traditional household registration system is a population management

mode which takes the family as basic unit directly linked with the land. The modern household registration system is a policy based on the unit of an individual, about whom the government has collected, confirmed and registered some basic information, such as the date of birth, death, kinship and legal living address, which can protect the equities for re-employment of citizens, their education and social welfare. (Lu, 2003) The main characteristic of the household registration system is that households are divided into agricultural households and non-agricultural households, are based on the relationship between the family members and the district they belong to, and this is the main reason for the emergence of urban-rural segmentation. Under the current household registration system of China, it is difficult for local residents to be transferred into citizens and enjoy the public benefits, such as unemployment benefits and retirement pension, and most of them choose to stay in their original villages, continuing to rely on collective assets. These assets undertake the social security function for local residents, who usually choose to stay in the original community of their village. (Li, 2002, p.110)

3.5. 3 ¡ Urban villages¡ and ¡ Slums¡

A slum, as defined by the United Nations agency UN-HABITAT, is a residential area of a city characterized by substandard housing, squalor, high-density residential areas and lacking in tenure security.

In the late 18th century, led by the Industrial Revolution, the labour force in western countries migrated from agriculture to secondary and tertiary industry. With the migration of a large mobile population, problems of housing shortages developed and worsened, and slums spread rapidly within cities. (Chen, 2009, p.18)

In mid-19th century Germany, housing shortage was a big problem with the migration of a large number of farmers. Due to the shortage of housing, many migrant people could only rent a bed to sleep in during the night and go back to work by day. A large number of simple houses were built to deal with the housing shortage during that period, and hence slums soon emerged as a result of this construction trend. For the same reasons, slums had emerged in the UK in the 19th century. In order to reap high profits, developers constructed residential areas with huge numbers of back-to-back houses (two rows of houses built back-to-back, with windows only at the front) in high density. Back-to-back houses have no cross-ventilation, and the distance between buildings was tiny. The community itself had no improved infrastructure, and nearly seven persons on average were living in one house, which meant that residents in such areas suffered from a very poor living environment (Zhou, 2007, p.29).

Slums can be said to be one of the common phenomena of urbanization. The problem has been faced by both developed countries and developing countries, and the situation is more serious in developing countries. In recent years, the number of slums has dramatically increased due to urban population expansion in Third World

countries. According to a report from UN-HABITAT in 2006, there were 327 million people living in the slums of the Commonwealth Nations, which was close to one-sixth of the local population. Among one-quarter of Commonwealth Nations (eleven African countries, two Asian countries, one Pacific State), over two-thirds of the urban population were living in slums, and most of these countries were in the process of rapid urbanization. (Zhou, 2007, p.30).

Given the definition of slums, there are many similarities between urban villages and slums.

An urban village is a high density residential area with a low standard of living. Taking Kunming as an example, the urban villages in Kunming usually have no large-scale green landscape. Due to the space between self-built houses being very narrow, residents in these buildings can even shake hands when they open the windows. Buildings in urban villages have been described as ¡shake-hands buildings¡. According to the investigation report on urban villages by Kunming Planning Bureau, there were 335 urban villages within 249 km^2 in built-up areas of Kunming. The residential area of urban villages was 19.5 square kilometres, which accommodated nearly 760 thousand people. The population density in urban village areas reached 39 thousand per square kilometre. In addition, most buildings in urban villages did not meet the design criteria in respect of earthquake resistant structure, fire control or safe evacuation; thus, buildings in urban villages have a high security risk (PDIK, 2008, p.2).

Most residents of urban villages are a mobile population dominated by migrant workers with a low income. Taking Kunming as an example, there was a non-household population of 516,152 in 335 urban villages in built-up areas of Kunming (PDIK, 2008, p.6). A non-household population is defined as migrant workers who live close to their workplace without a household registration, and is also called a mobile population. There are lots of low-rent houses supplied by local residents in urban villages, which have attracted large numbers of migrant workers to settle down there. Due to the diversity of residents in urban villages, security and environmental issues are prominent. ¡The most typical features of urban villages are a dirty living environment, disorderly social order and low quality of social infrastructure.¡ (PDIK, 2008, p.3)

The emergence of urban villages in China is more complicated in relation to the emergence of slums in western countries. They have similar characteristics, but the reasons for their formation are very different.

3.6 Present status quo of ¡urban villages in Kunming¡

According to the investigation report on urban villages by the Kunming Planning Bureau, within 249 km^2 in the built-up area in Kunming, 335 urban villages were

included in the scope of this investigation. **(Fig. 3.12)** The status quo of the built-up area, including four districts (Pan Long District, Wu Hua District, Guan Du District, Xi Shan District) were detailed in terms of: total population; residential land area in urban villages; proportion of urban villages within the built-up area in Kunming; population density; overall floorage, and the average plot ratio. The details of household population and non-household population are each listed in the following table, which represented the current situation with regard to the distribution and mobility of the external population.

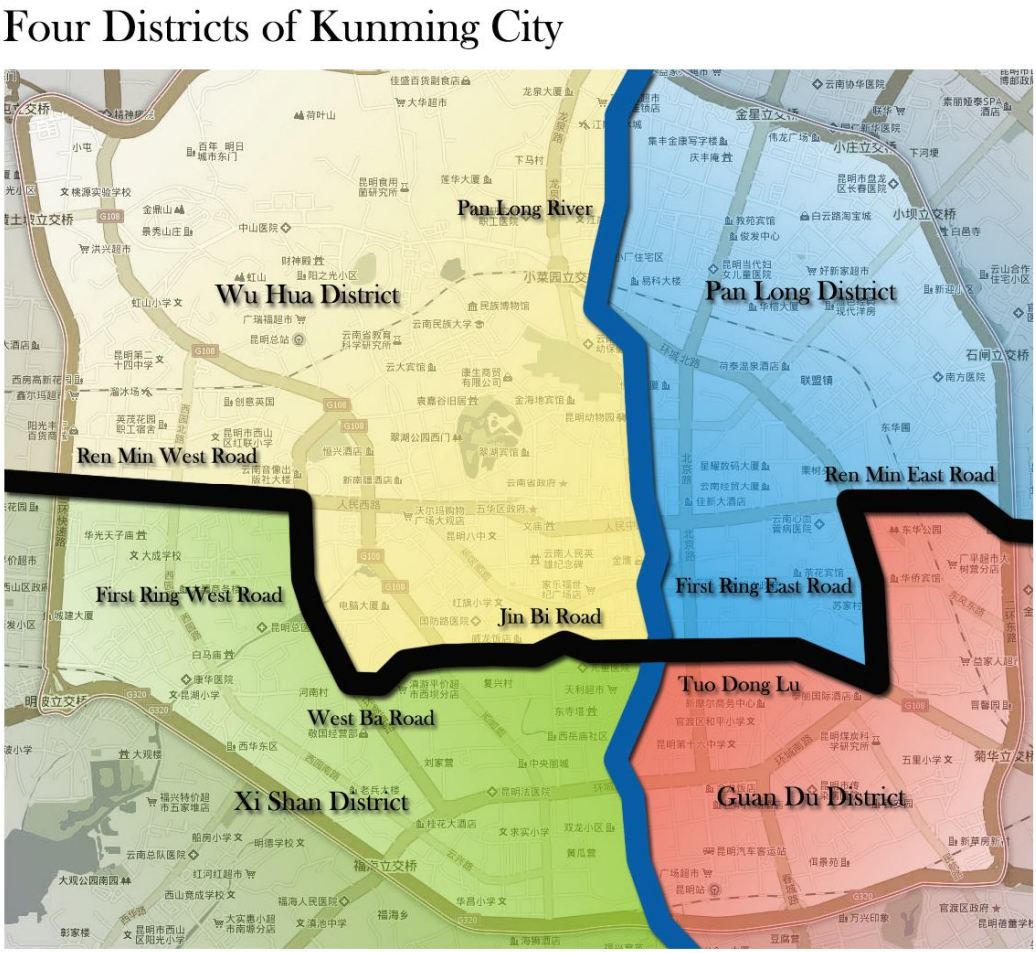


Fig. 3.12 Four Districts of Kunming city

3.6.1 Built-up area in central Kunming city

There are 335 urban villages in built-up area of Kunming. Residential land area is 19.5 km^2 which counted for 7.8% of the whole built-up area of Kunming (249km^2). The overall building area is 38.17 million square meters, and the average plot ratio is 1.59. The total population in all urban villages of Kunming is 760 thousand, and the population density is 39 thousand per square kilometer. According to the data in the following table, it represents that the most of external population are settled down in

urban villages.

	<1.0	1.～1.5	1.5～2.0	2.0～3.0	≥3.0	Total	Average plot ratio
Number of urban villages	17	104	52	112	50	335	
Residential land area	1574	12254	5301	7992.04	2229.8	29351 (19.57k ㎡)	
Total land area	6089.54	33996.94	18704	22760.27	6485	88036 (58.69k ㎡)	
Residential building area	925044	6099499.78	5765627.73	12617196.32	6E+06	31143685.55	
Total building area	937405.46	10576619.18	6242631.69	14186273	6E+06	38178196.76	1.59
State-owned area	389.39	7230.79	5126.49	9016.57	2765.7	24529 (16.35k ㎡)	
Collective-owned area	5284.15	26390.8	13268	13471.7	3401.3	61816 (41.21k ㎡)	
Household population	8016	87776	36987	80202	30955	243936	
Non-household population	4940	104583	80484	194027	132118	516152	

Fig. 3.13 Investigation table of built-up area in central city (The report of urban villages of Kunming, 2008, p.4)

3.6.2 Area within the second ring road

There are 72 urban villages in the area within the second ring road. Residential land area is 1.94 km^2 which counted for 4.3% of the area within the second ring road (45.3 km^2). The overall building area is 5.38 million square meters, and the average plot ratio is 2.48. The total population in this area is 210 thousand, and the population density is 108 thousand per square kilometer.

	<1.0	1.～1.5	1.5～2.0	2.0～3.0	≥3.0	Total	Average plot ratio
Number of urban villages	1	12	6	36	17	72	
Residential land area	10	483	362	1290	765.0	2910 (1.94k ㎡)	
Total land area	10	695	599	25522	1649	28475 (18.98k ㎡)	
Residential building area	6524	378770	413438	2116474	1888391.0	4803597	2.48
Total building area	6914	534879	441122	2290471	2113331	5386717	
State-owned area	0	206	190	831	515	1742 (1.16k ㎡)	

Collective-owned area	10	489	283	1670	1134	3586 (2.39k ㎡)	
Household population	58	5677	2486	19442	11770	39433	
Non-household population	600	11732	24668	67424	70436	174860	

Fig. 3.14 Investigation table of area within the second ring road (The report of urban villages of Kunming, 2008, p.6)

3.6.3 Pan Long District

There are 67 urban villages in the area within the Pan Long District. Residential land area is 2.96 km^2. The overall building area is 6.35 million square meters, and the average plot ratio is 1.71. The total population in this area is 200 thousand, and the population density is 67 thousand per square kilometer.

	<1.0	1～1.5	1.5～2.0	2.0～3.0	>3.0	Total	Average plot ratio
Number of urban villages	5	23	10	25	4	67	1.71
Residential land area	342611	996608	959015	2165889	598807	5062930	
Total land area	350331	1435697	1221980	2659811	685258	6353077	
Residential building area	349	1224	1087	1532	250	4442 (2.96k ㎡)	
Total building area	4444	8858	2258	3025	597	19182 (12.79k ㎡)	
State-owned area	70	1670	194	615	119	2668 (1.78k ㎡)	
Collective-owned area	4374	7188	2064	2410	478	16514 (11.01k ㎡)	
Household population	3688	15461	8121	16729	2919	46918	
Non-household population	3349	26349	23297	77051	23820	153866	

Fig. 3.15 Investigation table of Pan Long District (The report of urban villages of Kunming, 2008, p.8)

3.6.4 Wu Hua District

There are 51 urban villages in the area within the Wu Hua District. Residential land area is 3.6 km^2. The overall building area is 5.97 million square meters, and the average plot ratio is 1.56. The total population in this area is 91 thousand, and the population density is 25 thousand per square kilometer.

	<1.0	1.～1.5	1.5～2.0	2.0～3.0	≥3.0	Total	Average

							plot ratio
Number of urban villages	2	21	6	20	2	51	
Residential land area	91	3709	683	906	53	5442 (3.6k ㎡)	
Total land area	178	8127	5821	4092	471	18689 (12.46k ㎡)	1.56
Residential building area	57701.26	3092003.89	838944.5	1562908.4	100540	5652098.05	
Total building area	59553	3149385	924771	1729193	113440	5976342	
State-owned area	2	1960	1669	2230	221	6082 (4.05k ㎡)	
Collective-owned area	176	6167	4026	1826	250	12445 (8.30k ㎡)	
Household population	452	23619	4398	12301	885	41655	
Non-household population	353	13253	2272	33432	904	50214	

Fig. 3.16 Investigation table of Wu Hua District (The report of urban villages of Kunming, 2008, p.11)

3.6.5 Guan Du District

There are 102 urban villages in the area within the Guan Du District. Residential land area is 7.96 km^2. The overall building area is 14.73 million square meters, and the average plot ratio is 1.29. The total population in this area is 220 thousand, and the population density is 27 thousand per square kilometer.

	<1.0	1.～1.5	1.5～2.0	2.0～3.0	≥3.0	Total	Average plot ratio
Number of urban villages	5	40	13	26	18	102	
Residential land area	576	5481	2051	2892	934	11934 (7.96k ㎡)	
Total land area	635	13286	5340	7536	2524	29321 (19.55k ㎡)	1.29
Residential building area	335766	448998	2224124	4708130	2513305	10230323	
Total building area	336266	4327297	2275460	5040411	2746446	14725880	
State-owned area	122	2338	978	2377	888	6703 (4.47k ㎡)	
Collective-owned area	97	10573	4178	4923	1318	21089 (14.06k ㎡)	
Household population	1899	38669	12694	24138	11416	88816	
Non-household population	438	35840	14778	29460	51163	131679	

Fig. 3.17 Investigation table of Guan Du District (The report of urban villages of Kunming, 2008, p.13)

3.6.6 Xi Shan District

There are 115 urban villages in the area within the Xi Shan District. Residential land area is 5.02 km^2. The overall building area is 11.12 million square meters, and the average plot ratio is 2.03. The total population in this area is 246 thousand, and the population density is 49 thousand per square kilometer.

	<1.0	1.～1.5	1.5～2.0	2.0～3.0	≥3.0	Total	Average plot ratio
Number of urban villages	5	20	23	41	26	115	2.03
Residential land area	557.85	1839.62	1480.47	2662.04	992.79	7532.77 (5.02k ㎡)	
Total land area	832.54	3725.94	5285.49	8107.27	2893	20844.24 (13.90k ㎡)	
Residential building area	188965.46	1561889.89	1743544.23	4180268.92	2523666	10198334.5	
Total building area	191255.46	1664240.18	1820420.69	4756857.67	2690123.76	11122897.76	
State-owned area	195.39	1262.79	2285.49	3794.57	1537.7	9075.94 (6.05k ㎡)	
Collective-owned area	637.15	2462.75	3000	4312.7	1355.3	11767.9 (7.85k ㎡)	
Household population	1977	10027	11774	27034	15735	66547	
Non-household population	800	29141	40137	54084	56231	180393	

Fig. 3.18 Investigation table of Xi Shan District (The report of urban villages of Kunming, 2008, p.15)

According to the research data relating to the current status quo of urban villages in Kunming, a number of prominent characteristics show up, and most of them are also the difficulties with the implementation of urban village renovation projects. There is a large quantity of urban villages in Kunming, and they are widely distributed all over the newly urban area. A large number of projects implemented simultaneously will put a great challenge on the consumption ability of the housing market, and also on the living environment. In addition, a large area with a relatively low floor area ratio and a high building density will lead to a waste of land use. Furthermore, the continual increase in migrant population and housing demand will directly impact on the quality of life in and around the urban villages of Kunming.

3.7 The types of urban villages in central Kunming

Due to the rapid speed of urbanization, and controlled by current urban planning policy, the existence of this kind of urban village has caused numerous environmental

problems in terms of pollution, living environment and public security.
Due to their different geographic conditions and location, the urban villages within the built-up area of the central city have been impacted differently by the city¡s construction. As a result, the level of development and the images of these urban villages have developed differently. According to the investigation report by the Planning and Design Institution of Kunming, urban villages within the built-up area of Kunming can be divided into three conditions:

¡The first type of urban village was located at the edges of a built-up area or connected with it. The large-scale of spontaneous constructions built by villagers has not started yet, and the situation was under control and manageable.¡ (PDIK, 2008, p.10) This kind of urban village was relatively easy to transform and construct within its own development, but with the expansion of the city, this kind of urban village would turn into the second type if it did not attract enough attention.

¡The second type of urban village was surrounded by a built-up area, but the lands which still can be developed do exist in the urban village and the local construction has started gradually.¡ (PDIK, 2008, p.11). This kind of urban village still had room for improvement, but this needed to be led by an appropriate concept of city planning.

¡The third type of urban village was completely surrounded by a built-up area.¡ (PDIK, 2008, p.12) This type of urban village had already been fully used by local residents. There was no land for development and there would be lots of difficulties during the urban village renovation projects.

3.7.1 Problems and formation reasons of urban villages in Kunming

According to the investigation report and site investigations on urban villages within the newly built-up area of Kunming, the problems of urban villages in Kunming can be summarized as follows:

1. The chaotic fabric of urban villages has impacted badly on the city layout. Compared with the modern city layout around the urban villages, the urban villages have obviously lost their natural fabric. In the meantime, the construction of urban villages still continues in a disordered manner.

2. Due to the good location and improved social infrastructure around urban villages, housing with a low rent in urban villages has become a first choice for migrant workers. Because of the different land system and management mode between urban and rural areas, urban villages were not included in the city¡s master plan. Local residents built houses by themselves, which did not adhere to the building code; hence buildings in urban villages developed in high density, with limited open spaces. Urban villages are disordered in their land use, and a lack of green areas, or a basic urban infrastructure is certainly widespread. All these problems

show a lack of coordination within the image of the city.

3. A large number of migrant workers have mainly settled down in urban villages, and there are more of them than local residents in the villages. As a result, the population structure of urban villages is complex and mixed, and the management of a mobile population is extremely difficult; urban villages have become crime-prone areas due to these factors.

4. Small-scale factories, individual workshops, storehouses and habitations were mixed in a disorderly manner in the urban villages, and the urban functions have therefore conflicted with each other.

5. Construction in urban villages lacked planning control, and began in a spontaneous way. Buildings without planning control took the place of public roads and open spaces, and the existence of this kind of construction has the potential to lead to various inevitable disasters. In the meantime, Kunming is an area with 8 degree seismic intensity fortification; most of the buildings in Kunming must be designed under the seismic architectural code. Yet most of the buildings in urban villages were built by the local residents themselves, without strictly complying with these building codes. Therefore, the current building compositions in urban villages have hidden safety problems and are weak in terms of disaster prevention and reduction.

6. Local residents in urban villages rely mainly on rental income to maintain their livelihood. A large number of migrant workers, on a low income, have gathered in the urban villages. This group of people does not have a huge consumer demand and so cannot stimulate the development of business. Therefore, it is difficult to sustain the economic development of urban villages.

The reasons for the formation of urban villages in Kunming are partly similar to the reasons for urban villages in other cities of China. (Chen, 2009, p.88) The reasons for the formation of urban villages in Kunming are mainly as follows:

1. Due to the different land ownership, unified planning and management of land is difficult to implement.

2. The management systems are different in urban and rural areas. Although urban villages are surrounded by built-up urban areas, local residents who have still kept their rural residence registration do not belong to the urban management system. Driven by profits, rural collectives and local residents built their houses without strictly complying with building codes. They have paid little attention to the public environment, community health or basic infrastructures. The quality of life and the living environment in urban villages has been getting worse and worse.

3. The source of income of landless farmers mainly relies on rental income and collective bonuses; the source of income of rural collectives mainly relies on land lease rent and the compensation from government and developers. Most of the local residents in urban villages lack non-agricultural working skills, so they have little chance of getting a job in the city. All these reasons have led to the local residents being unable to take the initiative to become involved with the urban social life.

4. The increasing migration of migrant workers, who have ensured the development of city industry, has brought great pressure on the low-rent housing market. Most migrant workers settled down in urban villages because they did not care about the housing conditions and they could not afford the high rents of houses in other parts of the city. Such a situation encourages the construction of self-help housing in urban villages to some extent, which has worsened the living environment in urban villages.

5. Life in villages was in a traditional state for a long time. The behaviour of villagers relied on the restricted relationships of geographical area, genetic kinship and traditional customs. When a large number of migrant workers settled down in the urban villages, geographical and genetic relationships, and traditional customs, began to be gradually lost. Moreover, due to the lack of management or guidance for migrant workers, urban villages have become areas highlighted as having lots of public security problems.

There are two sides to every coin, and this is also true for urban villages. The formation and development of urban villages are closely linked with urbanization and the development of the urban economy. Urban villages have certainly affected the development of urbanization to some extent, but they have assumed a special urban function during the process of rapid urban development. Firstly, the urban villages themselves have developed in their own way and accommodated huge numbers of residents, even though most of the urban villages in Kunming have the same problems of inefficient land utilization. The urban villages in Kunming contain large quantities of developable land which has not been fully used during their development, but which is limited in its potential to become a new area for development during the process of urbanization. Secondly, a large number of migrant workers moved into the city searching for a new way to support their family, which brought tremendous pressures on the housing market. Under these circumstances, urban villages became their first affordable dwelling place, which eased the pressure on the housing market. Low-rent houses in urban villages have made up for the lack of affordable housing supplied by the government, and so to some extent are irreplaceable given the shortage in the housing market.

¡Kunming missed the best period of urban village transformation due to not receiving enough attention¡ (PDIK, 2008, p.2), but it will enter a period of rapid urban

development and economic growth in the next few years; existing urban villages should be reappraised in the light of the idea of sustainability, which will avoid forming new urban villages during the process of urban renewal.

3.8 The procedures of a project of ¡urban village renovation¡

3.8.1 Process of urban village renovation project

The implementation process of an urban village renovation project involves the participation of all levels of government departments, planning departments, grassroots organizations and local enterprises. Due to the complicated background of the urban village in China, the key to implementation of the project is to coordinate the opinions of all parties. There are several major processes for urban village renovation projects, which are listed as follows:

> ¡1. During the project of urban village renovation, the Land Department and Planning Department will advance intervention, grass-roots organizations and enterprises will participate in the same stages of the project, and the District (county) government will compile the ¡*Specialized Planning of Urban Village Renovation Project* (SPUVRP)¡ of the area which will be transformed.
>
> 2. After collecting the audit opinions from the Land Department and Planning Department, the SPUVRP should be submitted to grass-roots organizations; commitment to the document should be made after voting.
>
> 3. The SPUVRP should be submitted to the City Planning Commission for approval by the District (county) government.
>
> 4. The District (county) government should submit the approved SPUVRP to the steering group to serve as a record.
>
> 5. After the land has been imposed, the land of the area which will be transformed will be submitted to the Municipal Land Reserve Centre by the District (county) government.
>
> 6. The SPUVRP should be taken as a condition before land disposal, and publicly traded.
>
> 7. The enterprise which has won the bid should improve the project and seek the relevant permission according to the SPUVRP.
>
> 8. The process of project construction is started.¡
> (UVRLGK, 2008, p. 4)

The SPUVRP should be submitted to steering group before the implementation of the project, which is used as the main basis to ensure the planning and control conditions; methods of land supply; resettlement programme, and project examination of the plot of land which is involved in the project.

3.8.2 Specialized planning of urban village renovation project of Kunming and approval procedures

The specialized planning process for urban village renovation projects in Kunming is defined as the city master plan, the zoning plan, and other levels of plan which include: requests for the resettlement of villagers; environmental style and features; factors of economic development; the aims of the urban village renovation project; the transformation mode; displacement and resettlement; function; land utilization; intensity of land development; green space system; roads and traffic; social infrastructure, and project benefit analysis. In brief, the *¡ Management Measures of the Project of Urban village Renovation¡* provide that an urban village renovation project should involve the following:

¡1. Provision of designated planning area;

2. Aim of the urban village renovation project;

3. Functional planning;

4. Transformation mode and strategy;

5. Methods of land supply and resettlement programme;

6. Land utilization, which involves: site layout; main purpose of each plot and the integration between them; intensity of land development; total construction and each kind of construction; green rate and green coverage ratio; resident population, and number of households;

7. Open space and green space system;

8. Infrastructure control, which involves various public and municipal facilities;roads and traffic, which involves the traffic organization between internal and external parts of the designated planning area; road and vertical transportation; layout of transport station facilities, and pedestrian system control;

9. Municipal works, which involves load prediction for engineering pipelines and the control of pipeline system and facilities;

10. Urban design, which contains the organization of urban space, landscape design and architectural design;

11. Technical and economic indicators and economic feasibility evaluation;

12. Evaluation of transformation impact, which contains the evaluation of environment, road and traffic, social infrastructure and public service facilities.

13. Other requirements, which includes the protection of historical and cultural heritage, and protection of natural ecological resources;

14. The procedure and implementation measures of the project, which contains the plan of phased implementation and relevant supporting measures.¡
(UVRLGK, 2008, p. 5)

The approval procedure for urban village renovation in Kunming is a key part which can determine whether the project will be implemented effectively. The process of approval procedure is complicated, and involves the interests of many related stakeholders. Meanwhile, the approval procedure is also a process which integrates ideas and demands from all the stakeholders who are related to the project. The contents of an approval procedure for urban village renovation in Kunming are as follows:

¡1. The main research conclusions, planning and control conditions, technical indicators and land utilization for ¡specialized planning of urban village renovation project¡ should be given an audit opinion from the Planning Department and Land Department;

2. The resettlement programme should be submitted to the grass-roots unit and get at least a 90% pass rate in voting through the democratic process;

3. The specialized planning will be submitted from district government to city planning departments and then pass to the City Planning Commission for examination and approval;

4. After getting the ratification from the City Planning Commission, the specialized planning should be submitted to the steering group for urban village renovation and will be put on the list of plans for urban village renovation projects;

5. The approved specialized planning will be publicised by the district

(county) government at district (county) government offices and the areas affected by the specialized planning;

6. The approved specialized planning for urban village renovation cannot be arbitrarily modified;

7. During the process of the renovation project, if a modification is necessary on land-use planning, planning of land supply or resettlement programme, the modified planning should be given approval through the above procedures.¡
(UVRLGK, 2008, p. 5)

3.9 The house as compensation

3.9.1 House for compensation and the house ready for sale

The concept of receiving a house in compensation is rooted in housing demolition, and is also the unique result of demolition policy in China. Compensation housing refers to houses which are given in compensation by the parties who have occupied the land taken from the legal owners. The ¡house for sale¡ is a house which is directly sold by the developers. Normally, there is a certain percentage of houses for compensation in each piece of commercial real estate, where the prices are normally lower than the houses which are for sale. The differences between the compensation housing and houses for sale are as follows:

1. The house for sale can come onto the current market, and the owner of the house can get a loan by mortgaging the house at the bank. However the compensation house does not have the entitlements mentioned above, because houses for compensation have preferential public policies, no land transfer payments and the prices of the houses are relatively lower than the market price. Government departments will check and ratify the prices of houses for compensation by consulting the policy for affordable housing, and manage the houses under the policy for affordable housing.

2. The relationship between buyer and seller. Buying a ¡house for sale¡ is based on the ¡Commercial Residential Building Deal Contract¡, which is signed by the developers and the house purchaser, and the exact price of the house is agreed in this contract.

3.9.2 Ways to compensate the demolished houses in collective land

There are two notifications which are issued by the People's Government General Office of Kunming. These make provision for the compensation and resettlement of houses which are owned by estates and rural collectives. The prices of compensation

for buildings demolition, which is a major concern for local residents, has a clear reference in these notifications: local residents will receive up to 6500 yuan as compensation for the demolition of a house in the city; in the case of a house in rural collective land, local residents will receive up to 3700 yuan as compensation.

According to the notification of ¡Management Method for Compensation and Resettlement of the House in Collective Land in Built-up Area of Kunming¡, the government will implement this in two ways, which are currency indemnity and property swap, for the compensation and resettlement of a house on collective land. However, for those buildings which are of unauthorized construction, temporary buildings, and unauthorized additional buildings which were built after the publication of ¡Management Method for Compensation and Resettlement of the House in Collective Land in Built-up Area of Kunming¡, compensations are not available.

If local residents whose houses have been demolished during the project choose currency indemnity as the method of compensation, they will receive a one-time monetary compensation. The price of one-time monetary compensation is determined by the combined price of the land and the area of the building. Moreover, the building area is determined by a ¡Housing Ownership Certificate¡ or according to the standard area criterion that the ¡floor area is up to 300 square metres, and the storeys of the building are up to four floors¡. (PGGOK, 2009)

This chapter has reviewed the history of urban development which has impacted on the contemporary urbanization of Kunming city. The concept of urban villages in Kunming, including reasons for formation, existing problems, institutional background and the current policy for housing demolition have been discussed, and the influences on the implementation of urban village renovation projects in Kunming have been presented. In the next chapter, two cases of urban village renovation projects, which will be implemented in the particular background of Kunming, will be discussed in great detail.

Chapter 04: Case studies

Fig. 4.1 Zhao wei (n.d) Crowded urban village in Kunming [online image] Available at: <http://news.yninfo.com/finance/fdc/200803/t20080311_597126.htm> [Accessed 23 October 2011]

Chapter 4 Case studies

4.1 Case study

The following two case studies of urban village renovation projects in Kunming, with common design and planning methods, are presented. Both of them are in the planning stages and still have the potential to be improved. As BREEAM for Community does in the early planning stages of a project, the proper design and planning methods of urban village renovation projects in Kunming also contain several aspects which explore how to meet the greatest needs of stakeholders and their next generation. Two of them have had a consensus on the final target, which is what sustainable development in community design should be like, even though they have a different cultural and institutional background. As we all know, BREEAM of the UK is a green building assessment system which has developed and matured worldwide. In comparison with the principles of BREEAM for Community, the early planning stages of urban village renovation projects in Kunming still have a lot of possibility and potential to be improved. Furthermore, it is necessary to research the common design and planning methods of urban village renovation projects in Kunming, in order to summarize aspects which need to be improved.

The current researcher, as a member of the design and planning group of these two projects, has had the chance to obtain knowledge of the latest design progress during the process of the projects, and been able to closely observe the recent progress of the project. The design progress of these two projects has been well recorded and analyzed, which has clearly illustrated how the common design and planning methods of urban village renovation projects has changed and impacted on the original urban villages.

4.1.1 Case study 1

Title: Specialized planning of Da Ba, He Wei of Kunming urban village renovation project

Design organization: Architecture Design Office of Bo Wan in Shenzhen (first-rank architectural design qualification)

4.1.1.1 Location

Dian Lake Road is the most important communication route situated in the South West of Kunming city. (**Fig. 4.2**) Its development can be traced to the 1990s. It starts from the Fu Hai overpass on the north side, and ends at Yunnan Ethnic Village on the south. The layout of Dian Lake Road is like a blood vessel connecting several famous tourist destinations such as Dian Lake, Yunnan Ethnic Village, Hai Geng Park and Hong Ta athletic centre. With the establishment of Dian Lake National Tourist Resort

in 1992, Dian Lake Road attracted a lot of attention during the development of the modernization of Kunming.

Fig.4.2 Location of Dian Lake Road and site of the project

This project is located in the Dian Lake area, which is in the southern district and only five kilometres from the city centre. It is surrounded by Dian Lake Road and Guang Fu Road, and two rivers (Chuang Fang River and Cai Lian River) flow through the east and west sides of the planning plot. The whole construction land consists of two numbered pieces of land; the net land area is 274.7 thousand square metres， and the planned building area is 461,540 square metres. The construction land area is mostly flat, and has good geological building conditions. There are a lot of self-built houses on this site, with a poor construction quality and an even poorer living environment, and most residents there are local villagers and migrant workers from different places. (**Fig. 4.3**)

Fig. 4.3 Wen Jiang (2009) Pictures of status quo of Da ba, He Wei urban village [photograph]

4.1.1.2 Scope of transformation

The site is divided into two parts and numbered as site one and two, which are also included 8 communities. The area of each community is listed as follows:

Cluster one: 2150 square meters
Cluster two: 57830 square meters
Cluster three: 39160 square meters
Cluster four: 41300 square meters
Cluster five: 59040 square meters
Cluster six: 34030 square meters
Cluster seven: 72130 square meters
Cluster eight: 11830 square meters
Total area: 317470 square meters
(**Fig. 4.4)**

4.1.1.3 Leading principles from Kunming City planning department

The ¡*Specialized Planning of Da Ba, He Wei urban village renovation project*¡ demonstrates that the character of the land utilization includes: residential land; commercial land; use of land for urban roads, and public green space (no less than 78.5 thousand square metres). It meets the basic needs in terms of the social infrastructures for a residential district. According to the investigation report on the status quo of the site, the ¡*Specialized Planning of Da Ba, He Wei urban village renovation project*¡ clearly identifies the following issues: the planning should supply a 36-class primary school with 2,000 square metres of land area; two 9-class nursery schools with 3,000 square metres of land area for each; two fresh food supermarkets with 3,000 square metres of land area; two small scale refuse transfer stations with

100 square metres of land area for each, and four public toilets with 100 square metres of land area for each.

Fig. 4.4 Archilier Architecture. LL (2009) Scope of transformation

4.1.1.4 Master plan

Fig. 4.5 Archilier Architecture. LL (2009) Master plan of Da Ba, He Wei urban village

From researching the concept of the master plan, it is clear that the city planners and developers have shown their ambitions to create a multi-element and multifunction community. An ¡administrative and business centre for Kunming¡, and an ¡urban artery¡ are the ultimate goals of this plan. (**Fig. 4.5**)

Research of the site of Dian Lake district shows that, relative to the development of residential real estate, the development of commercial real estate is still backward. As a result, the growing problems of a lack of business facilities and other social facilities are becoming hot topics for discussion. The single form businesses, small scale, lack of service facilities and poor living environment, which will bring down the urban diversity of this district, have highlighted the maladjusted living standards facing local residents. In order to improve these problems, after discussion among city planners, government and developers, the aim of this project is a comprehensive functional area combined with business and residential infrastructures. (**Fig. 4.6**)

With regard to the benefits of this concept, on the one hand, it will improve the current poor living environment and public social infrastructures; on the other hand, it will help to diversify the business structure, the lifestyle of local residents and the entertainment industry, which will bring various job opportunities to local people and migrant workers. It will enhance the living environment while developing the regional economy.

Fig. 4.6 Archilier Architecture. LL (2009) Aerial view

4.1.1.4.1 Main Economic and Technical Indexes of the Project

<table>
<tr><td colspan="7">Comprehensive economic and technical indicators</td></tr>
<tr><td colspan="3">Items</td><td>Indicator</td><td colspan="2">Items</td><td>Indicator</td></tr>
<tr><td colspan="3">Total land area</td><td>487350 ㎡</td><td colspan="2">Under-ground building area</td><td>188920 ㎡</td></tr>
<tr><td colspan="3">Net land area</td><td>274726 ㎡</td><td colspan="2">Area of base</td><td>91670 ㎡</td></tr>
<tr><td colspan="3">Total building area</td><td>650460 ㎡</td><td colspan="2">Building density</td><td>33.36%</td></tr>
<tr><td colspan="3">Building area above ground</td><td>461540 ㎡</td><td colspan="2">Plot ratio</td><td>1.68</td></tr>
<tr><td rowspan="8">Including</td><td colspan="2">Compensation house area</td><td>103680 ㎡</td><td colspan="2">Green land rate</td><td>45.50%</td></tr>
<tr><td colspan="2">Garden house</td><td>226450 ㎡</td><td colspan="2">Parking stalls</td><td>4717</td></tr>
<tr><td colspan="2">Two-storey house</td><td>20800 ㎡</td><td rowspan="2">Including</td><td>Underground car parking for business</td><td>892</td></tr>
<tr><td colspan="2">Commercial building</td><td>75250 ㎡</td><td>Underground car parking for residential</td><td>3825</td></tr>
<tr><td colspan="2">Public buildings and facilities</td><td>17210 ㎡</td><td colspan="2">Total number of householders</td><td>3190</td></tr>
<tr><td rowspan="3">Including</td><td>Two refuse transfer station</td><td>100 ㎡(each)</td><td colspan="2">Demolition and construction ratio</td><td>1:3.2</td></tr>
<tr><td>Two fresh food supermarket</td><td>3000 ㎡ (each)</td><td colspan="2"></td><td></td></tr>
<tr><td>Four public toilet</td><td>100 ㎡(each)</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">Two 9-classes nursery school</td><td>5350 ㎡</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">36-classes primary school</td><td>12800 ㎡</td><td colspan="2"></td><td></td></tr>
</table>

Fig. 4.7 Archilier Architecture. LL (2009) Main Economic and Technical Indexes of the Project

4.1.1.4.2 Functional planning

To meet the demands of the commercial functions of the Dian Lake Road district, a complex of buildings, with a combination of commercial and office use structures, are laid out along the Dian Lake Road in Site One. Commercial housing and compensation housing are arranged in Site Two, which includes different types of houses such as western-style houses with gardens, two-storey houses and general housing. This kind of development mode for the residential area involves different types of residence models with different levels of design. The range of residence models will be suitable for the wide range of house purchasers, which will include a variety of people from different social levels. (**Fig. 4.8**)

During the process of current planning, in consideration of the economic interests of all the local residents, the construction of compensation houses should meet the needs and basic requirements of relocatees, and good quality housing with fine green spaces should be ensured. In addition, according to the basic social infrastructures required in

the ¡ *Specialized Planning of Da Ba, He Wei urban village renovation project*¡ , the planning has proposed a 36-class primary school, two 9-class nursery schools, two fresh food supermarkets, two small scale refuse transfer stations and four public toilets, which will satisfy the demands of the educational, living, and other daily needs of the whole community. (**Fig. 4.7**)

Fig. 4.8 Archilier Architecture. LL (2009) Functional distribution

4.1.1.4.3 Sunlight analysis

According to the national regulations on sunshine hours, this plan used the Tsun 6.5 vision to analyze the insolation duration of the residential buildings. The insolation standard for residential buildings is: in the time range of 9:00-15:00, a residential building requires at least one hour sunshine duration; in the time range of 9:00-15:00, a nursery school requires at least three continuous hours sunshine duration. (**Fig. 4.9**)

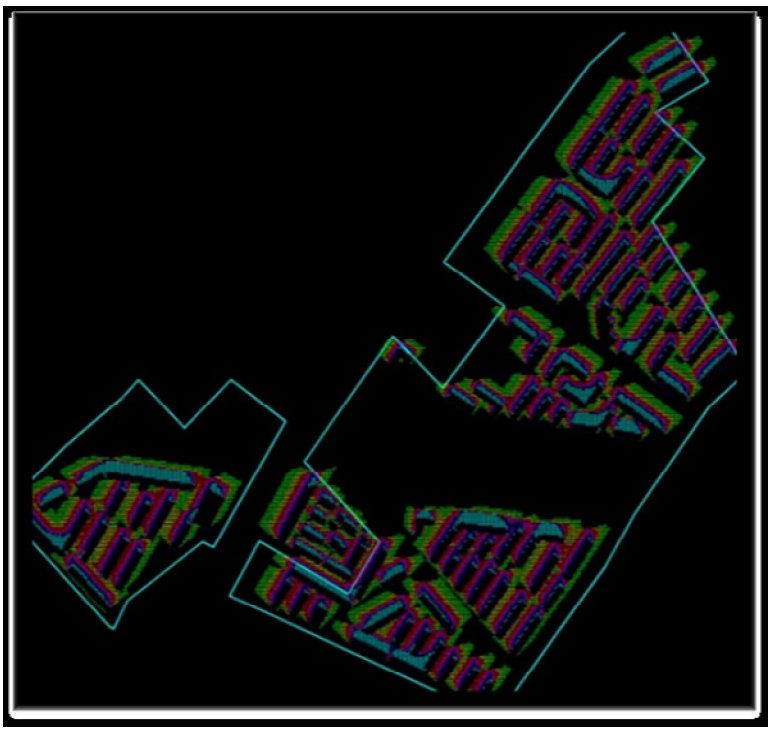


Fig. 4.9 Archilier Architecture. LL (2009) Sunlight analysis

4.1.1.4.4 Underground parking configuration

According to the new parking ratio requirements in the ¡Urban planning and management technical requirements of Kunming¡, ¡For commercial premises, it has to provide at least 0.5 parking stall per 100 square metres building area; for residential 1, it has to provide at least 0.75 parking stall per 100 square metres building area; for residential 2, it has to provide at least 0.5 parking stall per 100 square metres building area; for commercial and residential combined buildings, it has to provide at least 1.00 parking stall per 100 square metres building area.¡(BMDKMPG, 2010, p. 4) To comply with these requirements, the configuration of parking stalls fully meets the required standards and the parking ratio of this plan is detailed in Fig. 4.10:

Allocated parking spaces		
	Basement area(㎡)	Parking stalls
commercial 1	3400	85
commercial 2	4800	120
commercial 3	21000	525
commercial 4	6500	162
	35700	892

Allocated parking spaces			
	Number of householders	Basement area(㎡)	Parking stalls
cluster 1	468	24170	604
cluster 2	684	28920	723
cluster 3	564	23750	593
cluster 4	392	16650	416
cluster 5	318	20910	520
cluster 6	692	35070	876
cluster 7	72	3750	93
cluster 8	3190	153220	3825

Fig. 4.10 Archilier Architecture. LL (2009) Underground parking configuration

4.1.1.4.5 Road network analysis

The main road of this plan connected the urban arterial road, and organized the inner cluster by forming the main green landscape axis. (**Fig. 4.11**)

4.1.1.4.6 Fire evacuation

Complied with the ¡*Code for Design of Building Fire Protection and Prevention*¡, designed fire lane and turnarounds are distributed among eight residential clusters, which is the great improvement than the situation of fire evacuation design in original urban village. (AQSIQ & MCPRC, 2006, p.30) （**Fig.4.12**）

Fig. 4.11 Archilier Architecture. LL (2009) Road network analysis

Fig. 4.12 Archilier Architecture. LL (2009) Fire evacuation

4.1.2 Case study 2

Title: No.23zone of Tai He in Dian Lake National Tourist Resort
Applying Company: Urban renewal office in tourist holiday district of Dian Lake
Design organization: Design and planning institute of Hai Nan Yuan Zheng (first-rank architectural design qualification)
Project planning: Project planning Studio of Zhigang Wang

4.1.2.1 Location

The project covers nearly 105 hectares, and is located at the core area of Dian Lake National Tourist Resort, which is situated to the South West of the central city district. The location of the project is on the North of Qian Wei West Road, and close to the Theme Park of Yunnan and Vietnam; to the South of the project is Hong Ta East Road, and it is close to ¡Dian Lake Wei Cheng¡ (an exclusive residential district in Kunming); to the East of the project is Guang Fu Road, which connects with Kun Luo Road (the access to the new city of Cheng Gong). There is a strong connection between Dian Lake Road, Guang Fu Road and the road network of the central city district, and it is easy to reach the core natural scenic spot (Hai Geng Park, Yunnan Folkways Village) via Dian Lake road. There will be a light rail station set on the west side of the project, and the relationship between the project¡s location and the central city district will be enhanced by the construction of this light rail station. Efficient transportation and the close links between the project¡s location and the central city district are obvious advantages of this project.

Location of the site of project

Fig.4.13 Location of the site of the project

4.1.2.2 Scope of transformation

The location of the project is surrounded by Guang Fu Road, Dian Lake Road, Qian Wei West Road and Hong Ta East Road. The land of the area surrounding this site is flat and wide. The open space is distributed at the North West of the site; some industrial factory buildings are situated at the eastern part of site, and in the southern part of site are located some urban villages where the buildings are old residential houses, most of which are three or four storeys high and of poor construction quality.

Fig. 4.14 Wen Jiang (2009) Pictures of status quo of Tai He urban village [photograph]

The floor space of the buildings which will be demolished in the urban village is nearly 730 thousand square metres. The floor space for demolition in the scope of the urban village renovation (Tai He Group nos. 1-4) is 540 thousand square metres (the floor space of old residential houses is 360 thousand square metres, and the floor space of industrial factory buildings is 180 thousand square metres); the floor space for new buildings is 1.17 million square metres, and the demolition and construction ratio is 1:2.15.

4.1.2.3 Leading principles from City planning department

The city planning department of Kunming instructed some design details in the document ¡Guidance for Specialized plan of Tai He urban village renovation project¡;

it identified design details which will play a leading role during the whole design process.

Within the total land of the project, 400 thousand square metres of land are planned as residential development. The character of land utilization includes four types, which are: residential land; public landscape; commercial land, and urban roads; the public landscape land in particular cannot be less than 185 thousand square metres. In terms of municipal infrastructures, it is required to arrange the educational configuration of a secondary school with 36-48 classes and a primary school with 36 classes (land area: 26 thousand square metres), and a nursery school with 12 classes (land use: 4000 square metres). For the public service infrastructures, it is required to lay out two farm-produce markets with 3000 square metres. The distance between boundary lines of roads and buildings is also defined in the document ¡Guidance for Specialized plan of Tai He urban village renovation project¡ as follows: distance between buildings and boundary lines of Nan Raocheng Road must be not less than 50 metres; distance between buildings and boundary lines of Guang Fu Road to be not less than 30 metres, and the distance between buildings and the Qing Shui River to be not less than 30 metres. The positioning of the project is as a residential area with a high living quality, to include high standard supporting commercial service facilities with a commercial building area of more than 20% of the total building area. For most buildings, the building height cannot be greater than 20 metres, and for buildings next to the river, the building height cannot be greater than 18 metres. In accordance with the current policy for residential area planning, all the parking areas must be arranged under the ground; and for the parking requirements of the residential area, the plan has to meet the needs of one parking space per family.

4.1.2.4 Master plan

Fig. 4.15 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Aerial view of master plan

4.1.2.4.1 The adjustment of regulatory plan

The regulatory plan, which is attached in the leading principles of the ¡Specialized Planning of Urban Village Renovation Project¡, shows that there are ten lengthwise roads (from North West to South East), and three lateral roads (from North East to South West) arranged on the site (before amendment). In the investigation of the status quo, three reasons for this are represented:

The road network in the regulatory plan is dense; some of the lengthwise roads are unnecessary and show low efficiency in practical application.

There are three cross-river roads along the Qing Shui river in the regulatory plan, which will seriously influence the ecological environment along the river.

On the north side of the Qing Shui river, another residential area with high living standards is under construction. In this case, the cross-river roads will seriously influence the natural landscape and living environment of this residential area.

To be directed against these negative reasons, and in accordance with the provisions made, some unnecessary lengthwise roads will be amended (especially the cross-river roads). In terms of amendment to the width of roads, the width of major roads in the regulatory plan are: width of Qian Wei West Road is 40 metres; Nan Rao Cheng Line is 68 metres; Hong Ta East Road is 40 metres; Guang Fu Road is 48 metres, and Old Hai Geng Road is 25 metres. They required the plan for these to be narrowed to different degrees. In the new master plan, the width of Qian Wei West Road is 32 metres; Nan Rao Cheng Line is 50 metres; Hong Ta East Road is 36 metres; Guang Fu Road is 45 metres, and Old Hai Geng Road is 21 metres (Old Hai Geng Road is 7 metres in the status quo).

Fig. 4.16 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Before the amendment

Fig. 4.17 Design and Planning Institute of Hai Nan Yuan Zheng (2009) After the amendment

4.1.2.4.2 Master plan

Fig. 4.18 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Master Plan

This master plan meets the several important indicators in accordance with principles which was provided on ¡Specialized Planning of Urban Village Renovation Project¡ and ¡Guidance for Specialized plan of Tai He urban village renovation project¡. It achieved on plot ratio (1.96), building density (24.64%), ratio of green space (45.98%), number of householder (7615), car parking stalls (10820), line density of road network(10.55km/km^2).

Comprehensive economic and technical indicators					
Project			Indicators	Unit	Others
Total land area of master plan			1066767	㎡	
Include	Net land area		696034	㎡	
	Include	Residential land	522839	㎡	
		Commercial land	48398	㎡	
		Educational land for secondary school	28800	㎡	
		Land for nursery	7020	㎡	
		Land for public buildings	8331	㎡	
		Land for business	80646	㎡	

		buildings			
	Municipal roads area		170526	㎡	
	Public river and water area		21439	㎡	
	Public landscape		178768	㎡	
Area of net land planning			696034	㎡	
Ground floor area			1177530	㎡	
Include	Residential		489270	㎡	Not including the area of compensation houses
	Include	Below 90 square meters	98833	㎡	20.2% of total residential area
		Above 90 square meters	390437	㎡	79.8% of total residential area
	Area of compensation houses		417760	㎡	
	Commercial building area		222763	㎡	
	Other municipal infrastructures	Club	6360	㎡	
		Public buildings in community	1600	㎡	
		Community Center	3950	㎡	
		Community Service Station	1200	㎡	
		Public convenience	380	㎡	
		Waste transfer station	200	㎡	
		Municipal management buildings	2400	㎡	
		Local police station	1200	㎡	
		Outpatient service	3000	㎡	
		Fire station	900	㎡	
		Fresh food supermarket	6000	㎡	
	Secondary school（36 classes）		15087	㎡	
	Nursery school		5520	㎡	
Ground floor area			441900	㎡	
Include	Underground parking garage		441900	㎡	
	Car parking stalls for commercial utilization		300		
	Car parking stalls for residential utilization		7670		
	Car parking stalls for office area utilization		2850		
Number of householders			7615		
Occupant capacity			24368		
Plot ratio			1.69		Net land
Building density			24.64	%	Net land
Maximum building height			50	m	
Ratio of green space			45.98	%	Net land

Density of road network	10.55	kilometer/square kilometre	Net land
Demolition area	540000	㎡	
Number of households during demolition	1200		
Construction area above ground floor	1177530	㎡	
Demolition and construction ratio	1/2.18		

Fig. 4.19 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Comprehensive economic and technical indicators

4.1.2.4.3 Function division

The whole planned residential area includes six functional parts. The red part distributed on the North of the site is a commercial centre, including an advanced business park (ABP) and attached commercial blocks. The yellow part, which is situated on the North East of the site, is a compensation house area which will accommodate all the relocatees from the original urban villages. In the central blue part of the site is the commercial housing area with a western building-style, which provides different house types for house purchasers. The high-level multi-storey residential buildings area are on the West of the site, which includes four-storey garden villas and six-storey multi-storey residential buildings. There is a secondary school with 48-classes situated on the South part of the site, which will resolve the schooling issues for children who are living in the neighbouring residential area. The details of each functional part are listed in the following table:

Fig. 4.20 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Function of

each area

	Net planned land	Above ground building area	Underground building area	Number of household	Number of reisdents	Plot ratio	Building density	Ratio of green space
Advanced business park	80646	154750	100000	-	-	1.92	22.86%	45.64 %
Velarium commercial street	38025	45094	-	-	-	1.19	35.52%	45.68 %
Educational district	31486	20087	-	-	-	0.64	18.01%	45.00 %
Compensation cluster	172208	421000	159000	4060	12992	2.44	25.00%	45.99 %
Western-style house district one	92462	148011	49500	1056	3379	1.6	24.47%	45.99 %
Western-style house district two	170860	319503	110800	2236	7155	1.87	25.11%	45.99 %
multi-storey house district	110347	69085	9000	263	842	0.63	24.40%	45.70 %
Total	696034	1177530	441900	7615	24368	1.69	24.64%	45.88 %

Fig. 4.21 Design and Planning Institute of Hai Nan Yuan Zheng (2009) Indicator of each functional area

4.1.2.4.4 Building sunlight distribution analysis

According to the national regulation on sunny hours, this plan used Tsun 7.0 vision to analyze insolation duration of residential buildings. Complied with the residential building insolation standard, it has to ensure no less than one sunshine hour during the winter in new residential buildings and the surrounding reserved buildings.

4.1.2.5 Evaluation principles from experts

On 18th November 2009, the appraisal meeting about the ¡Specific plan for No. 23 district of Tai He urban village of Dian Lake National Tourist Resort¡ was held by the Management Committee of Dian Lake Holiday Resort, which is a bureau affiliated to the Planning Bureau of Kunming. Relevant departmental managers and city planning and architectural experts of Yunnan attended this meeting. This project was evaluated through discussion and exchange of ideas among the experts and managers, who achieved the consensus that this project met the development needs of the Dian Lake Holiday Resort. On the basis of this result, some evaluation principles were put forward to improve the master plan. They emphasized that, except for the basic social

infrastructures which would serve the whole residential area, some important issues had to be achieved: a fire lane inside each residential cluster; a pedestrian system; a dynamic and static traffic system; natural landscaping; a city skyline design along the Nan Rao Cheng; the utilization of existing water resources to create a meaningful waterfront landscape, and enhancement of the identifiability of Tai He district by researching the architectural style.

Fig.4.22 Design and planning institute of Hai Nan Yuan Zheng (2009) Building sunlight distribution analysis

4.1.2.6 Evaluation principles from Planning Directorate comments

After the meeting relating to ¡Specific plan for No. 23 district of Tai He urban village of Dian Lake National Tourist Resort¡, which was held by the Management Committee of Dian Lake Holiday Resort, an affiliated bureau of the Planning Bureau of Kunming, the Planning Directorate¡s comments expressed their evaluation principles as follows:

Along the planned roads which are no less than 10 metres wide, the buildings should be set back 20 metres; along those planned roads which are no less than 5 metres wide, the buildings should be set back 15 metres.

The building height limitation on the west side of Guang Fu Road must be below 36 metres.

On both sides of Nan Rao Cheng Road, only arbours can be planted in the protected greenbelt.

The building clusters on the west side of Nan Rao Cheng Road should allow permeability.

Building intervals and utilization of set-back land should comply with the current State and Local criteria and the compulsory features on standards of insolation duration and fire protection design.

4.1.2.7 Principles from Kunming Dian Lake National Tourism Resort Planning Commission comments

On 26th November 2009, a meeting of the Dian Lake Holiday Resort planning board on the ¡Specific plan for No. 23 district of Tai He urban village of Dian Lake National Tourist Resort¡ was held for the purpose of discussion between the professional experts and leaders. This meeting reached a consensus that developing Tai He district rapidly should be the main target of Dian Lake Holiday Resort. A number of strategies were made for the design, such as issues of building height limitation; these included: permission for a super high-rise building to be built close to the Guang Fu Road; a few buildings adjacent to Nan Rao Cheng Road were permitted to be built up to 50 metres high, and small high-rise residential buildings in the compensation house area would be permitted to be built up to 36 metres. In terms of utilization of set-back land, structures were forbidden and only active recreation facilities could be built on the land between Nan Rao Cheng Road and residential buildings.

4.1.2.8 Reply from stakeholders

As key stakeholders, some local residents¡ groups and enterprises in the urban village took part in the programme of decision-making, after most of the local residents and enterprises gave their agreement in reply to the assumption paper for the urban village renovation project, that the project could be implemented in due course. In this project, the pass rate for the assumption paper reply from local residents and enterprises was not less than 90% and 80%, and this complied with the precondition for the implementation of an urban village renovation project.

4.1.3 Conclusions of case study

4.1.3.1 Characteristics of popular fixing methods in the urban village renovation projects of Kunming

In these two case studies, the popular implementation methods for the urban village renovation projects of Kunming have some common characteristics which can be

generalized into several aspects: the production of extensive amalgamated dwellings; reconstruction mainly for residential and commercial use (usually appearing as the form of hopsca); a lack of the regional architectural characteristics of Yunnan, and a failure to strengthen the benign social functions of urban villages.

According to the statistical data relating to urban villages and projects in Kunming, there are three main characteristics of urban village renovation projects in Kunming, which are: large quantity, concentrated distribution and quick construction. Under these circumstances, extensive amalgamated dwellings as the main residential products in urban village renovation projects have been launched onto the residential market in a very short time. The sudden rush of residences into the area has put a great stress on the consumption ability of the housing market. In comparing the profit margins, the expected returns for large-scale commercial facilities are usually much higher than for residential constructions. Some commercial districts have appeared within the relatively closed urban village renovation projects, which cause homogenization and also put great pressure on the housing market. Urban construction, with similar mixed commercial and residential properties but without proper diversification, can potentially make urban village renovation projects into urban built-up areas resembling other cities. In addition, in the face of housing market demand, only modem residences with a western architectural style may be popular and attractive to housing purchasers. Due to the lack of cultural cognition or development of regional architecture, a cultural decline and a loss of humanistic spiritual bonds are becoming more and more obvious in recent years, which may possibly obscure the local culture itself. Before the transformation projects, the urban villages of Kunming did have a benign social function which could help the local government to accommodate large numbers of migrant workers when they were suffering from the huge shortage of low-rent housing, which should have been provided by local government.

The problems mentioned above are common characteristics of the implementation methods of urban village renovation projects of Kunming in recent years. Referring back to the questions that the researcher has raised in this paper, the newly-built residential areas created by the urban village renovation projects will still be the rebuilt urban villages in many years time, and it is likely that these concerns will remain, because the current implementation methods of urban village renovation projects just provide local residents with a place to stay, not a place to live.

Following the concept of creating mixed-used urban developments on a sustainable scale, the urban village in the UK represents an urban form with medium density development, mixed use zoning, the provision of good public transport and an emphasis on urban design - particularly the creation of pedestrian and public space. The urban village renovation projects of Kunming should provide an alternative to the recent patterns of urban development, which purported to: reduce car reliance and promote cycling; promote walking and public transport use; provide a high level of

self-containment (people working, enjoying recreation and living in the same area), and help facilitate strong community institutions and interaction. In the master plans of the two case studies, it is hard to find any such design approaches in the urban village renovation projects, which means they still have other options, and could still aim to make things different.

4.1.3.2 Suggestions for a master plan with sustainable features

Through these two case studies, and with reference to previous discussion about urban villages in China and sustainable urban design, as an inevitable result of urban development in the special institutional background of China, the research question became how to improve the situation in a proper way rather than dismissing it. The analysis of these two case studies has pointed out that the current fixing methods, although popular and acceptable to the key stakeholders, developers and experts both from government and design institutions involved in the urban village renovation projects, have weakened the spiritual and even material features of traditional culture. Accordingly, through research and a detailed understanding of a range of theories relating to sustainable urban design, especially the urban village concept of the UK, the clear weaknesses in the fixing methods of urban village renovation projects in Kunming can be improved, and a new design guideline can be generated to make urban village renovation more sustainable.

For better understanding of the renovation direction of the urban village, the analysis has illustrated the status quo of the urban village before the renovation projects, and the worries about the future of the urban village and its inhabitants are listed as follows:

1. The migrant population, who live in the disordered living environment of an urban village, has no sense of responsibility for, or of belonging to, where they live.

2. For landless farmers who have become an urban household, the lack of non-agricultural labour skills makes it hard to survive in the modern city and also to adapt to a different life-style; they also have reduced rental income.

3. The poor quality of current residences creates a high risk of hidden trouble and a need for greater disaster prevention in the design of new and old buildings.

4. There is a possibility of losing original cultural characteristics by increasing the migrant population.

5. The current urban village has the chance of transforming into a real slum if it has no enforced renovation project.

6. The big changes to the traditional village pattern may cause the villages to lose their own identity.

7. The huge wastage in land use in an urban village is not suitable for the process of rapid urban development.

After the urban village renovation projects with the current fixing method, some of the worries have been solved to some extent, but due to the consistency of the fixing method, some new problems have been brought into the new residential areas:

1. The city will lose its unique characteristics by having similarly-built residential communities which have been built simultaneously in a very short time.

2. The commercial housing and compensation housing are strictly separated within the same urban residential district, which also separates urban and rural communities with an invisible boundary. A new culture conflict will be formed because of this unfilled urban and rural gap.

3. The essential problems of the urban village would not be solved by taking the general design methods of an urban residential district, which still have the chance to restrict urban development in future generations.

4. Some aspects of residential area operation have been affected by the increase of the floor area ratio, for example: by increasing residential density; a depressed degree of living comfort, and great stress on the use of the sport and fitness centres, children¡s activity areas, entertainment centres, as well as the lifts and fire escapes in residential buildings.

5. The lifestyle and ideological understanding of local residents in urban villages cannot be changed by replacing a rural residence registration with an urban residence registration.

By researching sustainable urban design principles and the current policy of urban village renovation in Kunming, some practicable improvements have been generated as follows:

1. At the stage of place shaping, it must be ensured that the new development draws from local context and heritage. To improve the identity and diversity of a city, we should avoid identical newly-built residential communities built simultaneously.

2. A good community development should support a flourishing new community which can integrate with surrounding areas, and avoid creating actual or perceived ¡gated¡ communities; use of mixed building will enhance the communication between urban and rural residents.

3. The introduction of new commercial forms should provide opportunities for

businesses to locate, in order both to serve the locality, and to provide jobs for people living in and around the development; meanwhile, enhancing the inward investment and local employment will help local and surrounding residents to get involved in the newly-built modern residential community easily.

4. Although there is no great loss of profits between developers and local residents by increasing the floor area ratio, the impacts on urban operation do exist and it is also the main cause of city disease. To reduce the possibility of a newly-built residential area turning into a new urban village, medium density development with an acceptable lower floor area ratio would be the proper choice.

5. Other improvements would include: a sufficient, sound social security system; a unified employment system combining rural and urban opportunities; providing free employment training, and providing local employment opportunities and knowledge sharing.

This chapter has encompassed the characterization and analysis of two cases of urban village renovation projects, which started their construction process in 2010. Details of the design and planning methods have been discussed, and suggestions promoting a new theory of how to achieve sustainable design and planning methods for urban village renovation have been proposed, through the analysis of current design and planning methods considered along with sustainable development issues. Furthermore, the views of key stakeholders, developers, architects and city planners have been collected through the questionnaire survey, and all the responses have been analyzed in detail in the following chapter, which clearly illustrates the greatest concerns of all the stakeholders and the real status quo of urban villages in Kunming.

Chapter 05: Survey

Fig.5.1 Street culture of old Kunming city [online image] Available at: <http://misc.clzg.cn/forum/day_081102/20081102_1aa228a6d9e974de9868BbgYEZET6zMT.jpg> [Accessed 11 October 2011]

Chapter 5 Survey

5.1 Introduction

Urban village in Kunming is a long-standing issue that affects people from all social strata. It can be defined as a livelihood issues because urban village projects were related to the fundamental needs of all surrounding stakeholders. In the process of design and decision-making of city planners and government, the renovation project of urban village in Kunming is a proof of social responsibility. As a matter of fact urban renovation needs vast investment input, hence government needs investment from developers who has capability to treat complex social relationships and assume social responsibility. Stakeholders should be the beneficiary during the process of project and the results of urban renovation should meet the needs of urban residents around the original area.

This chapter illustrates the process of survey and the conclusion of questionnaires. In the following section, questionnaire design is placed in the first position. It describes the questionnaire design and reasons why they should work like this. During the investigation process, a number of difficulties do exist hence in the section of methodological limitation listed all the difficulties encountered during the ongoing work. In the next section it illustrates details of survey sample which included the sample size, classification characteristics and selection criteria. After collecting all the returned questionnaires, and summarizing all the survey results, residents¡ concerns, decision-makers¡ responsibility and surrounding residents¡ views are discussed in the final analysis.

5.2 Questionnaire design

The total questionnaire is divided into three parts: key stakeholders, developers, and architects and city planners. The key stakeholders section includes four groups of stakeholders who played important roles during the urban village renovation project. These four types of key stakeholders are: Current residents, Tenants, Surrounding residents and Relocatees, and in order to get a nearly 100% response rate, the researcher adopted the methods of sending or personally issuing questionnaires during the process of the survey. In the process of an urban village renovation project, views from current residents are the primary keys to starting the project successfully. In the group of Current residents, the main survey questions were related to: basic information about the local residents; the status quo of their urban village; the residents¡ views of the urban village renovation projects; their perception of local culture, and the residents¡ expectations of the new residential community. During an urban village renovation project, understanding the needs and expectations of current residents can directly lead the project to develop in a way which is more acceptable and desirable. In order to improve the urban function and improve the area¡s image, a large number of urban villages are listed as urban renovation projects, but the actual

project will be implemented in subsequent years. In the process of urban village transformation, the private profits of local residents from rental income, and the huge demand for low-rent houses, have attracted lots of attention. Landless farmers make their living by collecting rents from migrant workers, who considered that the low-rent housing in the urban villages of Kunming were their only choice when they started their lives in the city. Because of this, if the demand for low-rent housing is not dealt with appropriately, problems will arise in the form of a series of social and livelihood issues, which cannot easily be solved in terms of architecture and urban design. Therefore, for the group of Tenants, a series of survey questions was created regarding their needs and expectations, and the concerns of landless farmers and migrant workers. There is a certain link between surrounding residents and the population structure, functional arrangements and the living environment of urban villages in Kunming; therefore in the group of Surrounding residents, their views and perspective regarding the urban villages, local culture and traditional lifestyle were collected and discussed. In 2008, the first urban village renovation project, named ¡Shang Dong city¡, was completed. This was the first time that the government of Kunming had tried to proceed with an urban village renovation project, and it was also a great challenge to find an appropriate design and planning method for it. One way to improve ideas for a development method is to collect the residents¡ views on what they feel about living in a new residential community. This is what the fourth group, Relocatees, would do. Key stakeholders are the most important part of an urban village renovation project; once we understand their concerns and needs, the development method for the project can meet their needs and make the new residential community more sustainable.

Developers, as the second part of the survey, also play an important role during the urban village renovation project. Completing a project is not even half of the developers¡ responsibilities; more importantly, the urban construction, regional economic development, and improvement of social infrastructures have to be carefully considered during the positioning process of the project. In this group, the responsibilities of the developer, the project orientation, as well as their expectations, were collected and discussed.

For the group of Architects and city planners, the questionnaires set a number of open questions and aimed to understand what the experts suggested directly. During different projects, architects and city planners will face different problems and have a chance to explore ways of dealing with the ¡urban disease¡ caused by rapid urbanization.

The study was approached by using a semi-structured questionnaire. The form of the questionnaire included both closed and open-ended question for all three groups. The open-ended questions inquired about subjective ideas related to understanding of local culture by individuals, and also directly assessed the needs and concerns of stakeholders, developers, architects and city planners. The closed questions

investigated the degree of satisfaction with the existing situation, and expectations regarding the living environment from both residents and migrant workers. The main target of these groups of questionnaires was to collect and analyze the views of key stakeholders, developers, architects and city planners, and to work out how to improve the development methods of the urban village renovation projects. Based on the survey data, the conclusions with regard to how to improve and modify these development methods will be listed at the end of this chapter.

5.3 Survey difficulties

As a matter of fact, urban village renovation is a livelihood issue which relates to different stakeholders and will face complicated social problems during the process of the project. During an investigation of the status of an urban village, it is common for researchers to visit a number of typical sites to find groups of respondents. Due to the complexity and cultural diversity of the urban villages of Kunming, visiting suitable residential stakeholders in an urban village can be a big challenge to researchers. Some of the current residents with a low level of education did not seem to be keen to accept the questionnaire survey and, due to the transformation of most of the urban villages being under way, it was difficult to find enough relocatees from the original urban villages quickly within a limited time. For those residents who had not received a good primary education, it took time to explain all the questions and record their answers. As a result, due to different interpretations of the questions and a flexible situation, there were always some unexpected elements, and this was unavoidable.

5.4 Sample size, characteristics and selection criteria

This study was conducted in the urban villages of Kunming and adjacent localities. The sample size for each group was set at 20, which covered respondents from all age groups and educational levels. A sample of 20 experts from different design institutes and government offices had been selected previously, based on their level of involvement with urban village renovation projects in Kunming, as shown through both closed and open-ended questionnaires in April 2011. A sample of 20 developers from different ongoing projects had also been selected previously, based on their processing of projects; most of their projects were ongoing, and most of the developer respondents were from the project discussed in the case study in Chapter 3. In terms of key stakeholders, the sample size for each sub-group was also set at 20 and the respondents for each sub-group were selected by following a strictly defined investigation range. A summary of the investigation procedures, sample methods and procedures is listed as follows (**Fig. 5.2**):

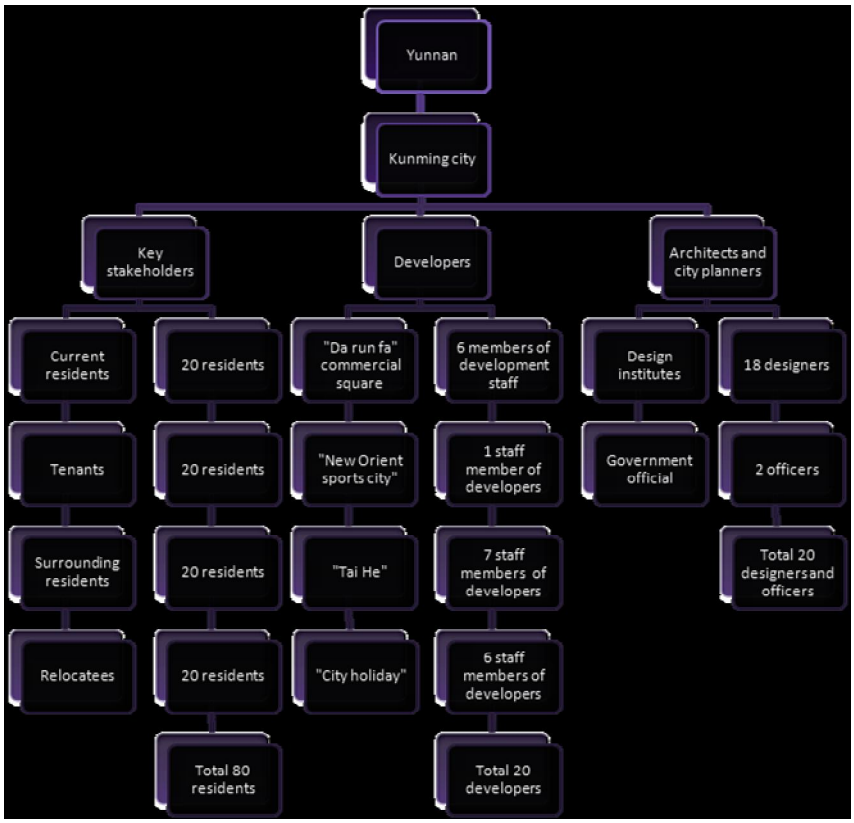


Fig. 5.2 Sample methods and procedures

5.5 Content Analysis

The survey included different types of social research methods for collecting and analyzing the information from key stakeholders, developers, architects and city planners, and these data were gathered in both written and oral form. Content analysis is a well-established research methodology commonly used in the social sciences to analyze communications during a survey (Holsti, 1969), with a wide range of use and responsive capability in a flexible situation. In order to work out the concerns, needs and expectations of key stakeholders, developers, architects and city planners, questionnaires with both closed and open-ended questions were sent out among residents to investigate the primary data, in anticipation of some real and vivid descriptions about urban villages in Kunming. This research was conducted by involving both primary and secondary data, and information about the research area, along with the selected case studies in urban villages of Kunming, China.

In the following chapter, numbers of survey results will be discussed in details. This chapter mainly contains three parts of survey: key stakeholders, developers, and architects and city planners. The survey results in each part will be represented by tables and bar charts with detailed analyses and discussions, which will demonstrated the status quo of urban villages in Kunming visualized and comprehensible.

Part 3: Results discussion and conclusions

Chapter 6: Results discussion

6.1 Analysis of questionnaires

In this section, the whole body of questionnaire analysis has been divided into three parts. There are four groups-current residents, tenants, surrounding residents, relocates in new community-in the first part of analysis. Views and concerns of urban village renovation projects from key stakeholders have been represented in tables and discussed with details. By standing at the perspective of developers, their ambitions have been shown by the survey results of what they can contribute for the society, and also what they can achieve by the means of their financial strength. In the third part of analysis, views from architects and city planners of how the decisions will be made and how the projects will be implemented, will be discussed with survey details that represented in the following tables and bar charts.

Part 1: Key stakeholders

Group 1: Current residents

a. Socio-demographic information

The local respondents were grouped according to seven socio-demographic factors as shown in table 6.1. It shows that the majority of the respondents were male (60%), and the most common age group was 31-40 (40%). Most of the respondents held an urban household registration, and the percentage of this group of residents was 55%. By contrast, the percentage of those with rural household registration was 40%, which was relatively close to the percentage of urban household registration (55%). The educational background of the residents showed significant features, in that 75% of current residents had received a secondary school education, and a few of them had achieved higher education (University: 20%, Higher: 5%). As a result of the implementation of urban village renovation projects, a number of residents (75%) had become relocatees. Meanwhile, current local residents who had already lived in the urban village for 30-50 years accounted for 40%; the percentage with a length of residence of 20-30 years was 30%, and 5% of residents had lived there for over 50 years. On the issue of sources of income, 50% of residents there had a permanent job, whilst 40% of residents relied on collecting rents to make a living in the city.

From this socio-demographic table, the statistics showed that although most of the residents in urban villages of Kunming had already obtained an urban household registration, their educational level had stayed at a relatively low level, and most of them were middle-aged. Due to the process of the urban village renovation projects, a number of residents who had lived in the current urban village for 30-50 years had become relocates, and would face the risk of moving or losing most of their source of rental income.

Table 6.1 Residents sample characteristics: demographic profile of residents

(N=20)

Gender			%
	Male	12	60
	Female	8	40
Age			
	15-20	1	5
	21-25	3	15
	26-30	4	20
	31-40	8	40
	41-50	2	10
	51-60	2	10
Household type			
	Rural area	8	40
	City	11	55
	Outside Kunming	1	5
Educational background			
	Primary school	0	0
	Secondary education	15	75
	University	4	20
	Higher	1	5
Relocatees?			
	Yes	15	75
	No	5	25
How long have you lived here?			
	Less than one year	0	0
	1-5 years	1	5
	5-10 years	1	5
	10-20 years	1	5
	20-30 years	6	30
	30-50 years	8	40
	Over 50 years	1	5
Source of income			
	A permanent job	10	50
	Retail trade	5	25
	Collecting rents	8	40
	Parents	0	0
	Worker	2	10
	Other	4	20

b. Survey questions analysis

In order to directly understand the needs of current residents in urban villages, a

number of questions were set, as may be seen in in Table 6.2, to discover the current residents¡ views about the urban village renovation projects. There were lots of reasons for current residents to support the urban village renovation projects, such as improvement in their living environment (65%); improvement of their quality of life (60%); integration into city life (60%), and improved social infrastructures (60%). Some opposition factors were also raised, regarding their views about maintaining their lifestyle in the urban village (25%), and the respondents also showed their concerns about the uncertainty of compensation methods (15%). 10% of current residents were concerned about their sources of rental income, and 5% of current residents had concerns about the pressure on migrant workers in the city caused by increasing rents. A low standard of compensation (65%), and current residents not wanting to leave their original living environment (65%), were the two main reasons why current residents did not support the demolition process during the urban village renovation. Due to their limited source of income, 55% of current residents in urban villages could not afford a new house in other residential areas of Kunming. 55% of current residents in urban villages enjoyed the atmosphere of traditional community life and a harmonious neighbourhood within their urban village, and 50% of current residents had their private house property there; these were the most important reasons why they had insisted on living in an urban village. 70% of current residents claimed that community health was not good enough, and that this was a problem bothering them during their daily life. 80% of current residents were satisfied with the situation regarding public security in their urban village. The urban village was the home town for 75% of the current residents, and 30% of the current residents regarded it as their long-term residence. In terms of collecting opinions from current residents, most of them claimed that government departments did not sufficiently collect their views regarding the urban village renovation projects. 45% of the current residents showed strong interest in the decision-making during the project, but 50% of current residents claimed that they did not have much concern about the decision-making, and 5% of current residents were even unwilling to participate in any decision-making.

From the table below, some key viewpoints can be seen regarding this part of the survey. Some of the current residents showed their support for the urban village renovation project, but the rest of them did not. In terms of the different perspectives and concerns, most residents who stood on the supportive side wished to live in a community with a fine living environment, a good quality of life, integration with city life and improved social infrastructures; on the other hand, some of them were worried that the renovation project would impact on, or even change, their traditional lifestyle. From this viewpoint, it is clear to see that the basic infrastructure and residents¡ daily needs within the current urban villages still have lots of room for improvement, but that current residents were also worried about a change of lifestyle from the familiar living environment that they were used to. From the perspective of the residents¡ choices, the urban villages do have some advantages for the current residents to settle there. The private house property, convenient lifestyle, the fine

atmosphere of traditional community life and a harmonious neighbourhood were the main issues that concerned them regarding living in an urban village; and some problems of uncertainty, such as the standard of compensation for demolition, adapting to city life, and the lack of funding support, would be their worries during the demolition process. From the evaluation of the survey regarding health conditions and public order issues, the living environment of an urban village could meet the very basic needs for lots of residents, but in terms of meeting the needs for a future generation, it is hard to say whether the status quo would be maintained for a long time. In terms of needs, many residents claimed that their comments were not considered seriously by the government, and they also showed their keen desire to participate in the decision-making procedure during the project.

Table 6.2 Current residents¡ views regarding urban village renovation projects in Kunming

Reasons for supporting the urban village renovation project			%
	Improvement of living environment	13	65
	Improvement in quality of life	12	60
	Integrating into city life	12	60
	Improvement of social infrastructures	12	60
Reasons for opposition to village renovation project			
	Effect on people's lifestyle	5	25
	Unsatisfactory and uncertain compensation	3	15
	Effect on rental income	2	10
	Increase in rents puts lots of pressure on migrant workers.	1	5
Reasons why villagers do not support demolition			
	Low standard of compensation	13	65
	Do not want to leave the original living environment	13	65
	Unable to buy a new house	11	55
	Have nowhere to settle down	3	15

Reasons why you chose to live here			
	Have own property here	10	50
	Convenient transport system	7	35
	Low rent	1	5
	Provision of conveniences for citizens	8	40
	Enjoy the atmosphere of traditional community life	11	55
	Convenient shopping place	2	10
	Harmonious neighbourhood	11	55
Evaluation of community sanitary conditions			
	Clean and tidy village	6	30
	Average	14	70
	Dirty, disorderly and poor conditions	0	0
	Other reasons		
Evaluation of security issues			
	Very satisfactory	1	5
	Satisfactory	16	80
	Unsatisfactory	2	10
	Very unsatisfactory	1	5
For you, the urban village is			
	My home town	15	75
	My long-term residence	6	30
	Temporary accommodation	2	10
	Other	2	10
In the urban village renovation project, has the government collected detailed views from villagers?			
	Yes	0	0
	To some extent	11	55
	No	9	45
Are you willing to participate in the decision-making process during the urban village renovation project?			

	Yes	9	45
	Not very interested	10	50
	No	1	5

In order to understand the current problems and unique characteristics of urban villages from the residents¡ perspective, a survey of existing problems and unique features of the urban villages was also made in this part, as set out in table 6.3. 65% of current residents claimed that the population of their urban village was mixed and complicated, and that the self-built rural houses affected the living environment; as a result, 55% of them complained strongly that they did not have enough green open space in their urban village. Due to the lack of basic social infrastructures, 50% of current residents had problems with sending their children to school and seeking a medical service nearby. 45% of current residents had the consensus that poor living conditions; hidden dangers in terms of fire risks; the lack of social infrastructure; noise; residential lighting; the hidden dangers of ¡handshake buildings¡, and the lack of car parking spaces were common problems in urban villages. On the issues of daily life in urban villages, difficulties with water and electricity services still existed among 35% of current residents, even though they were living in an urban village located within a modern city. On the issue of traffic problems, 30% of current residents complained about the inconvenience of shopping and traffic congestion.

On the unique characteristics of urban villages, 80% of current residents said that they enjoyed a harmonious neighbourhood in their urban village; 40% of them said they could not live without a private single family dwelling, or the temples and monasteries which had been passed on from generation to generation; ancient trees (30%), flowing rivers (25%) and traditional festival activities (20%) were also favourite features which were important in the minds and memories of residents.

From the table below, the current problems and unique characteristics of urban villages are becoming clear, and should be able to guide the urban village renovation projects towards forming a new residential district in an acceptable and environmentally-friendly way. The projects must pay more attention to common issues, which needed to be solved in the first place to meet basic needs. In terms of unique characteristics, a harmonious neighbourhood with a spirit of community can fully represent the culture of a region, which should be identifiable and confluent. Typical ancient buildings, no matter whether they are private or public property, are also a source of spiritual sustenance for local residents. Making full use of old and potentially ancient buildings should become a positive challenge for developers, architects and city planners, to unite old and new in urban village renovation projects.

Table 6.3 Problems and unique characteristics of community

Existing problems in urban villages			

	Inconvenience of shopping	6	30
	Inconvenience of water and electricity services	7	35
	Poor living conditions	9	45
	Inconvenience of getting to schools or hospitals	10	50
	Hidden dangers in fire risks	9	45
	Lack of ¡green¡ environment	11	55
	Complex population	13	65
	Lack of social infrastructure	9	45
	Impact of noise and lighting problems	9	45
	Self-built rural housing affecting the living environment	13	65
	Hidden dangers of ¡handshake building¡	9	45
	Having insufficient space for car parking	9	45
	Traffic jams	6	30
	Other issues		
Favourite features in the community			
	Flowing rivers	5	25
	Ancient trees	6	30
	Private single family dwellings	8	40
	Temples and monasteries	8	40
	Traditional festival activities	4	20
	Harmonious neighbourhood	16	80

A number of human activities in urban villages which may impact on climate change are listed in table 6.4. 95% of current residents claimed that the urban villages where they lived had a running water network, and only one resident lived in an urban village without a good running water supply; the same percentage emerged with reference to the urban power network. 60% of current residents were worried that the urban villages where they lived had no natural gas pipeline. 15% of residents complained that water drainage in their urban village was very slow and made it

difficult to go outside on a rainy day (45%); 15% of residents also complained about the uncontrolled sewage in their urban village. There were also worries that wastewater could still be seen discharging into rivers (10%). In terms of domestic water supply, 85% of residents were satisfied with the water supply system in their community, and 60% of them used solar energy in their daily life.

From this table, the statistical data highlights some current issues which may influence climate change. The following problems still exist in most of the urban villages included in this investigation: water drainage which requires improvements; some waste water still discharging into rivers, which will endanger the natural environment, and urban pipeline networks still needing improvement in some urban villages.

Table 6.4 Issues of Climate Change

Is there a running water network here?			
	Yes	19	95
	No	1	5
Is there an urban power network?			
	Yes	19	95
	No	1	5
Natural gas pipeline?			
	Yes	8	40
	No	12	60
Water drainage?			
	In good condition	6	30
	Slow drainage	3	15
	Difficult to go outside during rainy day	9	45
	Uncontrolled urban sewage	3	15
Does urban waste water discharge into rivers?			
	Yes	2	10
	No	16	80
Your assessment of water quality?			
	Very satisfactory	2	10
	Satisfactory	15	75
	Unsatisfactory	2	10
	Very unsatisfactory	1	5
Is solar energy available?			
	Yes	12	60

	No	8	40

To understand what kind of building materials are usually used in building urban villages, issues of resource utilization are tabled in 6.5. 75% of buildings in urban villages were of a brick-concrete structure; concrete (95%), metal (65%), stone (45%), glass (45%), wood (35%), engineering plastics (35%), and composite materials (20%) were the common building materials in urban villages. On the issues of waste recycling, 75% of urban villages had no waste classification management.

From this table, the statistical data shows that most of the buildings in urban villages are brick-concrete structured, and the building layout in urban villages consists mainly of multi-story and low-rise buildings. In terms of building materials, concrete is the most common building material used by residents to build self-built rural houses. After the demolition of shabby buildings, construction and demolition waste can be used by resource recovery as new building material to construct buildings. On the issues of domestic waste-sorting collection, there is no formal management of domestic waste in urban villages, which makes the living environment messy and disordered.

Table 6.5 Issues of resource utilization

Building structure			
	Brick-wood structure	1	5
	Brick-concrete-structure	15	75
	Frame construction	4	20
Building materials			
	Wood	7	35
	Bamboo wood	0	0
	Stone	9	45
	Concrete	19	95
	Metal	13	65
	Tile	5	25
	Glass	14	45
	Engineering plastics	7	35
	Composite materials	4	20
Domestic waste-sorting collection?			
	Yes	5	25
	No	15	75

The whole survey also focused on residents¡ travel and lifestyle habits (table 6.6). Regarding the lifestyle habits of residents, 45% of them liked to stroll around where they live; 25% of them were in the habit of doing morning exercises in a nearby open space; 20% of them liked to go to an open market and have a chat with their neighbours, and 5% of them often went to the gym or walked the dog. In relation to

recreation facilities available nearby, 55% of current residents had tables and chairs available in the park for sharing; 35% of them enjoyed the public fitness equiment arranged in or near their urban village; 15% of them quite enjoyed the paths in green landscapes, and 10% of them said they would like to have a playing court in or near their urban village. Due to the lack of green landscape in urban villages, it would take 45% of current residents at least 30-60 minutes to get to the nearest green space. In terms of public transport around urban villages, 80% of current residents claimed that the public transport was very convenient for people living there. Apart from public transport, the choice of vehicles for current residents consisted of three main popular options: bus (55%); private car (55%), and electric motor car (40%). Other vehicles, such as bicycle (25%), motorcycle (10%) and taxi (15%), were relatively less popular than the other three types of vehicle.

From this table, the statistical data shows that residents of urban villages would like more open space, to offer them health benefits through exposure to a natural environment within the urban village itself. In consideration of the convenient public transport around the urban villages, restricting the number of private cars in urban villages would be a way to reduce the pressures of local transport. To encourage a low-carbon lifestyle, bicycle travel should be encouraged and more widespread.

Table 6.6 Issues relating to residents¡ travel

Habits and customs in your daily life			
	Morning exercise	5	25
	Stroll	9	45
	Going to an open market	4	20
	Chatting with neighbours	3	20
	Going to the gym	1	5
	Walking the dog	1	5
Available recreation facilities			
	Footpaths	5	25
	Tables and chairs in the park	11	55
	Public fitness equipment	7	35
	Playing courts	2	10
	Other	3	15
Time to get to nearest green space from home			
	15 minutes	5	25
	15-30 minutes	2	10
	30-60 minutes	9	45
	Above 60 minutes	4	20
Evaluation of public transport			

	Very convenient	3	15
	Convenient	13	65
	Inconvenient	3	15
	Very inconvenient	1	5
Preferred vehicle options			
	Buses	11	55
	Bicycle	5	25
	Electric motor car	8	40
	Motorcycle	2	10
	Private car	11	55
	Taxi	3	15

As can be seen in table 6.7, some issues arose relating to ecology and the environment from the perspective of the current residents. Most of the respondents claimed that plant growth around the community was maintained in good condition (above average level, 90%); because of the dense vegetation all the year round in Kunming, which has a semi-tropical monsoon climate, the most beautiful season in Kunming, according to residents, is the Summer (35%). On the evaluation of physical and psychological comfort relating to green space in the community, the main distribution of comfort degree was average, which means that the development of green space is in an average condition and could still be improved. In terms of the air condition of Kunming, 95% of residents claimed that the air condition in Kunming was above the general level. On the issue of pollution, residents claimed that water (65%) and noise (85%) were the worst aspects of Kunming's pollution.

From table 6.7, the statistical data shows the ecological and environment issues from current residents¡ views. The ecological environment of Kunming remained at an average level in the view of current residents, and indeed there is some serious pollution caused by human activities (especially water and noise pollution). Relative to other cities of western China, the air quality in Kunming maintained a generally good condition, and the city¡s image of ¡Spring city¡ greatly impressed the current habitants of Kunming.

Table 6.7 Issues of ecology and environment

Condition of plant growth around your community			
	Very good	2	10
	Good	7	35
	Average	9	45
	Poor	2	10
	Very poor	0	0
The most beautiful season?			

	Spring	7	35
	Summer	4	20
	Autumn	7	25
	Winter	4	20
Evaluation of physical and psychological comfort of your community green space			
	Very comfortable		
		3	15
		4	20
		9	45
		1	5
		3	15
	Not comfortable		
Quality of the air?			
	Very good	2	10
	Good	7	35
	Average	10	50
	Poor	0	0
	Very poor	1	5
The most serious pollution?			
	Soil	3	15
	Water	13	65
	Air	4	20
	Noise	17	85
	Other	1	5

Six community issues are listed in table 6.8. In terms of the issue of migrant workers in urban villages, from the current residents¡ perspective, 55% of residents claimed that the process of migrant workers¡ children entering school has been solved properly, but 45% of them claimed that most migrant workers¡ children still have no proper school place. In the current residents¡ view, shortage of housing (85%); getting their children into a school (80%); employment difficulties (70%); difficulties in getting medical treatment (66%), and Social Security (60%) were also the greatest concerns of migrant workers. From the perspective of current residents, 60% of them were willing to treat migrant workers equally, and 40% of them did not want to talk to them too much. In terms of renting houses, 75% of current residents claimed that rented houses were in demand, and 25% of them complained that rented houses in urban villages were in great demand due to the increasing number of migrant workers. Facing the resettlement after the urban village renovation project, 100% of current residents desired to relocate to the original place where they had lived for a long time. On the issues of the lack of social infrastructures, supermarkets (75%); places of public entertainment (70%); community medical services (50%), and night lighting systems (20%) were the uppermost concerns of current residents.

From the statistical data in table 6.8, some existing problems in urban villages can clearly be seen from the perspective of current residents. Due to the lack of educational facilities in some urban villages, migrant workers¡ children have no chance of entering school to receive a primary education, which means they have lost the ability to compete in the modern city from the start. The shortage of housing as a major concern of migrant workers should be an extra force to stimulate current residents to create more living space to accommodate more people, which would supplement their income to compensate for the loss of farmland. Most current residents said they were willing to relocate in the same area after the urban village renovation project because they felt so involved with the land, as they had lived there for generations. In terms of social infrastructures, most urban villages lack supermarkets, places of public entertainment, community medical services and night lighting systems, all of which need to be improved during the urban village renovation projects.

Table 6.8 Community issues

Can children of migrant workers find school places easily?			
	Yes	11	55
	No	9	45
What do you think about migrant workers?			
	They should have equal treatment	12	60
	I do not want to communicate with them much	8	40
What kind of hot issues do migrant workers care about?			
	Shortage of housing	17	85
	The difficulty of getting medical treatment	13	65
	Employment difficulties	14	70
	Getting their children into a school	16	80
	Social Security	12	60
What is the demand for rented housing?			
	Little demand	0	0
	Average demand	15	75
	High demand	5	25

What kind of resettlement method would you like?			
	Resettlement in the original place	20	100
	Resettlement outside the place where you were living	0	0
	Monetary compensation	0	0
What kind of social infrastructure does the community lack?			
	Supermarkets	15	75
	Night lighting system	4	20
	Places of public entertainment	14	70
	Community medical service	10	50
	Other	1	1

Five issues related to place shaping are tabled in 6.9. On the issue of evaluation of the community, the common features of urban villages in Kunming were described as: densely populated (65%); convenient transport system (55%), and population mobility (45%); 35% of current residents claimed that commercial consumption around the urban villages remained at a very high level, and 25% of current residents considered that the district where they lived had a unique cultural atmosphere with a clear identity in terms of regional features. Regarding the inner commercial facilities of the urban villages, the communities where 75% of the respondents lived had no main commercial street, and 80% of respondents complained that there was no proper pavement or barrier-free design layout between residential clusters in their urban village. Due to the backward development of urban villages, low-rise buildings are the main building type, which means that the building density is too high and makes current residents feel crowed (65%); besides this, 25% of residents complained that some of the urban villages¡ spaces were too narrow and they felt under pressure living there. On the other hand, there was some positive feedback, in that small parts of urban villages still contained a traditional village code, which retained a suitable building scale and moderate density.

As shown in table 6.9, some common characteristics of urban villages can be verified from this survey. Most urban villages were surrounded by built-up areas of Kunming city, which had been better modernized than the villages for quite a long time. Influenced by the surrounding development, more and more migrant workers have been based in urban villages because of the convenient transport systems, job availability and affordable housing, which has led to the dense population as well as great numbers of floating population in urban villages. Owing to the lack of proper planning, urban functions and basic facilities in urban villages need to improve

effectively in order to adapt to social development and supply a better quality of life for residents. In terms of the experience of living in urban villages, high building density in most urban villages has made residents feel crowded, even oppressively so; but fortunately, small parts of urban villages in Kunming still contain a suitable building scale and moderate density, which offers the opportunity to avoid over-built areas and an absence of traditional village spirit.

Table 6.9 Place-shaping issues

What is your evaluation of your community location?			
	Population mobility	9	45
	Convenient transport system	11	55
	Densely populated	13	65
	High level of consumption	7	35
	Cultural atmosphere	5	25
	Other	0	0
Is there a commercial street in your community?			
	Yes	5	25
	No	15	75
Is there a barrier-free design in your community?			
	Yes	2	10
	No	16	80
	Do not know	2	10
Are there footpaths in your community?			
	Yes	4	20
	No	16	80
What is the building density in your community?			
	Suitable building scale and moderate density	5	25
	High density and a little crowded	12	60
	Narrow scale and a feeling of oppression	5	25

Three architectural issues are listed in table 6.10. Throughout a number of urban villages in Kunming, 50% of respondents pointed out that there were ancestral temples and traditional markets in their urban village, which still served current

residents well; 10% of respondents described how there were some ancient trees and traditional streets in their urban villages, which meant a lot for residents who had lived there for generations; 5% of respondents pointed out that their village still maintained a small number of Pagodas and other ancient buildings. In terms of current residential buildings, 35% of buildings had been used for 5-15 years; 40% of buildings had been used for 15-25 years; 10% of buildings had been used for 25-35 years; 5% of buildings had been used for 35-45 years, and 10% of buildings had been used for above 45 years. On the issue of demolition during the urban village project, at least 50 square metres of residential building area per resident, belonging to above 95% of residents, had been demolished. It is worth mentioning that at least 200 square metres of residential building area for each of 45% of the residents had been demolished.

From table 6.10, the statistical data shows that in fact old and new buildings co-existed in most urban villages in Kunming. Ancestral temples, traditional markets, traditional streets, ancient trees, pagodas and other ancient buildings still retained their main features which had been passed down through the generations, but due to the lack of management or protective measures, most of them had fallen into disrepair. In terms of ¡new¡ buildings in urban villages, most of them were built in the mid-1990s, which means that the building quality and environment were of a relatively low level. Stimulated by the huge demand for rental housing, current residents had tried every way to build, even creating extra space to accommodate as many people as possible. Therefore, on the issue of housing demolition during the project, developers are under pressure to balance their private profits with the costs of providing compensation houses for relocates, even though there is a compensation standard to calculate for the compensation building areas.

Table 6.10 Architectural issues

What kind of architecture do you have in your community?			
	Ancestral temple	10	50
	Pagoda	1	5
	Other ancient buildings	1	5
	Ancient trees	2	10
	Traditional streets	2	10
	Traditional market	10	50
How many years has your house been in service?			
	5-15 years	7	35
	15-25 years	8	40
	25-35 years	1	10
	35-45 years	1	5
	Above 45 years	2	10

What is the demolished building area per resident?			
	Less than 50 square metres	1	5
	50-100 square metres	4	20
	100-150 square metres	2	10
	150-200 square metres	1	5
	Above 200 square metres	9	45

Group 2: Tenants

The more fluid population of residents who rented houses in urban villages are tabled into six socio-demographic factors in table 6.11. It shows that most of the respondents were male, with a percentage of 75%. Residents of 21 ¨ 25 years of age accounted for 30% and this percentage is similar to that of the age group of 31- 41 years old (35%). Other age groups in this survey were in the minority. The educational background of temporary residents has significant characteristics, in that 85% had only received secondary school education, and few of them had achieved higher education (University: 5%, Higher: 0%). In the case of the employment status of tenants, the survey data shows that 85% of tenants already had a steady job in the city, and a few of them were doing other jobs, such as in retail or cleaning. In the survey of length of residence, 35% of tenants had lived there for 1 ¨ 5 years; the percentage of those having lived there 5 ¨ 10 years and 10 ¨ 20 years were both 25%; the percentage of those who had stayed 20 ¨ 30 years and 30 ¨ 50 years were 5% and 10% respectively, and no tenant in this survey had lived in their urban village for less than one year or for over 50 years. On the issue of sources of income, 70% of tenants had a permanent job, 25% of tenants were local retailers, and the remaining 5% of tenants relied on other jobs to maintain a living.

From this socio-demographic table, the statistics show that most tenant residents were in a middle-aged group, had a steady job in the city, but had only received a secondary education; this means that most of the tenant residents did not have enough financial means to live in a city, and their only reasonable options were the urban villages, which could provide affordable houses and a low level of consumption.

Table 6.11 Residents sample characteristics: Demographic profile of residents who rent house in the urban village (N=20)

Gender			
	Male	15	75
	Female	5	25
Age			
	15-20	2	10
	21-25	6	30
	26-30	1	5

	31-40	7	35
	41-50	3	15
	51-60	1	5
Educational background			
	Primary school	2	10
	Middle school	17	85
	University	1	5
	Higher	0	0
Are you¡ ?			
	University student	0	0
	Graduate	0	0
	Employed	17	85
	Unemployed	0	0
	Other	15	15
How long have you lived here?			
	Less than one year	0	0
	1-5 years	7	35
	5-10 years	5	25
	10-20 years	5	25
	20-30 years	1	5
	30-50 years	2	10
	Over 50 years	0	0
Source of income			
	A permanent job	14	70
	Retail trade	5	25
	Collect rents	0	0
	Other	1	5

Four factors have been listed in table 6.12 which represent tenants¡ views during the urban village renovation projects. For the reasons why the tenants chose to live in urban villages, some issues which might have influenced them are listed as follows: operational needs and social infrastructures within walking distance (90%); relatively low rental (80%); convenient transport system and the feeling of security (75%); improved social infrastructures around the urban villages (70%); high housing prices in other residential areas (25%), and personal preference (0%). Among the tenants respondents, above 80% of them had lived in urban villages for over 3 years. On the issue of affordable rentals, 55% of tenant residents could pay no more than 300 yen a month for temporary accommodation, and just a few of them (5%) were able to pay 1000-1500 yen a month for a room. Nearly 60% of tenant residents in this survey did not mind having to share a room with strangers.

From table 6.12, the statistics illustrate that urban villages do have some special urban functions that can solve a number of painful problems. Surrounded by urban built-up

areas, lots of migrant workers are centralized in urban villages for a number of job opportunities. For social infrastructures within walking distance, relatively lower rental, convenient transport and improved social infrastructures around the urban villages, there is no place better than urban villages for low-income migrant workers in or near urban built-up areas. With the rapid development of the city, more and more migrant workers have become centralized in the urban area, which has put tremendous pressure on the housing market and the situation has been worsened by the shortage of affordable housing built by the government. As a result, the urban villages have provided ¡extra spaces¡ for the increasing population of migrant workers. To some extent, the current urban villages do solve a number of livelihood issues which cannot be solved in a short time by the government.

Table 6.12 Tenants¡ views

Main reasons for considering the house renting location			
	High housing prices in other residential areas	5	25
	Operational need	18	90
	Personal preference	0	0
	Social infrastructures within walking distance	18	90
	Lower rental	16	80
	Convenient transport system	15	75
	Improved social infrastructures around the urban villages	14	70
	Feeling of security	15	75
How long have you lived in your rented house?			
	None	0	0
	Over 3 months	0	0
	Over 6 months	1	5
	Over one year	3	15
	Over 3 years	16	80
What level of rent would be affordable for you?			
	No more than 300 yen	11	55
	No more than 500 yen	3	15
	500-1000 yen	5	25
	1000-1500 yen	1	5
	1500-2000 yen	0	0
	More than 2000 yen	0	0

Would you be happy to share a house with someone else?			
	Yes	12	60
	No	8	40

Group 3: Surrounding residents

The respondents from local areas around the urban villages in Kunming are tabled into seven socio-demographic factors in table 6.13. It shows that the percentages of males and females were 45% and 55% respectively, and that most of the respondents were in the age groups of 31 ¨ 40 (30%) and 41 ¨ 50 (35%). The educational background of this group had a significant feature in that above 75% of residents had achieved a higher education and 95% of them had a stable source of income. On the issue of length of residency, 40% of residents had lived there for 10 ¨ 20 years, 20% of residents had lived there for 1 ¨ 5 years, and the percentages of those living there for 20-30 years and 30 ¨ 50 years were both 15%; few (10%) of them had lived there for 5-10 years, and no residents had lived there for less than one year or over 50 years. Due to the fact that the urban village renovation projects did not involve the surrounding residential areas, 85% of respondents were not relocatees, and the rest of them were likely to be relocatees who had moved there from neighbouring urban villages.

From this socio-demographic table, the statistics show that most of the residents who lived in areas around urban villages had received higher education at university, and had a steady source of income. Their life there was stable. Due to the impact of the urban village renovation projects, the urban village residents who had become relocatees have had to move out of their urban village and find another place to settle down temporarily; in this case, the surrounding residential area had become their first option because they were used to living in the area.

Table 6.13 Residents¡ sample characteristics: demographic profile of residents living around the urban villages in Kunming (N=20)

Gender			
	Male	9	45
	Female	11	55
Age			
	15-20	1	5
	21-25	3	15
	26-30	1	5
	31-40	6	30
	41-50	7	35
	51-60	3	15
Educational background			
	Primary school	0	0
	Secondary school	3	15

	University	15	75
	Higher	2	10
Relocatees?			
	Yes	3	15
	No	17	85
How long have you lived here?			
	Less than one year	0	0
	1-5 years	4	20
	5-10 years	2	10
	10-20 years	8	40
	20-30 years	3	15
	30-50 years	3	15
	Over 50 years	0	0
Source of income			
	A permanent job	19	95
	Retail trade	1	5
	Collect rents	0	0
	Other	0	0

There are three views from surrounding residents listed in table 6.14. On the perspective of understanding the main purposes of urban village renovation, 75% of surrounding residents claimed that optimization of the urban ecological environment, in order to improve the city¡s image should be the main purpose; they felt that protecting the city's traditional culture (55%) also played a important role in the projects; 45% of surrounding residents claimed that urban village renovation projects would enhance urban capacity and improve the urban services functions; 30% of them believed that renovation projects would make full use of existing urban infrastructures and improve the efficiency of land utilization, and 20% of them considered that urban village renovation was a livelihood project which would support the vulnerable groups and improve their living conditions. On the issue of protection, surrounding residents thought that architectural heritage (90%); traditional streets (75%); folk culture (70%); traditional markets (55%); traditional lifestyle and handicraft workshops (50%); vernacular dwellings (40%), and urban villages (19%) should all be considered for protection at different levels in the planning stages of an urban village renovation master plan. Some urban villages still contained traditional streets when the surrounding areas were in the process of rapid development. A number of older residents were in the habit of taking a stroll in traditional streets, attracted by the following reasons: historical culture (75%); interesting traditional markets (65%); shopping with friends (20%); to think about the old days (20%), or out of habit (20%), but not visiting relatives (0%).

In this part of the survey, views were represented about the main purpose of the urban village renovations, what problems the residents expected, and which should be improved through the projects. Provision of a better quality of life and urban

competence, optimization of the urban ecological environment to improve the city¡s image, and protection of traditional culture should be ways to contribute to the self-definition of Kunming city. To remind them of the old days, some residents still kept the habit of having a stroll down old town streets. Old buildings, traditional streets, folk culture, traditional markets and traditional lifestyle and handicraft workshops provided precious memories for those residents who had grown up in Kunming city. To continue the humanistic spirit, all these elements which relate to city memories should be researched and protected in the early stages of the projects.

Table 6.14 Surrounding residents¡ views

The main purposes of urban village renovation projects			
	To enhance urban capacity and improve the urban services functions	9	45
	To optimize the urban ecological environment, to improve the city¡s image	15	75
	To make full use of existing urban infrastructure and improve the efficiency of land use	6	30
	To preserve the city's traditional culture	11	55
	To support vulnerable groups and improve their living conditions	5	25
	Other	0	0
Urban village renovation projects should protect¡			
	Traditional streets	15	75
	Urban villages	2	19
	Vernacular dwellings	8	40
	Traditional markets	11	55
	Folk culture	14	70
	Architectural heritage	18	90
	Traditional lifestyle and handicraft workshops	10	50
	Other	0	0
For what reasons would you want to have a stroll in old street areas?			

	Shopping with friends	4	20
	Visiting relatives	0	0
	To think about the old days	4	20
	Habit	4	20
	For historical culture	15	75
	For interesting traditional markets	13	65

Group 4: Relocatees in new community

The local respondents who had already lived in the new community are tabled into seven socio-demographic factors in table 6.15. It shows that the percentages of males and females were 40% and 60% respectively, and the age of respondents in this group were widely dispersed. In terms of the relocatees, the percentage of relocatees who had already moved into a new community was 85%. On the issue of length of residence in Kunming, 35% of residents had lived in Kunming for 20-30 years, and the percentage of residents who had lived in Kunming for 30-50 years was also 35%. The percentages of residents who had lived in Kunming for 1-5 years, 5-10 years and 10-20 years were 5%, 10% and 15% respectively, and no residents had lived in Kunming for less than one year or over 50 years. Most of the residents had a source of income to make a living in the city. 45% of respondents relied on collecting rents to maintain themselves; 40% of respondents had a secure job; 35% of respondents relied on uncertain work and 25% of respondents were retailers. Regarding the reasons why the respondents were unwilling to move out of their original urban village, the survey data lists responses as follows: 55% of the respondents were unwilling to change their current living environment; 40% of the respondents could not afford a new house in other residential areas; 35% of respondents complained that the compensation standard was unacceptable, and 5% of respondents had nowhere else to live during the urban village innovation project.

From this socio-demographic table, the statistics show that when the urban village renovation projects are completed, the new community will mix the relocatees cluster and new residential clusters together. Most of the relocatees were unwilling to change their surroundings or original location, and therefore they accepted the relocation agreement and expected to continue to live in their current residential area, and they were still willing to rely on collecting rentals from migrant workers to support their life in the city.

Table 6.15 Residents¡ sample characteristics: demographic profile of residents who had already lived in the new community (N=20)

Gender			
	Male	12	60

	Female	8	40
Age			
	15-20	2	10
	21-25	3	15
	26-30	4	20
	31-40	4	20
	41-50	5	25
	51-60	2	10
Educational Background			
	Primary school	1	5
	Middle school	13	65
	University	6	30
	Higher	0	0
Relocatees?			
	Yes	17	85
	No	3	15
How long have you lived in Kunming?			
	Less than one year	0	0
	1-5 years	2	10
	5-10 years	1	5
	10-20 years	3	15
	20-30 years	7	35
	30-50 years	7	35
	Over 50 years	0	0
Source of income			
	A permanent job	8	40
	Retail trade	5	25
	Collect rents	9	45
	Other	7	35
Reasons why you do not want to move away during the process of the project			
	Not enough compensation	7	35
	Do not want to change my living environment	11	55
	Cannot afford a new house	8	40
	Have nowhere else to live	1	5

In table 6.16 below, seven issues are listed to demonstrate what relocatees felt about their living environment after removal into the new residential community. Above 70% of the relocatees were satisfied with the achievement of the urban village renovation project. In terms of residents¡ concerns during the urban village renovation

project, compensation standards (85%); the quality of housing and property rights after transformation (80%); time to remove into the compensation house (75%); increasing cost of living (65%); collective bonus (60%); sources of income after the urban village renovation project (60%); adapting to a new life in the city (55%), and rental income (50%) are highlighted in the statistical data, and the problems which need to be resolved properly were reflected clearly in this survey. On the issue of compensation from the government, above 60% of relocatees were satisfied with the compensation, but 30% of them were dissatisfied. Compared with their previous living environment, above 70% of relocatees were satisfied with their current living conditions. From the perspective of the relocatees, the following problems were solved well after the urban village renovation projects: poor living environment (75%); inconvenience of medical treatment (70%); inconvenience of shopping destinations (70%); fire security risks (70%); poor green environment (70%); a large amount of self-built housing which was out of control (70%); a large number of migrant workers (65%); lack of public facilities (65%); lack of parking spaces (60%); lack of educational facilities(55%); noise and lighting problems related to residential housing (55%); security risks of ¡shaking hands¡ buildings (55%) and traffic jams (55%). For these great advantages, some unique features of the urban villages may be sacrificed during the project. From the relocatees¡ viewpoint, a number of unique features, which represented the real tradition of Kunming city have disappeared to varying degrees; these include: a harmonious neighbourhood (70%); private messuage (65%); civil culture (60%); clean rivers (40%); traditional festival activities (40%); ancient trees (20%), and ancestral temples (15%). However, for the sense of ¡home territory¡ common among most of the local habitants, 95% of them chose to remove to the original location of the village where they had lived for generations.

From table 6.16, the statistical data from relocatees can be seen as a test of ¡acceptance¡ of the urban village renovation projects. Most of the relocatees were satisfied with the new residential area because a number of practical problems, especially the lack of basic social infrastructures related to the living environment have been solved well during the urban village renovation projects. For those relocatees who chose to move back to their original urban village location, clean rivers， ancient trees， private messuage，ancestral temples，traditional festival activities，a harmonious neighbourhood and civil culture were the unforgettable features, and also the reasons why they would not expect to live anywhere else. Yet as a matter of fact, after the urban village renovation projects using the current development methods, the urban villages have lost most of the original features which had maintained cohesion among local inhabitants.

Table 6.16 Relocatees¡ views

Degree of satisfaction with the urban village reconstruction project			

	Very satisfied	1	5
	Satisfied	14	70
	Dissatisfied	5	25
	Very dissatisfied	0	0
List of concerns			
	Compensation standards	17	85
	Length of time given to move into a compensation house	15	75
	Source of income after the urban village renovation project	12	60
	Employment	8	40
	Reduction in income	7	35
	Collective bonus	12	60
	The quality of housing and property rights after transformation	16	80
	Rental income	10	50
	Adapting to a new life in the city	11	55
	Increased cost of living	13	65
	Living environment after the urban village renovation project	0	0
Government compensation			
	Very satisfactory	1	5
	Satisfactory	12	60
	Unsatisfactory	7	35
	Very unsatisfactory	0	0
Are you satisfied with the current living environment?			
	Very satisfied	1	5
	Satisfied	14	70
	Dissatisfied	3	15
	Very dissatisfied	2	10
Solved problems			
	Inconvenience of medical treatment	14	70
	Inconvenience of shopping destinations	14	70
	Inconvenience of	8	40

	electricity and water facilities		
	Poor living environment	15	75
	Lack of educational facilities	11	55
	Fire security risks	14	70
	Poor green environment	14	70
	Large number of migrant workers	13	65
	Lack of public facilities	13	65
	Noise and lighting problems for residential housing	11	55
	A large amount of self-built housing which was out of control	14	70
	Security risks of ¡shaking hands¡ buildings	11	55
	Lack of parking spaces	12	60
	Traffic jams	11	55
Missing features			
	Clean rivers	8	40
	Ancient trees	4	20
	Private messuage	13	65
	Ancestral temples	3	15
	Traditional festival activities	8	40
	Harmonious neighbourhood	14	70
	Civil culture	12	60
Resettlement mode			
	Relocated in same place	19	95
	Resettlement in different place	1	5
	Currency indemnity	0	0

Part 2: Developers

The information relating to developers and their views of their urban village innovation projects is tabled into four factors in table 6.17 and the three bar charts listed as 6.18, 6.19 and 6.20.

Table 6.17 shows that the percentages of male and female developer respondents were 75% and 25%. 40% of them were in the age group of 41-50 years old. There was no

great difference between the size of the other two age groups; the age group of 31-40 accounted for 30%, and the 51-60 group accounted for 20%. The age groups of 21-25 and 26-30 years accounted for 5% each and no respondents were in the age group of 15-20. On the issue of level of understanding of the history and culture of Kunming, 85% of developer respondents felt that they understood the history and culture of Kunming to some extent, and the remaining 15% of developers said they had an in-depth understanding of the history and culture of Kunming. Another survey question related to the collection of residents¡ views during the urban village renovation project. 60% of developers responded that they had collected detailed opinions from local residents about the process of the urban village renovation project, and the remaining 40% of developers said they had collected general views from local residents.

From this table, the statistics show that most of the developers had shown respect for local history and culture, and had also attached importance to the feelings of local residents about their urban village renovation project.

Table 6.17 Information regarding developers and their views of urban village innovation project (N=20)

Gender			
	Male	15	75
	Female	5	25
Age group			
	15-20	0	0
	21-25	1	5
	26-30	1	5
	31-40	6	30
	41-50	8	40
	51-60	4	20
Cultural understanding of Kunming			
	A good understanding	3	15
	Some understanding	17	85
	Do not understand	0	0
Collection of villagers' views			
	Detailed information	12	60
	Some information	8	40
	None	0	0

Regarding the expectations of developers, five main aspects of project outcomes and their importance for developers are listed and shown in the bar chart below (table 6.18). The percentage for the first three aspects is similar, and each of them reached 55%, 60% and 55%. No developers claimed (0%) that the status quo of urban villages in Kunming was in good condition, while some of them would suggest that the

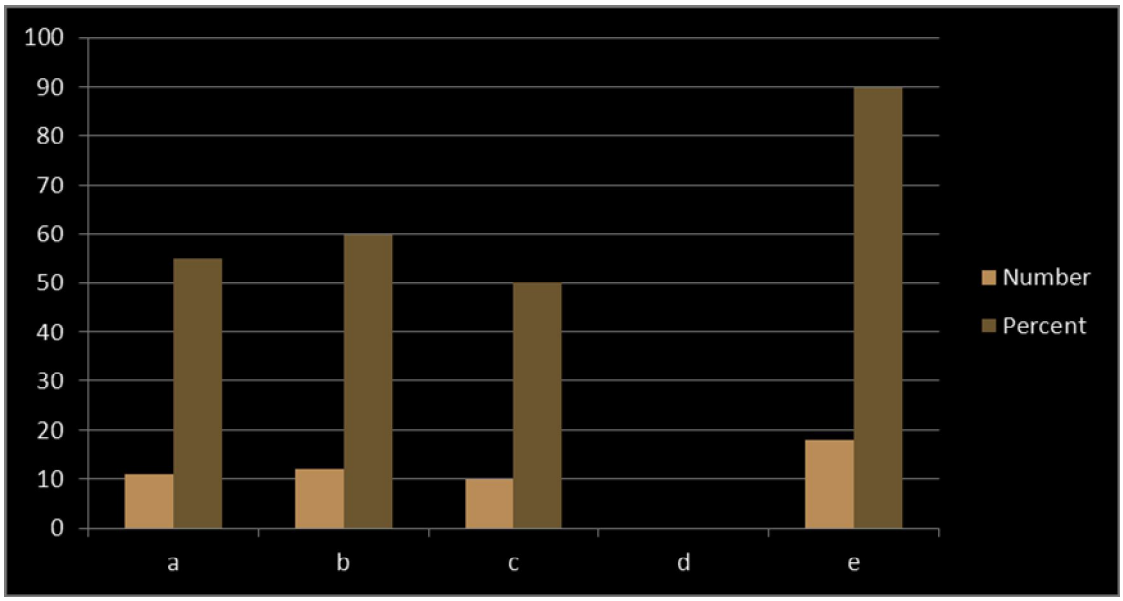
problems of urban villages could not be solved just by focusing on restoration, based on the condition of the original buildings. Nearly 90% of developers shared the idea that urban village renovation projects should be combined with commercial and residential development and considered as new landmarks within Kunming.

From this table and the accompanying bar chart, it is clear that developers expected that the urban village renovation projects should drastically transform the area and offer a good living environment to residents. On historical and cultural aspects, maintaining some buildings with historical value, showing respect for local culture and focusing on the traditional lifestyle of local residents should be the proper way to plan a new community. According to the survey of opinions regarding urban village status quo, it was felt that most of the urban villages in Kunming were not suitable for only partial restoration. Many long-established problems needed to be completely resolved. One of the most common expectations of urban village renovation projects for developers was combining the process with commercial and residential development to create a new landmark within Kunming.

Table 6.18 Expectations of developers

What's your expectation of urban village innovation project outcomes?			
	a. Change completely in form and give a fine living environment to villagers	11	55
	b. Maintain some of the old but potentially valuable buildings, and combine with ethnic and cultural identity to form new attractions	12	60
	c. Respect the local historical culture and focus on traditional lifestyle within new planning	10	50
	d. Focus on restoration based on the original condition	0	0
	e. Combine with commercial and residential	18	90

	development to create a new landmark		



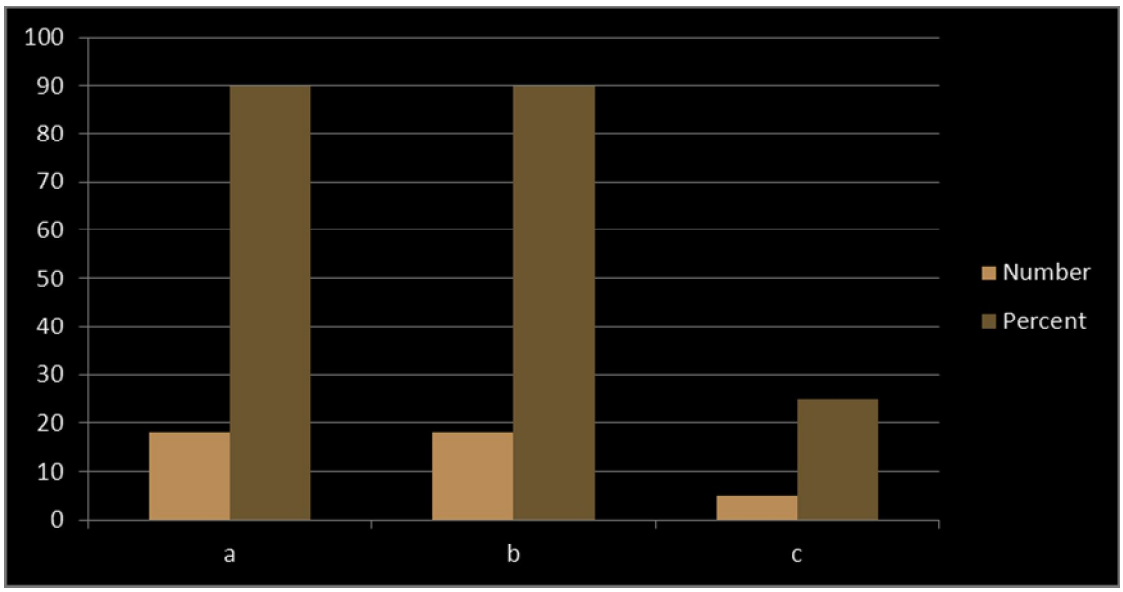
90% of developers claimed that, during the urban village renovation projects, the key points of the projects were the protection of historical and cultural blocks and characterful buildings, along with improving the living environment and the image of the city (see table 6.19). Only 25% of the developers focused on regional economic development, and enhancing the value of the land.

From this table and the bar chart which follows, the statistics show that most developers claimed that streets with historical culture and characterful ancient buildings were material carriers of the local culture of urban villages, and that the lifestyle of residents there was the spiritual carrier of human culture. Therefore, combining the material and spiritual carriers of culture during urban village renovation projects should be a good way for developers to protect and develop an urban village as a great community. As a long-term target, regional economic development and the value of the land should be the focus of a long-term improvement plan.

Table 6.19 Points of focus in urban village renovation projects

Points of focus in urban village renovation projects			
	a. Protection of historical and cultural blocks and characterful buildings	18	90
	b. Improving the living environment and the	18	90

	image of the city		
	c. Developing regional economy and enhancing the value of the land	5	25

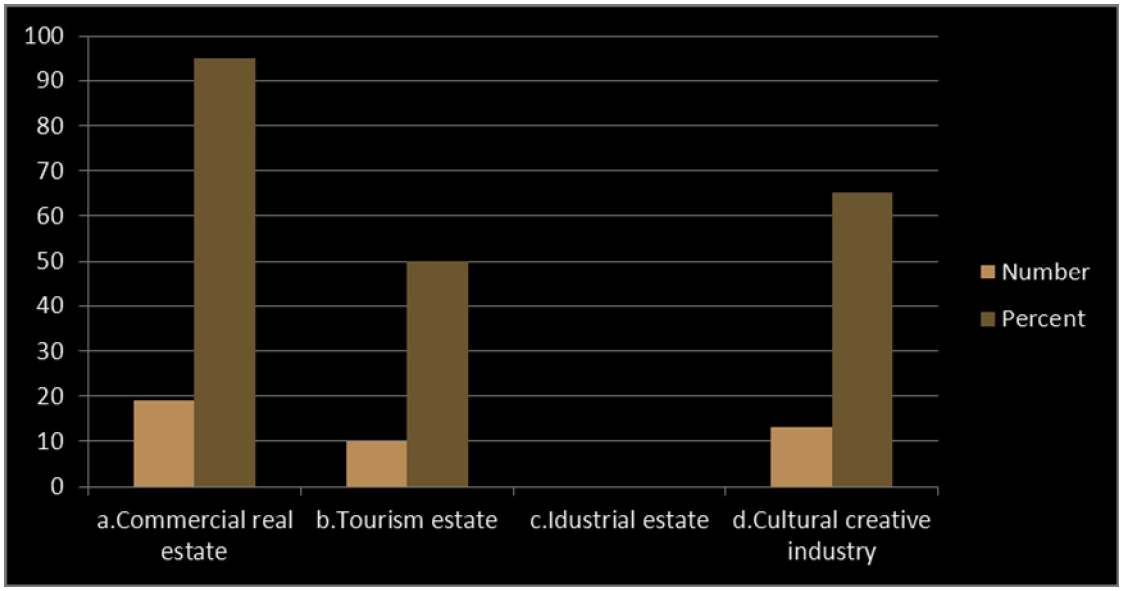


The type of urban industry should be placed at the first stage of urban village renovation project positioning. The developers¡ choice of urban industry is tabled into four factors in table 6.20. The statistics show that 95% of developers claimed that commercial real estate was the most appropriate urban industry for urban village renovation projects, whilst the creative and cultural industry also played an important role during the project, and 65% of developers suggested that it should be an option. In terms of tourism, 50% of developers suggested that an urban village could be developed as a tourist attraction in the context of a tourist city. Finally, no developers claimed that industrial estate was an appropriate direction for development.

From this table and the following bar chart, the statistics show that commercial real estate almost becomes the preferred option of developers, and it is also the most important reason for attracting developers. The commercial projects have gradually increased the property market of Kunming in recent years, and it leads one to wonder whether or not this increasing volume of business can be digested by the market of Kunming, and whether or not it is suitable to introduce a large commercial volume into every urban village renovation project. Kunming is a city with such a varied culture, and full of creativity, and therefore creative industries should be given a chance to develop the local culture and spread this unique culture to the world. In the meantime, Kunming is famous for its travel industry; parts of urban villages are suitable for tourism development, and they also have a great potential for becoming tourist destination areas.

Table 6.20 Choice of urban industry

The appropriate choice of urban industry			
	Commercial real estate	19	95
	Tourism	10	50
	Industrial estate	0	0
	Creative industries	13	65



Part 3: Architects and city planners

The architects and city planners¡ information and their views of urban village innovation projects are tabled into four factors in table 6.21, and eleven tables and bar charts listed as 6.22, 6.23, 6.24, 6.25, 6.26, 6.27, 6.28, 6.29, 6.30, 6.31 and 6.32.

Table 6.21 shows that the percentages of male and female architects and city planners were 65% and 35%. 30% of them were in the age group of 26-30 years old. 25% of them were in the age group of 21-25, and the same number appeared in the age group of 41-50. The percentage of architects and city planners in the age group of 31-40 accounted for 15%. There was only one respondent (5%) in the age group of 51-60. The third factor of table 4.22 represents the mode of urban village innovation project recommended by the experts. The statistics show that 90% of architects and city planners suggested that the mode of urban village innovation projects should be led by the government and market mechanisms should be introduced appropriately. In contrast, none of the experts claimed that completely introducing market mechanisms would be a valid choice for urban village innovation projects, whilst 10% of them were trying to approach different ideas regarding the models for transformation. In terms of the local traditional culture of urban villages, 100% of architects and city planners suggested that it was necessary for the government to set up a professional

sub-committee to research the local traditional culture during urban village renovation projects.

From this table and the following bar chart, the statistics show that most of the architects and city planners claimed that it was appropriate for the mode of urban village restoration in Kunming to be led by the government, with market mechanisms being introduced. In this way, the government can gain good opportunities for investment environments, developers will achieve fair profits, and local residents will obtain a nice living environment. However, the problems of migrant workers who settle down in the urban villages of Kunming have not been fully resolved. Therefore a few experts are trying to find new ways to improve the mode of urban village renovation. In the meantime, experts attach importance to the local traditional culture; they intend to set up a professional sub-committee to search and research the local traditional culture of urban villages in Kunming. Carrying on the cultural tradition is one of the ways for the villages to be self-contained.

Table 6.21 Information regarding architects and city planners, and their views of urban village innovation projects (N=20)

Gender			
	Male	13	65
	Female	7	35
Age			
	15-20	0	0
	21-25	5	25
	26-30	6	30
	31-40	3	15
	41-50	5	25
	51-60	1	5
Mode of urban village renovation project			
	Led by government and introducing market mechanisms appropriately	18	90
	Introducing market mechanisms completely	0	0
	Other	2	10
Necessity of researching the culture of urban villages			
	Very necessary	20	100
	Doesn't matter	0	0
	Not necessary	0	0

Seven key protection issues are listed in table 6.22, and their proportions are shown clearly in the bar chart which follows. 90% of respondents claimed that the most

important key protection issue was architectural heritage. The percentage in favour of protection of traditional streets was 85%. The percentage favouring the issue of local conditions, and customs and traditional handicrafts, was 80%, and the same percentage was in favour of protecting traditional lifestyles (80%). Vernacular dwellings (70%) and traditional markets (70%) gained a similar percentage. 55% of respondents claimed that historical stories of local villages should be counted as an issue for protection.

From this table and the following bar chart, the statistics show that the experts claimed that the protection issues listed are equally important. However, it is worth noting that the architectural heritage as a material symbol of culture was considered to be the most important protection issue. In urban villages of Kunming, it is easy to find old buildings such as temples and ancestral halls. They may not always be exquisite, but they are the inner sustenance of local residents. In terms of traditional life, traditional streets and local conditions, and customs and traditional handicrafts on the streets fully record the civil culture which belongs only to urban villages of Kunming. The vernacular dwellings and traditional markets around the traditional streets also truthfully record residents¡ daily lives in the urban villages. The historical stories and deeds which are spread among people are the history of the whole city, and shouldn¡t be forgotten. Put briefly, the key protection issues listed can be summarized into two aspects - material and spiritual, and these two carriers of traditional culture cannot be separated or exist independently.

Table 6.22 Key protection issues

Key protection issue			
	a. Traditional streets	17	85
	b. Vernacular dwellings	14	70
	c. Traditional markets	15	75
	d. Architectural heritage	18	90
	e. Local conditions, and customs and traditional handicrafts	16	80
	f. Lifestyle	16	80
	g. Historical stories and deeds	11	55
	h. Other	0	0

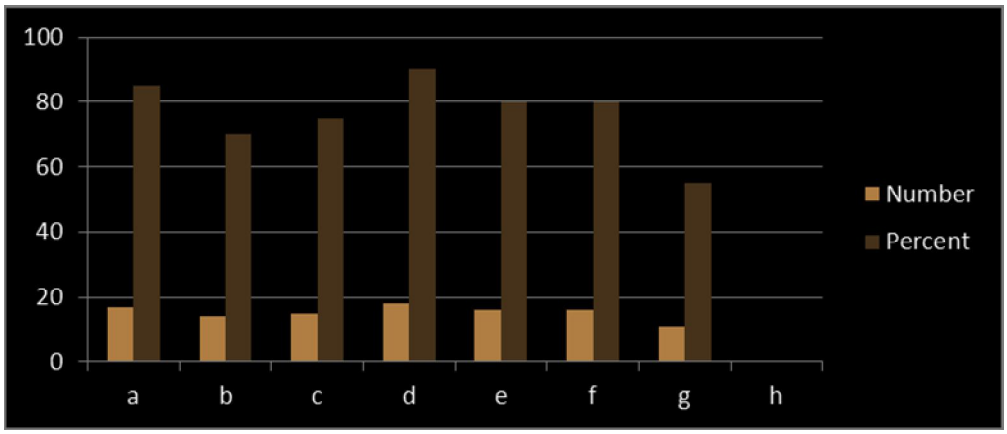


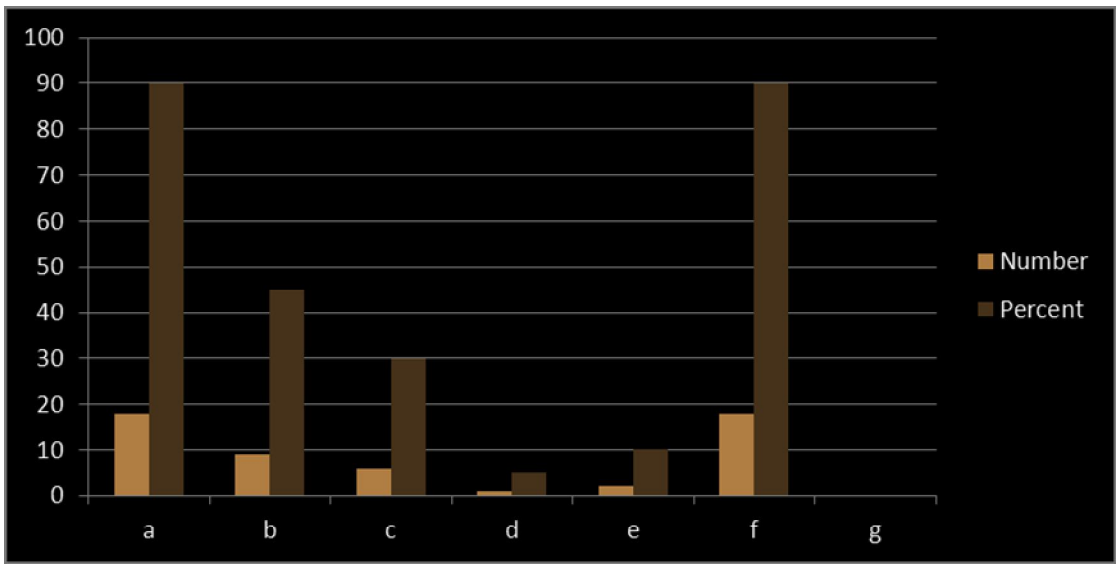
Table 6.23 lists six points of focused protection in urban village innovation projects. Protection of traditional streets and buildings, and improvement of public transport services in the old town areas both achieved percentages of 90%, which were the highest proportion in terms of this issue. 45% of the experts suggested that the living environment of residents should be improved during the project. The issue of city image gained a percentage of 30%. Both e) enhancement of the efficiency of land use (10%), and d) development of regional economy and the value of the land (5%), were considered as focuses for long-term targets.

From this table and the following bar chart, the statistics illustrate the points of emphasis and the problems of high concern in the urban village innovation projects. The traditional streets and buildings are the vivid living background of local residents. They represent the unique lifestyle of local residents and can be described as a kind of emotional bond within an urban village. However, given the status quo of the urban villages, it is obvious that nearly all the ancient buildings have been in a poor state of repair for many years, and destroyed by users because of negligent management. The road and traffic systems of urban villages cannot adapt to the modern modes of transport. Therefore the improvement of public transport services in the old town areas should be a step of equal importance to the protection of streets and buildings. The living environment of local residents is getting worse because of the disrepair in public facilities and the negligent management of the settlement of a large number of migrant workers. The city image could be improved by a good solution to the poor living environment in urban villages. If all the measures mentioned above can be feasibly carried out, the long-term goal of developing the regional economy and enhancing the value of the land will be achieved.

Table 6.23 Points of focus for protection

Important issues for urban village renovation projects			
	a. To protect traditional streets and buildings	18	90
	b. To improve the living environment of	9	45

	residents		
	c. To improve the city¡s image	6	30
	d. To develop regional economy and enhance the value of the land	1	5
	e. To enhance the efficiency of land use	2	10
	f. To improve the public transport services of old town areas	18	90
	g. Other	0	0



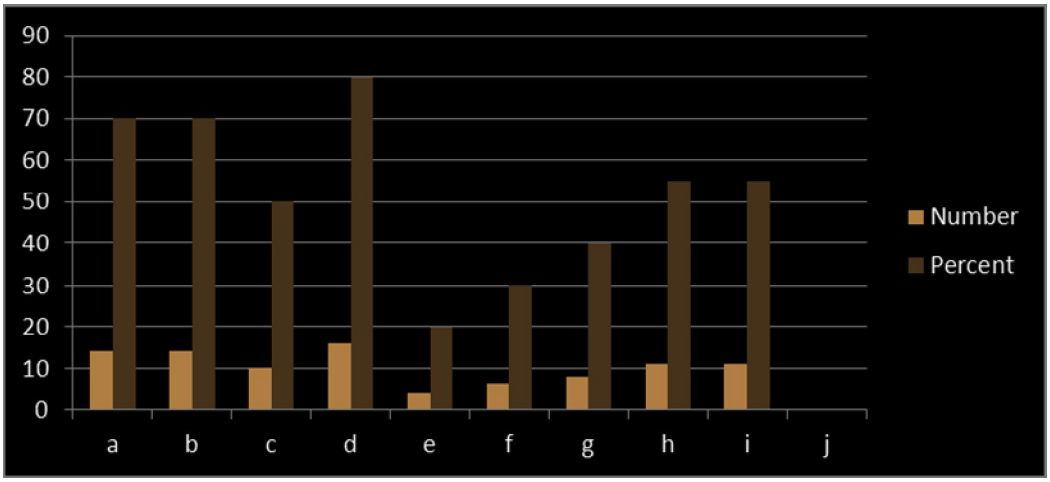
The expectations for the designed outcomes of the urban village innovation projects are tabled into nine directions in table 6.24, and a visual comparison is made in the bar chart that follows. It shows that 80% of experts expected that the new community should be a ¡historical and cultural architectural complex¡. The response of ¡a historical and cultural residential area¡, and that of a ¡commercial centre¡, achieved the same percentage, of 70%. The factors of ¡a modern living area with a traditional lifestyle¡, and ¡a commercial and residential area combined with a traditional community¡, also got equal support, with 55%. A ¡historical and cultural tourist district¡, a ¡historical living area with a traditional lifestyle and modern urban communities¡ each got a percentage of 50%, 40% and 30% respectively. The ¡historical and cultural museum¡ got the lowest support at 20%.

From this table and the following bar chart, the statistics show that experts claimed that the new community should be characterized with ¡history and local culture¡, and combined with ¡residential areas, a commercial centre and a cultural building

complex¡. A ¡modern living area with traditional lifestyle¡ and ¡commercial and residential areas combined with a traditional community¡ got the same support, yet they are totally opposite. A ¡modern living area with traditional lifestyle¡ would need the living environment to be improved and new modern facilities to be introduced into the existing community. Residents there could retain the lifestyle they have always had. The factor of ¡commercial and residential areas combined with traditional community¡ would mean the general mode of a traditional community, but in an urban village renovation project, the decision whether it should be retained or not depends on the status quo of the existing community. The rest of the expectations listed depend on the status quo of the existing environment. If the original community has unique cultural resources, and has been well protected, the urban village will be appropriate to develop as a historical and cultural tourist district, or a cultural museum. On the other hand, if the existing community has no value to be retained, a brand new modern community would be a better solution.

Table 6.24 Expectations and desired outcomes of urban village innovation projects

Desired outcomes of urban village renovation projects			
	a. Historical and cultural residential area	14	70
	b. Historical and cultural commercial centre	14	70
	c. Historical and cultural tourist district	10	50
	d. Historical and cultural building complex	16	80
	e. Historical and cultural museum	4	20
	f. Modern urban communities	6	30
	g. Modern living area with traditional lifestyle	11	55
	h. Commercial and residential areas combined with traditional community	11	55
	i. Other	0	0

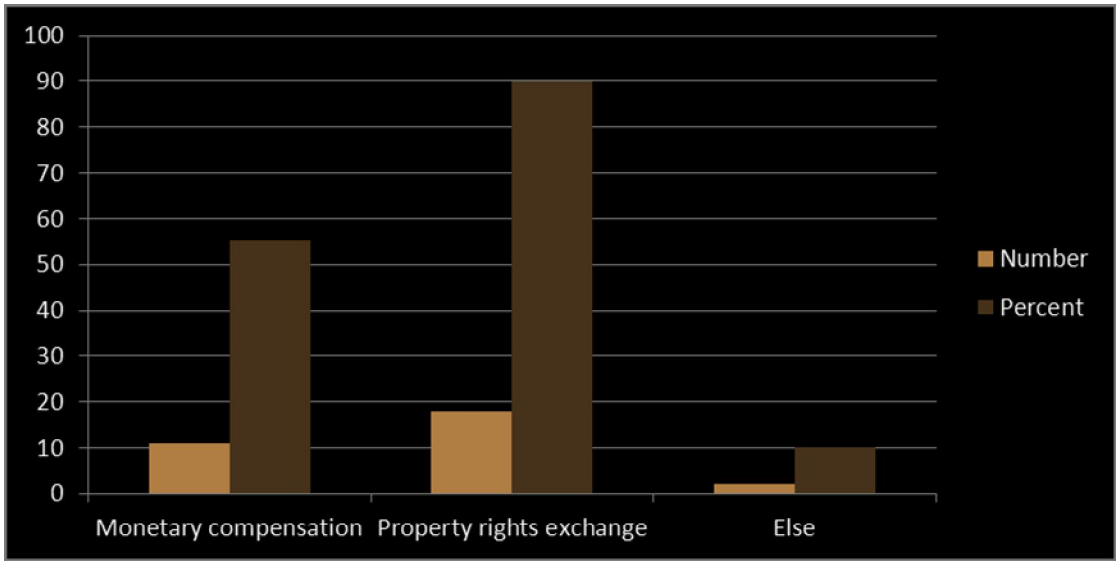


The modes of compensation are listed in table 6.25. There are two kinds of compensation mode currently put into practice during the urban village innovation projects of Kunming. The popularity of the monetary compensation method achieved a percentage of 55%, whilst the other method, property rights exchange, reached 90%. 10% of the experts were trying to work out other ways to improve the compensation mode.

From this table and the following bar chart, the statistics show that property rights exchange is the method that got the highest rate of acceptance. Residents were free to choose the compensation mode. They did not want to move to other districts because most of the residents had lived in their urban village for generations, and had a kind of emotional bond of connection with the urban village. This is one of the important reasons why property rights exchange is more acceptable to residents.

Table 6.25 Compensation mode

Compensation mode			
	Monetary compensation	11	55
	Property rights exchange	18	90
	Other	2	10

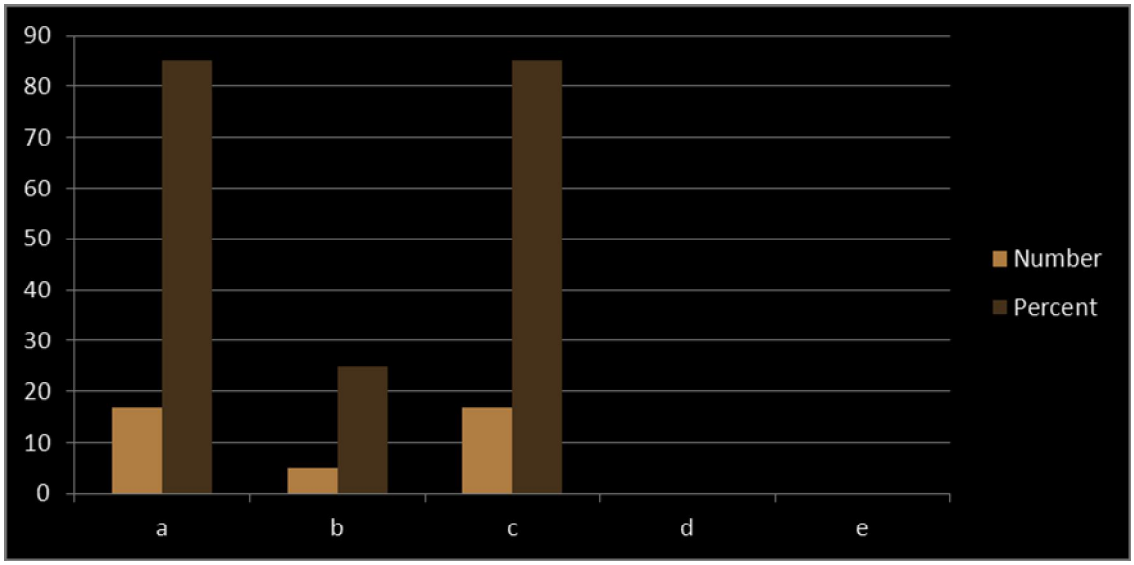


Four aspects of the city spirit of Kunming are listed in table 6.26. The idea that the climate feels like Spring all year around, and the perception of it being a liveable eco-city, both achieved the highest percentages in terms of recognised features, each with 85%. The factor of being a multi-cultural city reached a 25% approval rate. No respondents claimed that the history of the city was the main feature of Kunming.

From the table below and the bar chart that follows, the statistics illustrate the most two influential features of Kunming. The gentle climate of Kunming leaves a deep impression on people arriving there for the first time. The climate of Kunming feels like Spring all year around and this is the main reason why Kunming has a good reputation of being a ¡Spring city¡. Because of the gentle climate and natural landscape, Kunming is a beautiful and liveable eco-city to live in. Kunming was named as ¡Historical and Cultural city of China¡ in 1982. Therefore the history of the city is also an attractive feature of Kunming. To summarize the above, the spirit of Kunming city seems to be that of a ¡Spring city¡, a ¡liveable eco-city¡ and a city full of history and culture.

Table 6.26 City spirit of Kunming

City spirit of Kunming			
	a. Like Spring all year around	17	85
	b. Multi-cultural	5	25
	c. Liveable eco-city	17	85
	d. The history of the city	0	0
	e. Other	0	0

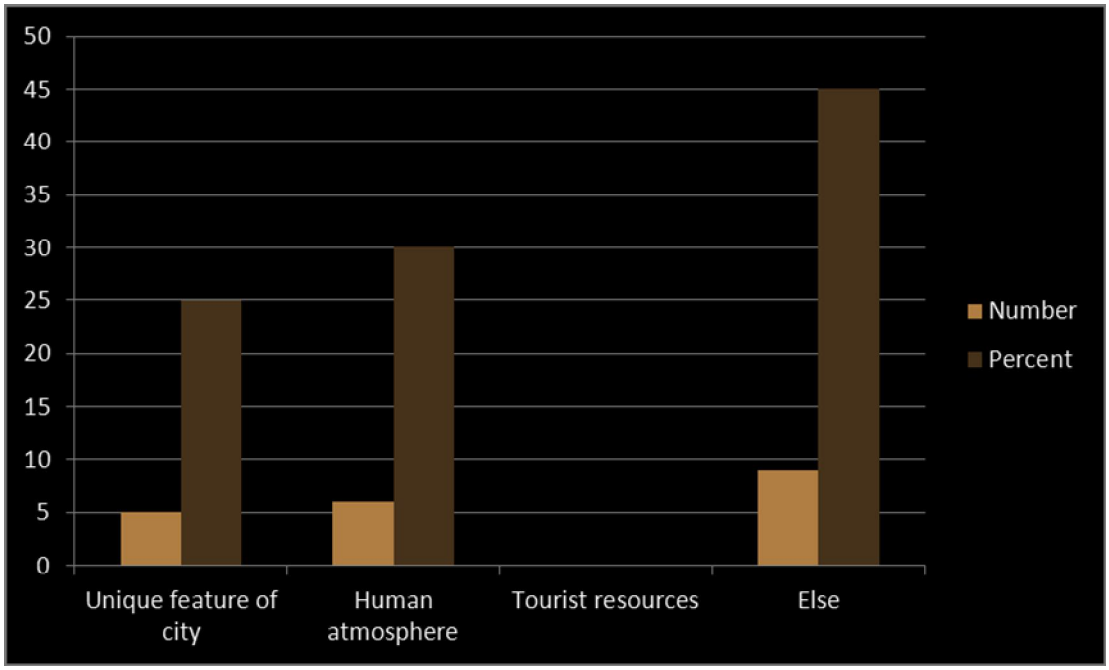


Due to Kunming city having been founded a thousand years ago, and also its multi-cultural mix, the urban villages do have their own unique cultural customs. What the culture of urban villages can bring to the urban development was worth exploring during the innovation project. Three main points of unique culture are listed in table 6.27. 25% of the expert respondents claimed that the culture of the urban villages represents the unique feature of the city. 30% of them considered that the culture of urban villages demonstrated a human atmosphere which belonged only to Kunming. No respondents suggested that the urban villages could be deemed as tourist resources. 45% of the experts gave their own point of view about this survey question.

From this table and the following bar chart, the statistics demonstrate that the culture of urban villages could be counted as a carrier for the unique features and human atmosphere of Kunming. The urban villages contain different migrant workers who come from different regions, hence the lifestyle of most residents there is very varied. However, the urban villages are unlike old town areas, and most of them have no retained value. Therefore in terms of contribution to the city, the unique culture is not obvious.

Table 6.27 What kinds of culture can urban villages bring to the urban development?

What can urban village culture bring?			
	Unique features of the city	5	25
	Human atmosphere	6	30
	Tourist resources	0	0
	Other	9	45

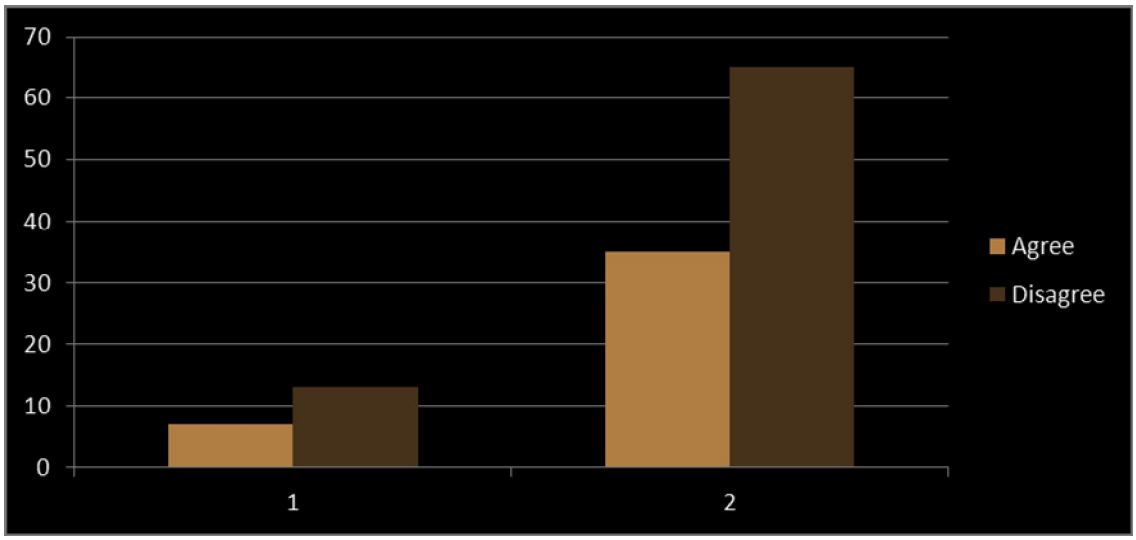


The result of whether it is suitable to transform urban villages into tourist attractions through the urban village innovation projects is listed in table 6.28. 35% of respondents agreed that urban villages could be created as a tourist attraction. Another 65% respondents did not agree with transforming urban villages into tourist attractions. 25% of respondents gave their own point of view to support their choice.

From this table and the following bar chart, the statistics show that most of the experts did not claim that the status quo of urban villages was suitable for planning as tourist attractions. They suggested that most of the urban villages in Kunming had no need to develop tourism, and that most of the current buildings in urban villages had no intrinsic value. The experts were concerned that, once the urban villages became a tourist attraction, the modern commercial districts would drown the vivid lifestyle and the real local culture.

Table 6.28 Urban village as a tourist attraction

Do you agree that tourist attractions should be created by urban village innovation projects?			
	Agree	7	35
	Disagree	13	65
	Reasons?	5	25



There are three basic reasons listed in table 6.29. 75% of respondents claimed that the reason for the need to reform urban villages was the built-in problems of urban villages which hindered urban development. 40% of them believed that the huge gap between supply and demand in the housing market of Kunming was the reason for reforming urban villages. 15% of respondents claimed that the demand for improvement of the living environment of local residents gave rise to the reforming of urban villages.

Table 6.29 Basic reasons for urban village renovation

Basic reasons for urban village renovation projects			
	a. A huge gap between supply and demand in the housing market is the market cause for the development of urban villages	8	40
	b. The built-in problems of urban villages hinder urban development	15	75
	c. The demand for improvement of the living environment of local residents	3	15
	d. Other	0	0

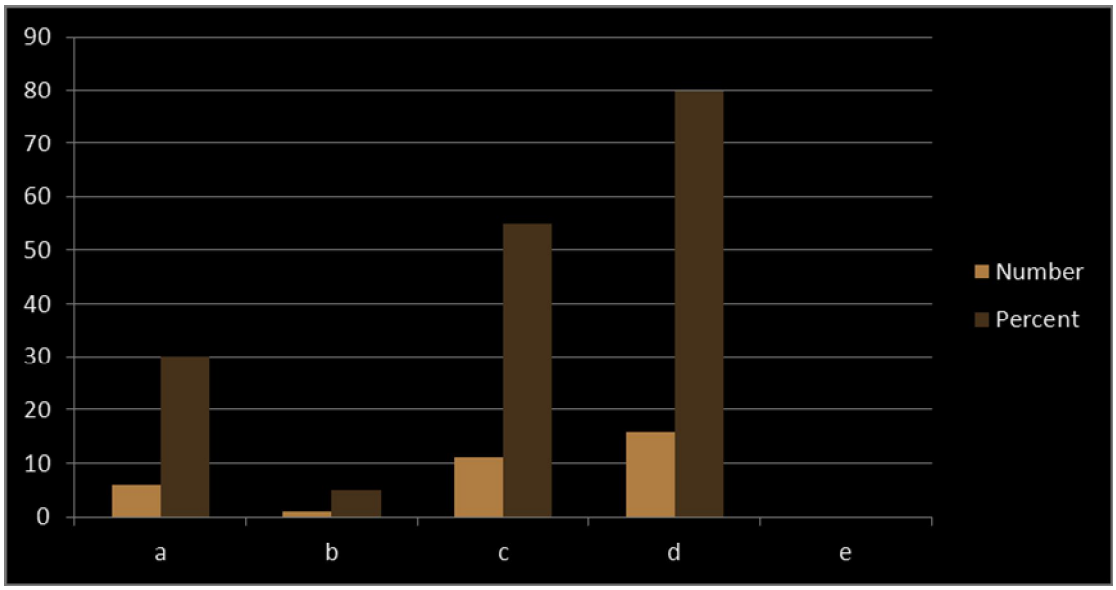
The survey results regarding the benefit of keeping the traditional culture of urban villages are tabled in 6.30. 80% of respondents claimed that maintaining traditional culture could help to retain the unique character of ¡Spring city¡. 55% of them

suggested that it was necessary to protect traditional culture along with the development of the city. 30% of respondents claimed that the reputation of the famous historical and cultural city of Kunming should be maintained by protecting traditional culture. 5% of them believed that maintaining traditional culture could give a rich and colourful life to local residents.

From this table and the following bar chart, the statistics demonstrate that the city should be recognized by its unique characteristics. The development of the city should be culture-based, in order to keep the reputation of this famous historic and cultural city of China. In terms of the life of residents, the sense of belonging can only be found in a city which is full of harmonious neighbourhoods and a traditional lifestyle. In short, all the issues mentioned above can be achieved by maintaining traditional culture during the urban village renovation projects.

Table 6.30 The benefits of maintaining traditional culture in the urban village innovation projects

The benefits of maintaining traditional culture in the urban village innovation projects			
	a. Sustaining the reputation of a famous historic and cultural city	6	30
	b. Villagers have a rich and colourful life	1	5
	c. Urban development needs to protect cultural heritage	11	55
	d. Keeping the unique culture of ¡Spring city¡	16	80
	e. Other	0	0



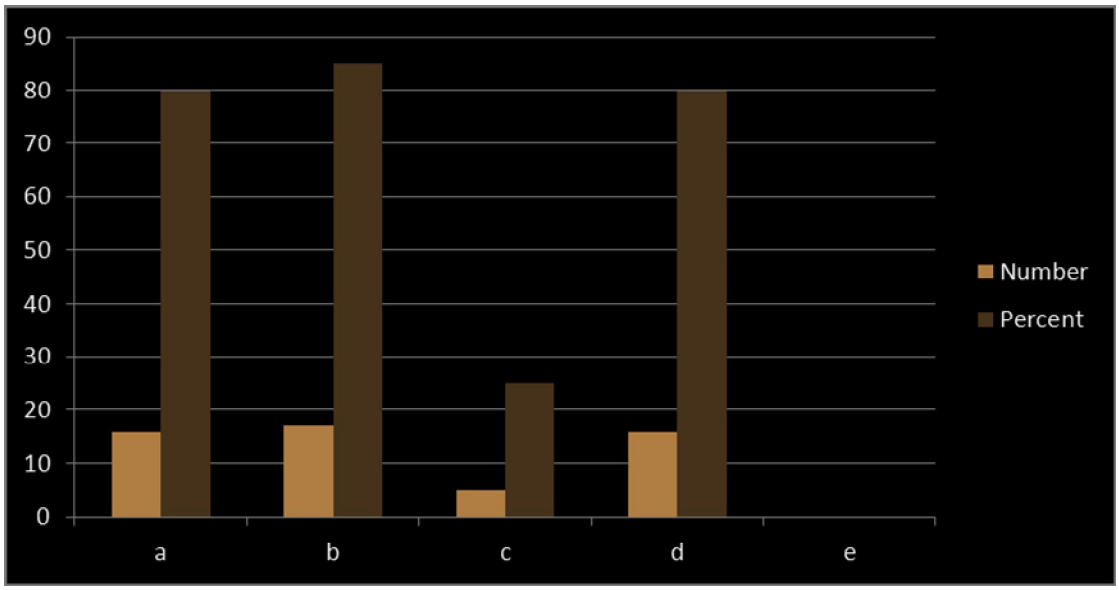
The survey investigated ways to keep traditional culture in urban villages and the experts¡ points are listed in table 6.31. 85% of respondents suggested that more attention should be paid to ancient buildings and local culture, in particular cultural relics and historic sites. In fact, it was felt that there was small number of cultural buildings which were well worth preserving. 80% of respondents claimed that maintaining the traditional form, texture and historic buildings of urban villages would be the most direct way to protect the traditional culture. 80% of respondents claimed that appropriate support for the customs and cultural activities in the villages would maintain the traditional culture of the urban villages. Only 25% of respondents suggested that building a history museum and recording the historical development of the villages by exhibiting photos and reading materials would preserve the traditional culture of urban villages.

The statistics in table 6.31 demonstrate that the preservation of traditional culture should not just be collected in museums or recorded in photos and reading materials. The background of daily life contains both material and spiritual factors, and the real traditional culture should be able to continue in both.

Table 6.31 How to keep the traditional culture of urban villages

How to keep the traditional culture of urban villages			
	a. Maintaining their traditional form, texture and historic buildings by functional layout, building	16	80

	design and landscape design		
	b. More attention should be paid to ancient buildings and local culture, in particular cultural relics and historic sites	17	85
	c. Build a history museum and record the historical development of the villages with photos and reading materials	5	25
	d. Maintain the cultural customs and give appropriate support to cultural activities in villages	16	80
	e. Other	0	0



The difficulties of the urban village innovation projects are listed into six aspects which are shown in table 6.32. Nearly 85% of the experts claimed that the difficulties of urban village innovation projects were the currently bad living environment, mixed population and disordered internal security. 80% of experts claimed that the self-built housing in urban villages was hard to control in the current situation of urban villages. 75% of experts believed that it was difficult to provide jobs for local people after the innovation projects. 25% of respondents claimed that the development of urban villages was hard to control, because the developments were spontaneous and short-sighted. 15% of experts considered that there was no integrated planning or management in the urban villages. No one claimed that the unclear ownership of land and housing in urban villages could become difficulties during the projects.

From table 6.32, the statistics demonstrate that the problems of self-built housing in urban villages would be the biggest difficulty during the urban village renovation projects. These problems were listed as follows: bad living environment, mixed population and disordered internal security; it is hard to control the self-built housing in urban villages, and it is difficult to provide jobs for local people. The lack of government management and current public policy has led to the spontaneous and short-sighted development of urban villages, and the absence of integrated planning and management. The unclear ownership of land and housing could cause extra problems among key stakeholders, developers and experts.

Table 6.32 Difficulties

The difficulties of urban village innovation projects			
	a. There is no integrated planning and management	3	15

	in urban villages		
	b. The development of urban villages is spontaneous and short-sighted	5	25
	c. The ownership of land and housing is unclear in urban villages	0	0
	d. It is difficult to provide jobs for local people	15	75
	e. It is hard to control the self-built housing in urban villages	16	80
	f. Bad living environment, mixed population and disorder of internal security	17	85
	g. Other	0	0

6.2 Summary

This chapter has accommodated the research findings based on the questionnaire survey, and a field visit is intended to help improve the design and planning methods of the urban village renovation projects in order to meet the real needs of all stakeholders. It has addressed the issues encountered during the planning stages of urban village renovation, including the current status quo, concerns of stakeholders, and ideas from architects and city planners. Furthermore, these research findings provide an overview of the factors which might limit the development projects, and which could also provide solutions to problems encountered in the process of urban village renovation projects in Kunming.

As information resource from key stakeholders, views related to urban village renovation projects from them could provide ideas for developers, architects and

planners to make proper decisions for the project. Based on the survey results, the current residents as the main group of stakeholder have the rights to decide whether the urban village renovation project can be implemented or not. Bearing their concerns in mind, sources of stable income from rents must be assured after the project. Otherwise the project cannot get supported sound by them. This is the reason why current design methods we discussed in case study have to put the certain proportion of low-rent housing in new residential area in consideration. Also, the survey also shows their worries. Current local residents deserve better quality of life, but how they can adapt the brand new city life in old living place is really challenging. Mixed with new residents from other area of city, the way of living and thinking could be huge conflicts and arise problems. For those tenants who choose to live in urban villages, the positive job opportunities, convenience of transport system near urban built-up areas and affordable housing are reasons why they would like to settle down here. Undoubtedly, these tenants are the basic force of urban infrastructure projects. In this case, the role of ¡buffer zone¡ of urban village could be partly contained in new residential area. Urban village renovation project seems to be a great process for residents around there. A number of advices that will contribute to the self-definition of Kunming city have been accepted by surrounding residents. Apart from the great changes of living environment around them, they also have strong hope to get their memories of old Kunming city back. During the relocating in new residential area where developed by urban village renovation, the word ¡conflicts¡ became a hot issue. The new residential area had combined the relocated clusters and new residential clusters together, which means two groups of residents with different cultural backgrounds and life-styles will settle down in same places without adequate understanding for each other. Additionally, most of relocates are fully satisfied with the improved living environments, but facing the brand new life in new residential areas, they did feel unfamiliar even though they returned to the place they used to live. Segregation between new residents and relocates, reflected as the gap between urban and rural, has not been inosculated by urban village renovation project. On the contrary, the issues of segregation became more distinct in the new development. A certain way is still in need of inosculating this bounds that could truly solve the problems caused by the gap between urban and rural areas.

Chapter 07: Conclusions

Fig.7.1 Jiang, W. (2010) *Flowers in the village* [online image] Available at: < http://user.qzone.qq.com/259419881> [Accessed 25 August 2011].

After researching the related literature on the urbanization of Kunming, there were a number of unique features which might greatly impact the strategies, decision-making, and even the planning concepts and individual building designs of construction projects nowadays. Focusing on the urban villages in China as a unique phenomenon within the history of urbanization all over the world, a number of unique features of the urban villages in Kunming were revealed by the investigation of current conditions through visiting and handing out the questionnaires to local residents. After researching the design and planning methods of urban village renovation, and analysing the questionnaire responses from local residents, this study can conclude that the conditions of current urban villages have been changed significantly by the urban village renovation projects. Having assessed the data, using the criteria from the UK¡s BREEAM for Communities as reference, I believe that the current design and planning methods of urban village renovation projects in Kunming can be improved, and also have the potential to be more sustainable. It would be difficult to implement all the criteria set out in BREEAM for Communities simultaneously within a short period in the process of urban planning in China. However, under the various conditions of each urban village renovation project, the implementation of the principles of BREEAM for Communities at different stages might make them more suitable and reasonable in the process of urban village renovation projects in China.

7.1 Features of urbanization of Kunming

After researching the relevant literature regarding the history of the urbanization of Kunming, a number of unique features can be summarised as the special reasons for the formation of urban villages in Kunming in the early stages.

1. In terms of the urbanization of Kunming, external forces, including a number of issues caused by wars, should have been the trigger for earlier urbanization of Yunnan in the 19th century. However, the evacuation of industry, commerce and schools caused the urban development of Kunming to lack sufficient incentive to continue its own urbanization during that period of time.

2. Issues about the form of the city layout of Kunming include two aspects. In terms of the traditional layout of Kunming, it has two main features: taking a comprehensive view of the current urban pattern of Kunming, it can be perceived that Kunming still contains the traditional axis. Paralleled with the traditional axis, there is a new modern axis, formed by the rapid but stable economic development of Kunming, which represents the development of the modern Kunming; the traditional urban layout of Kunming has been characterized as a unique layout of roads, arranged around important buildings, which appeared in the shape of a wine glass. Therefore, Kunming preserved the traditional city pattern along with the development of modernization; the combination of ¡old and new¡ became the unique characteristic of Kunming, and would be a strength in the ensuing urban development of this historical and cultural city of China.

3. In terms of the development process of urban planning strategy, each strategy had indeed solved some of the problems, but they also caused a number of new problems, and some of these have even impacted on current urban development. Starting with the preliminary plan in 1953, the implementation of the three five-year plans accelerated the pace of urban development of Kunming, and during the second five-year plan in 1959, ¡pie-style¡ urban development appeared and brought a number of problems, such as: oversized scale planning; excessive land expropriation; an extremely high standard of construction, but the pursuit of new urban development without enough patience; some of these issues led to the backward development caused by incomplete urbanization. By the year 1962, strategies had been modified and proposed to control the land expropriation; land reclaimed on Dianchi Lake had caused huge damage to the natural environment of Kunming, which cannot be changed and will take a long time to fix. The Comprehensive Plan of Kunming in 1982 firstly proposed that Kunming had great potential for tourist development, and in the same year, Kunming became the first historical and cultural city of China. Therefore, along with the process of urbanization of Kunming, the excessive expropriation of agricultural land and the environmental pollution caused by land reclamation are facts which should be faced by architects and city planners, and the reduction of the impact of building construction on the environment is always the responsibility of all of them.

4. In terms of city conservation and the redevelopment of Kunming, the continuing 10 years of Cultural Revolution of China ruined a large number of cultural relics which represented the unique regional culture of Kunming. Through the investigation of the history and culture of Kunming by the Planning and Design Institute, there were seven issues which were ignored during the urban development of Kunming. These related to: the destruction of the natural landscape; abuse of historic buildings; destruction of historical buildings; destruction of ancient plants; destructive construction around Dianchi Lake; lack of financial support for repairing damage, and great pressure on the environment by increasing urban development and population, The same problems existed in the urban villages of Kunming, and were sometimes even more serious. With the start of a large number of urban village renovation projects in Kunming, traditional features in urban villages would be gradually covered by those brand new residential districts, which would ruin the reputation of the historical and cultural city in terms of cultural conservation.

7.2 Characteristics of status quo of urban villages in Kunming

According to the research data relating to the current status quo of urban villages in Kunming, four prominent characteristics are revealed, which are also the difficulties of the urban village renovation projects.

1. There are 335 urban villages located in the limited urban built-up area, which contains nearly 760 thousand residents. The urban villages of Kunming are distributed from the central city area to the outskirts. Therefore, the urban villages of Kunming exist in large quantities and are widely distributed all over the urban built-up area. On the other hand, led by the common design and planning methods of the urban village renovation projects in Kunming, the similar arrangement of urban function in adjacent urban villages will put a great challenge on the consumption ability of the market; hence, a self-critical approach to the common design and planning methods of urban villages is indeed necessary.

2. According to the data research on the current status quo of urban villages in Kunming, the average floor area ratio of urban villages within the second ring road was 2.48, whereas the floor area ratio of most urban villages of Kunming is close to 2.0. A large area with low floor area ratio and high building density cannot afford the high demand of housing. The tremendous pressure of population and the demand for housing has led to a number of difficulties in the urban village renovation project, and the large scale of housing compensation has made the urban village renovation a more sensitive issue among stakeholders.

3. Due to the trend of migrant workers moving to the capital city searching for opportunities to support themselves, as the main source of providing affordable housing to migrant workers, the number of urban villages with low quality living environment and illegal construction in the urban built-up area has gradually increased.

4. In order to make full use of land and maximize their private profits, some villagers have leased land personally to others without permission. Demolition is regarded by most local residents of urban villages as a way to earn high levels of compensation. Given this situation, illegal construction in the urban villages is out of control and, especially along with the policy of housing demolition and compensation, the construction of illegal housing has become more rampant.

7.3 Changes in urban villages after the renovation projects

With the aim of improving the disadvantages of the urban villages, the design and planning methods of urban village renovation projects in Kunming have partly solved the existing problems, but have also led to some disadvantages in terms of urban development.

After the urban village renovation projects, a number of issues have been resolved properly:

1. The living quality and social infrastructures in the newly-built residential communities, which provide the necessities for the daily lives of local residents,

have been improved by the renovation projects of the urban villages, such as the integration of the built-in community functions, especially the educational function, and open spaces have been improved. Furthermore, due to the re-planning of the original residential area, nearly all the basic infrastructures have been improved, such as the city pipe network and urban roads.

2. Different types of commercial housing have been considered in the new residential communities, which have provided more choice for house purchasers.

3. Business activity has been enhanced by introducing modern tourism commerce into the newly-built residential communities.

4. The intensive utilization of residential land in newly-built residential communities will reduce unnecessary land waste and functional defects, and maintain more green open spaces for residents.

5. With the implementation of the urban village renovation projects, the residence registration of local residents has been transformed to an urban household registration. Individual urbanization has been achieved to some extent.

However, the current design and planning methods for urban villages have also caused some new problems which are listed as follows:

1. The newly-built residential community has completely changed the original pattern of the urban village and, led by the current policy and strict control of planning details, the master plans for residential communities are identical with each other. Therefore, the city will lose its unique characteristics due to the sameness of the newly-built residential communities which have been built simultaneously. Furthermore, the geographical relationship will also disappear through such rebuilding projects.

2. Commercial housing and compensation housing are distributed in the same urban residential district but separated inside, which also separates the lifestyle between urban and rural communities. A new culture conflict will arise because of this unfilled gap.

3. The traditional lifestyle of local residents has changed by introducing the new commercial format, and local residents need more time to get involved in the newly-built modern residential communities. By focusing on the general design and planning methods of the urban residential districts, and giving little consideration to the cultural background and private concerns of local residents and migrants, the gap between urban and rural residents is still there, and the essential problems of the urban villages have not been solved, yet there is still the chance to restrict the urban development.

4. To make full use of a compensation house cluster for relocatees, the floor area ratio has been increased during the profit consideration between stakeholders. Therefore, the floor area ratio of a compensation house cluster is usually higher than in other residential clusters. The operation of current communities has been affected by the increasing floor area ratio, such as: an increase in residential density; a depressed degree of living comfort, and a huge stress on the use of sports fitness centres, children¡s activity areas, entertainment centres, and even the lifts and fire escapes in residential buildings.

5. By moving back to a brand new community, the relocatees who will move back into the compensation clusters will face the challenges of adapting to a new living environment and lifestyle. Furthermore, the lifestyle and ideological understanding of local residents in urban villages cannot be changed just by replacing a rural residence registration with an urban residence registration.

7.4 Suggestions and difficulties in terms of sustainable development in Kunming, China

According to the previous analysis of the design and planning methods of urban village renovation projects in Kunming, and by assessing this using the criteria of the UK¡s BREEAM for Communities, the conclusions have pointed out some aspects of each principle which are suitable for using in the early stages of urban village renovation projects in Kunming, in order to improve the current design and planning methods, and these have the potential to lead the urban village renovation project in Kunming not only to change the current messy living environment, but also to meet the future needs of the next generations.

Table 7.1 Summary of BREEAM for Communities

	Aims	**Content**	**Contribution**
Climate Change Participant: Planners Architects	Addressing built form mitigation and adaptation issues;	1. Flood management; 2. Energy and water efficiency; 3. Renewable energy; 4. Infrastructure; 5. Passive design principles;	Reducing the proposed project¡s contribution to climate change whilst ensuring that developments are appropriately adapted to the impacts of present and future climate change;
Resources Participant:	Addressing sustainable	1. Land use and remediation;	Designing for the efficient use of

Planners	transport options;	2. Material selection; 3. Waste management; 4. Construction management; 5. Modern methods of construction;	resources including water, materials and waste in construction, operation and demolition, and minimizing the life cycle impacts of materials chosen;
Transport Participant: Planners	Addressing sustainable transport options;	1. Walk able neighbourhoods; 2. Cycle networks; 3. Provision of public transport; 4. Green travel plans; 5. Construction transport;	Addressing how people can get to the facilities and locations that they need; giving people choices other than private cars and encouraging walking and cycling for healthier lifestyles;
Ecology Participant: Planners	Addressing protection of the ecological value of the site;	1. Maintaining/ enhancing habitat; 2. Green corridors; 3. Ground pollution; 4. Contaminated land; 5. Landscaping schemes;	Conserving the ecology living on and visiting the site and taking full opportunity for ecological enhancement within and around the development as well as on buildings;
Business Participant: Planners	Addressing local and regional economic issues;	1. Inward investment; 2. Local employment; 3. Knowledge sharing; 4. Sustainable charters;	Providing opportunities for businesses to locate to serve both the locality and provide jobs for people living in and around the development;
Community Participant: Planners Architects	Addressing consultation and local community involvement;	1. Social impact assessment; 2. Community engagement;	Designing the development to support a vibrant new community

Users		3. Sustainable lifestyles; 4. Facilities management; 5. Mixed of use; 6. Affordable housing;	which can integrate with surrounding areas, avoiding creating actual or perceived ¡gated¡ communities;
Place shaping Participant: Architects	Addressing local area design and layout;	1. Site selection; 2. Defensible space; 3. Active frontages; 4. Green space; 5. Second by design; 6. Housing density;	Provide a framework for the design of a real place with an identity that ensures that people can instinctively find their way around. Also ensuring that the new development draws from local context and heritage;
Buildings Participant: Architects	Addressing overall sustainability performance of buildings;	1. BREEAM buildings; 2. Code for sustainable Homes; 3. Building refurbishment;	Ensuring that the design of individual buildings contribute to the sustainability of the overall development through high environmental standards;

1. Climate Change

To address the influence of construction form on environment factors, architects, city planners and developers must be aware of the impact of human behaviour on the natural environment. Minimizing the environmental impact, while improving the living environment during the projects, would go a certain way towards sustainable development. It is disappointing that there is no proper strategy before the early planning stages to limit the quantities of renovation projects and measure the pressures
on the building environment. Furthermore, due to the lack of capital investment or research into sustainable construction technology, not all the urban village renovation

projects have the chance to apply high technology construction, which might reduce the environmental impact of building construction.

2. Resources

A large amount of construction waste and materials has had no proper treatment programme due to the process of demolition and construction during the urbanization in Kunming, and a proper treatment policy for the processing and recycling of construction waste must be incorporated into the evaluation procedures to achieve the sustainable use of resources. Furthermore, the approach of determining modern construction methods with regard to the appropriate selection and use of local materials would be a way to avoid the problems associated with production of materials and waste disposal.

3. Transport

With regard to improvements to transport in the current design and planning methods of urban village renovation projects in Kunming, the following aspects are suggested. The layout of public infrastructures in the community should be determined by the choice of transportation style of local residents. Walkable distances, along pedestrian pavements surrounded by green landscapes, between public infrastructures and where people live, could provide a liveable, interesting experience, rather than the use of private motor vehicles going through. The enhancement of the connection between where people live and work by providing efficient public transport, such as introducing cycle networks to encourage healthier lifestyles, is also related to climate change. Fortunately, the rail transport system of Kunming has been under construction in recent years. The improvement of the major transportation system of Kunming will reduce the pressure on urban transport in newly-built urban areas, and it will also ease the traffic pressure on surrounding villages in the area. Therefore, an effective transportation system will relieve the dependence of tenants on the excellent location of urban villages. Furthermore, a convenient public transport system and walkable distances between social infrastructures and homes in newly-built residential areas will provide the possibility of reducing private car journeys, and also reduce the number and cost of car parking places.

4. Ecology

Most of the urban villages in Kunming have been located in urban built-up areas, which means that the ecological natural environment has been destroyed by urbanization to some extent. For the process of an urban village renovation plan, green coverage is one standard method to represent the environmental quality of a new residential area. However, the utilization of green landscape should be as a true open space for residents, not just as something to look at; the search for new uses of green landscape should be one of the evaluation procedures during the process of an

urban village renovation project. Furthermore, the original ecological habitats have mostly been changed into urban built-up areas, but the chance of reducing the environmental impact of construction exists in the form of landscape design and the ¡green corridors¡ concept.

5. Business

Providing opportunities, in developments for relocatees and people living in and around the area after an urban village renovation project, would be a proper way to improve the local and regional economy. In terms of urban village renovation planning in Kunming, sustainable development should be considered, by providing a variety of types of jobs which are suitable for the different educational levels of residents, and related skills training would help them easily get involved in the new residential areas.

6. Community

A vibrant community should be characterized as having good communication between residents, community cohesion, and sharing a similar regional culture to enable getting involved with surrounding areas. In terms of the planning of the urban village renovation projects which have been mentioned in the cases, the separated layout of compensation housing and commodity housing will deepen the estrangement between relocatees and new residents, which violates the aim of the urban village renovation project itself. Therefore, combining the residential types by providing different levels of affordable housing would be a solution to dilute the estrangement between relocatees and new residents.

7. Place shaping

The outcome of a large number of urban village renovation projects in Kunming always appears to be a brand new residential area which represents a totally different layout compared to the one before the renovation. To address the issue of the area¡s identity, whilst maintaining the diversity of the city, the local government and decision-makers should consider limiting or even avoiding the construction of identical new residential communities, built simultaneously by the urban village renovation projects. In order to aid the identification of the local culture of Kunming, not only architectural style, but even urban layout should be researched and designed on the basis of local heritage.

8. Building

Great importance has been continuously attached to the concept of low energy consumption building in China, and it has already been written into ¡11th Five-Year Development Plan¡ in the year of 2007. In the actual market circumstances in China,

the increasing cost of low-carbon technologies would be a huge challenge to the developers. A set of practical criteria that conform to the reality is needed to enhance the low carbon architecture development in China. Furthermore, appropriate policy support and incentives are indispensable factors that could ensure developers and house purchasers to get the benefits from introducing the concept of low energy consumption building. Using the ¡Code for sustainable homes¡ from the UK to compare the situation of architectural project in China could be critical, but the number of differences resulted from the comparison could be a chance to understand the variation in different countries and the importance of localized development. As the conditions have been discussed in case study and survey in previous chapters, differences can be referred.

Table 7.2 Summary of Code for sustainable homes

	Issues and aims of code for sustainable homes
Energy and CO_2 Emissions	**Dwelling emission rate(M):** limit CO_2 emissions arising from the operation of a dwelling and its services in line with current policy; **Fabric energy efficiency(M):** improve fabric energy efficiency performance; **Energy display devices:** empowering occupants to reduce energy use by using visual display of energy consumption data; **Drying space:** promote a reduced energy means of drying clothes; **Energy labeled white goods:** reducing the CO_2 emissions by supplying or purchasing energy efficient white goods; **External lighting:** reducing CO_2 emissions by supplying energy efficient external lighting; **Low and zero carbon technologies:** limit CO_2 emissions and running costs, and use technologies to supply a significant proportion of energy demand; **Cycle storage:** reducing the short car journeys and associated CO_2 emissions by supply adequate and secure cycle storage facilities; **Home office:** reducing the need to commute with necessary space and services;

Water	**Indoor water use (M):** reduce the consumption of potable water in the home from all sources; **External water use:** to promote the recycling of rainwater and reduce the amount of mains potable water used for external water uses;
Materials	**Environmental impact of materials(M):** specify materials with lower environmental impacts over their life-cycle; **Responsible sourcing of materials-basic building elements:** to promote the specification of responsibly sourced materials for the basic building elements; **Responsible sourcing of materials-finishing elements:** to promote the specification of responsibly sourced materials for finishing elements;
Surface Water Run-off	**Management of surface water run-off from developments(M):** protect receiving waters from pollution and minimize the risk of flooding and other environmental damage in watercourses; **Flood risk:** promote housing development in low flood risk areas or take measures to reduce the impact of flooding on houses built in areas with a medium or high risk of flooding;
Waste	**Storage of non-recyclable waste and recyclable household waste(M):** provide adequate internal and external storage space for non-recyclable waste and recyclable household waste; **Construction site waste management:** promote resource efficiency via the effective and appropriate management of construction site waste; **Composting:** promote the provision of compost facilities to reduce the amount of household waste send to landfill;
Pollution	**Global warming potential (GWP) of insulants:** promote the reduction of emissions of gasses with high GWP; **NO_x emissions:** promote the reduction of nitrogen oxide emissions into the atmosphere;
Health and	**Day lighting:** promote good day lighting and thereby improve

Well-being	quality of life and reduce the need for energy to light the home; **Sound insulation:** promote the provision of improved sound insulation to reduce the likelihood of noise complaints from neighbours; **Private space:** improve quality of life by promoting the provision of an inclusive outdoor space which is at least partially private; **Lifetime Homes(M):** promote the construction of homes that are accessible and easily adaptable to meet the changing needs of current and future occupants;
Management	**Home user guide:** promote the provision of guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities; **Considerate Constructors Scheme:** promote the environmentally and socially considerate, and accountable management of construction sites; **Construction site impacts:** promote construction sites managed in a manner that mitigates environmental impacts; **Security:** promote the design of developments where people feel safe and secure;
Ecology	**Ecological value of site:** promote development on land that already has a limited value to wildlife, and discourage the development of ecologically valuable sites; **Ecological enhancement:** enhance the ecological value of a site; **Protection of ecological features:** promote the protection of existing ecological features from substantial damage during the clearing of the site and the completion of construction works; **Change in ecological value of site:** minimise reduction and promote an improvement in ecological value; **Building footprint:** promote the most efficient use of a building¡s footprint by ensuring that land and material use is

	optimized across the development;

It is a growing agreement that the life-style of low energy consumption and low-carbon emissions is becoming popular and it also comes into vogue in most cities in China. Being strict on the building construction and management with certain regulations is the way to achieve the sustainable living environment drastically. Issues mentioned in ¡Code for sustainable Homes¡ could be certain guide for building low energy consumption living environment, but for residential projects implemented in most of Chinese cities, it is still a high standard and difficult task to meet all the regulations in one project. Review the case studies in previous chapters of the dissertation with the indicators of ¡Code for sustainable Homes¡, difficulties and current conditions which may restrict the sustainable development in urban village renovation projects of city of Kunming are becoming obvious.

Through the investigation of current status quo of urban villages in Kunming, the water-supply and plumbing system in urban village area still stayed in relatively low development level. The requirements of ¡water¡ in ¡Code for sustainable homes¡ for individual house could not be carried out in the early stage of the project, which also goes beyond the current situation in urban villages. In this case, well-functioning water-supply and plumbing system in whole urban village area should be solved at the first place during the project, otherwise the implementation of water-use with low energy consumption in each house cannot be carried out.

By investigating the current condition of building materials in most of urban villages in Kunming, concrete is the most common building material used by residents to build rural houses, and with relatively low quality most of the time. Although urban village renovation project could solve problems of low quality construction, limitation of local green building technologies, capital investment and huge amount of construction waste after mass-demolition and construction could be the barriers to the development of new residential area in sustainable way.

In terms of waste management in Kunming city, regulations (¡Method of Municipal Solid Waste Management of Kunming¡, 2005) of dealing with domestic waste and construction waste have only outlined the measures that will normalize the transportation, collection and management of garbage. But a proper way of waste treatment implemented in individual home is still solved. Furthermore, most of residence in China is like the form of apartment that is under management with same standard, which means facilities of waste treatments should be provided for all the residence in one residential area. The cost of huge amounts of facilities investment could be a challenge for all the stakeholders who are involved.

In terms of health and well-being in the ¡Code of sustainable homes¡, it is good to state that there is a proper standard in Kunming to regulate the duration of daylight of

residence, which means it has already promoted the quality of life and has the chance to reduce the consumptions of electricity. For the issue of provision of outdoor private space, it is more difficult to implement in urban village renovation projects in Kunming because the pressures of accommodating relocates and residents from other areas of city will restrict the provision of outdoor open space. For the housing type and construction, urban population construction and family structure of China in different periods of social context could be the factors to guide the type of housing construction and market demand. Under the policy of birth control in China, one-child family could be the typical family structure that may influence the demand of housing type. Hence, the construction of homes should consider the current urban population construction and localized family structure.

7.5 Research Limitations and further development

As the first green building assessment method in the world that established in 1990, BREEAM have offered a great number of new versions of the concepts on low-carbon design and sustainable development. Due to the great power of influence, BREEAM has been maturely developed worldwide, many countries have attempted BREEAM as a foundation to develop their own green building assessment method which may apply to local conditions. As the urban village renovation project implemented in China that always appeared with mass-demolition and mass-construction to finally achieve minimal standard of security issues and amenity, higher standards from BREEAM for Communities that have been set as to distinguish itself from other localized standards are able to offer a great and beneficial guidance to the sustainability of the project.

Due to the differences of climatic and economic condition, cultural and institutional background between China and the UK, plenty of indicators from BREEAM for Communities will not apply to assess the project in China. And such maladjustment is easily observable in the review through the case study of the process of urban village renovation project implemented in Kunming. Constructional standards in each country are various, but generally they are set to meet the minimal standard during the construction projects that are not conducive to the long-term development of construction industry. It has the possibility to against the sustainable development localized which needs to introduce innovative technology to enhance the sustainability of buildings and reduce the impacts of construction on environment. Using the urban village renovation project discussed in chapter of case study as an example, at the planning stage of the project, unified standards that was announced by City planning department of Kunming in the document of ¡Guidance for Specialized plan of Tai He urban village renovation project¡ identified most of the designing details such as the functions, construction quantity, height limitation of buildings. Furthermore, followed by ¡Planning Administration and Technical Regulation of Kunming (PATRK)¡, great designing details that are the basic requirements for a project implemented in Kunming have been set and modified with the current local

conditions several times, such as urban construction land, control of architecture capacity, parking lot, green open space, landscape, and building height. By presenting the case study in previous chapters, projects that are lead by predetermined standards from PATRK have partly corresponded with the standards from BREEAM for Communities. Due to the differences of climatic, economic condition, cultural and institutional background, assessing the projects implemented in Kunming directly with current indicators in BREEAM for Communities lacks considerations of measures that are suitable to local conditions (see details in chapter 7, p.172). Therefore, being managed with same standard of local planning system, the urban village renovation projects implemented in Kunming are under control by setting the detailed design regulations in related policy during the planning stage. Approaching a sustainable way to improve the urban village renovation project in Kunming, design regulations should be made by planners and get architects, developers and other stakeholders involved. At the same time, each category of BREEAM for Communities (Table) can do better by bringing them into the related conclusive policy. However, applying the standards of BREEAM for Communities as the reference to review the urban village renovation projects in Kunming, it is easily observable that projects of urban village in Kunming still have chances to be developed in sustainable way.

By introducing standards from BREEAM for Communities as the methods to give a hand to find their own way to be sustainable, it is a good opportunity for the urban village renovation project in Kunming. More importantly, further corresponding research on local conditions that may offer detailed factors to BREEAM for Communities as the adjustment criteria are overwhelming. Furthermore, acceptance of green building which always been considered as high cost, high standards, and high tech by consumer in housing consumption market is still a big issue that may directly impact upon introducing the BREEAM for Communities in China. In terms of the ambitions in the future, I would like to focus more on following interrogation:

Combining considerations of social effect and economic benefit, for what reason local governments and developers will believe that introducing BREEAM for Communities could be the strength for future development; and also, thinking as a house purchaser, for what reason I can be ensured that projects followed by standards from BREEAM for Communities could offer a better quality living that is worth of paying the high-price house.

7.6 Summary

At the end of the dissertation, this research has just explored some local problems, giving a small range from within a whole body of knowledge. The scope and depth of the research is limited, but it has encouraged the current researcher to plan to explore a more in-depth study in future research. Furthermore, urbanization in most of the medium-sized cities of China is still in the initial stages of urban development, hence the research into a suitable direction for sustainable urban development in Kunming,

China, is particularly and immediately important.

The dissertation, focused on the planning stages of urban village renovation projects, has reviewed the renovation programme in Kunming from a macro point of view. In order to achieve a sustainable building environment for urban village renovation, the intention of my research is to give a full understanding of what kind of conditions can be improved or avoided during the urban village renovation projects in Kunming, from the perspective of sustainable development. Furthermore, only in a sustainable building environment, can the potential of sustainable building be fully expressed, and this is also my next research proposition, which expects to approach a suitable construction method for Kunming, Yunan, China.

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Appendices

Appendix A: Questionnaire

University Of Huddersfield
School of Art, Design and Architecture

研究参与者同意书

您好，感谢您参与本研究项目的相关调查！

¡ 项目名称：

中文：昆明旧城保护与城中村改造----可持续建筑设计方法探讨

英文：**City Conservation and ¡Urban Villages¡ in Kunming ----Sustainable Method in Architectural Design**

¡ 以发放问卷的方式，分析量化城中村及其周边居民对生活现状的评价、需求、希望；建筑师、规划师对城中村改造项目的见解；以及开发商对城中村改造项目的期望和定位。根据问卷调查的结果，结合可持续建筑设计的相关理论知识，给出研究者的见解。

¡ 本套问卷分为三个大组，即居民，建筑、规划师、开发商，每个大组的问题数目从 10-20 个不等。居民组分为四个小组，即现居住在城中村内的居民、居住在已改建完成的城中村内居民、居住在城中村周围的居民以及城中村内的租房户。

¡ 此研究项目的所有资料，将由我们负责保存。除本研究外不会提供别人使用。对您所提供的资料，将持保密的态度，您的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我们维护您的隐私。

¡ 您可自由决定是否填答本问卷，不一定需要参加。

¡您无需提出任何理由便可拒绝填答本问卷，且不会引起任何不愉快或不良影响。

¡ 您同意参加本研究后，若在填答过程中，有让您觉得不舒服的内容，您可随时拒答，中途退出，不会引起任何不愉快或不良影响。

¡ 本研究结果原则上不提供给您，若您想知道本研究结果，请和主持人讨论。

我_____已经阅读了来自英国哈德斯菲尔德大学艺术设计与建筑学院的姜雯提供的研究项目资料，并且所有的问题都是本人自愿回答。

我自愿同意参加这一项目。我知道此研究的所有资料除本研究外不会提供别人使用。对我所提供的资料，将持保密的态度，我的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我的隐私将收到保护。

我知道我可自由决定是否填答本问卷，不一定需要参加。我无需提出任何理由便可拒绝填答本问卷，且不会引起任何不愉快或不良影响。我同意参加本研究后，若在填答过程中，有让我觉得不舒服的内容，我可随时拒答，中途退出，不会引起任何不愉快或不良影响。

我同意：

用多种方法与他人分享我的评论、记录和经验。（照片、图片、书面账目、报告、材料）

就照片来说，我允许我所提供的照片被公开。

据我所知，以观察收集的所有信息将被安全的保存，我的意见将被准确地记录并且任何相关图片，只有在征得本人同意才能公开。。

签字：_____

日期:_____

居民调查问卷

第一组：现居城中村内的居民

居民信息：

1．性别：

a．男
b．女

2．年龄段：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您的户口性质是：

a.昆明农村
b.昆明城市
c.昆明以外

4．您的教育程度是：

a．小学
b．中学
c．大学
d．以上

5．是否属于昆明市旧城改造的拆迁户：

a．是
b．否

6．您在昆明居住了多长时间：

a．不到一年
b．1-5 年
c．5-10 年
d．10-20 年
e．20-30 年
f．30-50 年
g．50 年以上

7．您的收入来源是(多选)：

a．固定工作
b．个体零售
c．收租
d．父母给予
e．在外务工
f．其他

居民观点：

1．支持的原因是（多选）：

a．改善居住环境
b．提高生活质量
c．融入城市生活
d．能够拥有完善的公共设施

2．反对的原因是（多选）：

a．影响了长久形成的生活习惯
b．对补偿措施的不满意以及不确定性
c．影响了出租房的租金收入
d．房租的提高使外来务工人员的生活压力增加

3．您认为一些居民不支持拆迁的原因是（多选）：

a．补偿标准过低
b．不愿意离开原有的生活圈
c．无力购买新居
d．无处安置
e．其他：_____

4．您选择居住在这里的原因是（多选）：

a．在这里拥有房产
b．交通方便
c．租金低廉
d．生活方便
e．喜欢传统社区活氛围
f．购物便利
g．邻里和谐
h．其他：_____

5．您对居住的社区内卫生条件情况的评价是：

a．卫生，整洁
b．谈不上整洁，又不算太差
c．脏乱差

您觉得最严重的问题是：_____

6．您对居住的社区治安状况评价：

a．很满意
b．满意
c．不满意
d．非常不满意

7．您认为您居住的社区存在以下哪些问题(多选)：

a．购物不便
b．用水、用电不便
c．居住环境差
d．入学就医困难
e．消防治安隐患大
f．绿化环境差
g．外来人员多，人口复杂
h．公共基础设施不足
i．受到噪音，采光问题的影响
j．大量的村民自建房影响了居住环境
k．¡ 握手楼¡ 现象严重，存在严重的安全隐患
l．停车泊位严重缺乏
m．交通拥堵，出行不便
n．其他：_____

8．您最喜欢您居住社区内的哪些特色（多选）：

a．干净的河流
b．高大的古树
c．幽静的自家宅院
d．古朴的祠堂寺庙
e．传统节日活动
f．和谐的邻里关系

9．就您个人而言，城中村在您生活中的地位是（多选）：

a. 故乡
b. 长期居住地
c. 暂住地
d. 其他

10．您认为政府有关部门有没有深入村中采集村民意见：

a. 有深入
b. 一般
c. 没有

11．您是否愿意参与到城中村改造的决策讨论中：

a. 愿意
b. 不是太感兴趣
c. 不愿意

可持续设计相关问题调查：

<u>关于气候变化</u>

1．是否有自来水网：

a．有
b．无

2．是否有城市电网：

a．有
b．无

3．煤气管道或者是天然气管道：

a．有
b．无

4．您居住的社区内的排水情况：

a．排水状况良好
b．排水缓慢
c．排水缓慢，雨天寸步难行
d．污水横流

5．排水是否连接城市官网：

a．是
b．否

6．您对居住的社区内供水系统生活水质量的评价是：

a．很满意
b．满意
c．不满意
d．非常不满意

7．有太阳能供应生活用水吗？

a．有
b．没有

关于资源利用

1．您现有的住宅建筑结构是：

a．砖木结构
b．砖混结构
c．框架结构

2．您现有的住宅建筑结构材料包括（多选）：

a．木材

b．竹材

c．石材

d．水泥

e．混凝土

f．金属

g．砖瓦

h．陶瓷

i．玻璃

j．工程塑料

k．复合材料

3．在您所居住的社区内，垃圾有分类收集和统一管理吗？

a．有
b．没有

关于交通设施

1．在您一天的生活中，有以下何种类型的生活习惯（多选）：

a．晨练
b．散步
c．逛集市
d．到邻居家串门
e．和邻居们聊天
f．健身
g．遛狗

2．您居住的社区或者是附近有那些娱乐休闲设施（多选）：

a．林荫步道
b．可供休闲的桌椅
c．健身器材
d．球场
e．其他_____

3．从您居住的社区要步行多长时间才能到达最近的公园绿地：

a．15 分钟以内

b．15-30 分钟
c．30 分钟-1 小时
d．1 小时以上

4．您对居住的社区周围公共交通的评价是：

a．很方便
b．方便
c．不方便
d．非常不方便

5．您出行一般选择什么交通工具（多选）：

a．公交车
b．自行车
c．电动车
d．摩托车
e．私家车
f．计程车

关于生态环境

1．在您居住的社区和周围绿地内的植物生长状况是：

a．很好
b．比较好
c．一般
d．比较差
e．非常差

2．您认为您居住的社区和附近的绿地公园哪个季节最漂亮（多选）？

a．春
b．夏
c．秋
d．东
原因是：_____

3．请对您在居住的社区和附近的公园绿化环境做一个身心舒适度的评价：

很舒适
a．1
b．2
c．3

d．4
e．5
很不舒适

4．您认为昆明的空气质量如何：

a．很好
b．比较好
c．一般
d．比较差
e．非常差

5．您认为昆明最严重的污染是（多选）：

a．土地
b．水源
c．空气
d．噪音
e．其他：_____

关于社区

1．在您的周围，外来务工人员的孩子正常上学现象普遍吗？

a．普遍
b．不普遍

2．在您身边的人是如何看待外来人口的？为什么？

a．平等看待
b．不愿意过多交流
原因：_____

3．您觉得流动人口所关心的热点问题有哪些（多选）？

a．住房困难
b．看病难
c．就业难
d．小孩上学难
e．其他：_____

4．在您居住的社区内，居民对公共租赁住房的需求量大吗？

a．需求量不大

b．有一定需求
c．需求量很大

5．您作为拆迁户您希望选择何种安置方式：

a．原址安置
b．外迁安置
c．货币化补偿，自行选购房产

6．您居住的社区缺乏哪些基础设施（多选）：

a．大型超市，菜市场
b．公共安全设施
c．道路清洁维护
d．夜间照明
e．公共娱乐休闲场所
f．社区医疗点
g．其他_____

关于场所

1．您对您居住的社区所在区位的评价是（多选）：

a．人口流动性大
b．交通方便
c．人口密集
d．消费水平高
e．文化氛围浓厚
f．其他：_____

2．您所居住的社区内是否有热闹的商业街？

a．有
b．没有

3．您所居住社区内是否设有无障碍设施？

a．有
b．没有

4．您所居住的社区内是否有舒适的林荫绿道？

a．有

b．没有

5．您认为您所居住的社区建筑密度情况是：

a．尺度适宜，密度较小
b．密度过高，略显拥挤
c．尺度狭窄，感到压力

关于建筑

1．在您居住的社区内，有以下哪些特征（多选）：

a．供奉有祠堂
b．塔
c．其他古建
d．古木
e．古街
f．集市

2．您现有的住宅的已使用年限为：

a．5-15 年
b．15-25 年
c．25-35 年
d．35-45 年
e．45 年以上

3．您被拆迁的面积有多少：

a．50 平方米以下
b．50 至 100 平方米
c．100 至 150 平方米
d．150-200 平方米
e．200 平方米以上

Group 1: Current residents

Socio-demographic information

1. Gender：

c. Male
d. Female

2. Age:

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Household type：

a. Rural area
b. City
c. Outside Kunming

4. Educational background：

a. Primary school
b. Secondary education
c. University
d. Higher

5. Are you relocatees?：

a. Yes
b. No

6. How long have you lived here?

a. Less than one year
b. 1-5 years

c. 5-10 years
d. 10-20 years
e. 20-30 years
f. 30-50 years
e. Over 50 years

7. Source of income：

a. A permanent job
b. Retail trade
c. Collecting rents
d. Parents
e. Worker
f. Other

Current residents; views regarding urban village renovation projects in Kunming

1. Reasons for supporting the urban village renovation project:

a. Improvement of living environment
b. Improvement in quality of life
c. Integrating into city life
d. Improvement of social infrastructures

2. Reasons for opposition to village renovation project:

a. Effect on people's lifestyle
b. Unsatisfactory and uncertain compensation
c. Effect on rental income
d. Increase in rents puts lots of pressure on migrant workers.

3. Reasons why villagers do not support demolition
a. Low standard of compensation
b. Do not want to leave the original living environment
c. Unable to buy a new house
d. Have nowhere to settle down

4. Reasons why you chose to live here:

a. Have own property here
b. Convenient transport system
c. Low rent
d. Provision of conveniences for citizens

e. Enjoy the atmosphere of traditional community life
f. Convenient shopping place
g. Harmonious neighbourhood

5. Evaluation of community sanitary conditions:

a. Clean and tidy village
b. Average
c. Dirty, disorderly and poor conditions

Other reasons：_____

6. Evaluation of security issues

a. Very satisfactory
b. Satisfactory
c. unsatisfactory
d. Very unsatisfactory

7. Existing problems in urban villages:

a. Inconvenience of shopping
b. Inconvenience of water and electricity services
c. Poor living conditions
d. Inconvenience of getting to schools or hospitals
e. Hidden dangers in fire risks
f. Lack of ¡green¡ environment
g. Complex population
h. Lack of social infrastructure
i. Impact of noise and lighting problems
j. Self-built rural housing affecting the living environment
k. Hidden dangers of ¡handshake building¡
m. Having insufficient space for car parking
n. Traffic jams

8. Favourite features in the community：

a. Flowing rivers
b. Ancient trees
c. Private single family dwellings
d. Temples and monasteries
e. Traditional festival activities
f. Harmonious neighbourhood

9. For you, the urban village is:

a. My home town
b. My long-term town
c. Temporary accommodation
d. Other

10. In the urban village renovation project, has the government collected detailed views from villagers?

a. Yes
b. To some extent
c. No

11. Are you willing to participate in the decision-making process during the urban village renovation project?

a. Yes
b. Not very interested
c. No

Issues of Climate Change：

1. Is there a running water network here?：

a. Yes
b. No

2. Is there an urban power network?：

a. Yes
b. No

3. Is there natural gas pipeline here：

a. Yes
b. No

4. Condition of water drainage：

a. In good condition
b. Slow drainage
c. Difficult to go outside during rainy day

d. Uncontrolled urban sewage

5. Does urban waste water discharge into rivers?

a. Yes
b. No

6. Your assessment of water quality：

a. Very satisfactory
b. Satisfactory
c. unsatisfactory
d. Very unsatisfactory

7. Is solar energy available?

a. Yes
b. No

Utilization of Energy

1. Building structure：

a. Brick-wood structure
b. Brick-concrete-structure
c. Frame construction

2. Building materials：

a. Wood
b. Bamboo wood
c. Stone
d. Concrete
e. Metal
f. Tile
g. Glass
h. Engineering plastics
i. Composite materials

3. Domestic waste-sorting collection:

a. Yes
b. No

Transformation option

1. Habits and customs in your daily life：

a. Morning exercise
b. Stroll
c. Going to an open market
d. Chatting with neighbours
e. Going to the gym
f. Walking the dog

2. Available recreation facilities：

a. Footpaths
b. Tables and chairs in the park
c. Public fitness equipment
d. Playing courts
e. Other

3. Time to get to nearest green space from home：

a. 15minutes
b. 15-30 minutes
c. 30 minutes -1hour
d. Above 1hour

4. Evaluation of public transport：

a. Very convenient
b. convenient
c. Inconvenient
d. Very inconvenient

5. Preferred vehicle options：

a. Buses
b. Bicycle
c. Electric motor car
d. Motorcycle
e. Private car
f. Taxi

Natural environment

1. Condition of plant growth around your community：

a. Very good
b. Good
c. Average
d. Poor
e. Very poor

2. The most beautiful season??

a. Spring
b. Summer
c. Autumn
d. Winter

3. Evaluation of physical and psychological comfort of your community green space：

Very comfortable
a. 1
b. 2
c. 3
d. 4
e. 5
Not comfortable

4. Quality of the air：

a. Very good
b. Good
c. Average
d. Poor
e. Very poor

5. The most serious pollution：

a. Soil
b. Water
c. Air
d. Noise
e. Other

Community issues

1. Can children of migrant workers find school places easily?

a. Yes
b. No

2. What do you think about migrant workers?

a. They should have equal treatment
b. I do not want to communicate with them much

3. What kind of hot issues do migrant workers care about?

a. Shortage of housing
b. The difficulty of getting medical treatment
c. Employment difficulties
d. Getting their children into a school
e. Social security

4. What is the demand for rented housing??

a. Little demand
b. Average demand
c. High demand

5. What kind of resettlement method would you like?

a. Resettlement in the original place
b. Resettlement outside the place where you were living
c. Monetary compensation

6. What kind of social infrastructure does the community lack?

a. Supermarkets
b. Night lighting system
c. Entertainment
d. Community medical service
e. Other

Place-shaping issues

1. What is your evaluation of your community location：

a. Population mobility
b. Convenient transport system

c. Densely populated
d. High level of consumption
e. Cultural atmosphere
f. Other

2. Is there a commercial street in your community??

a. Yes
b. No

3. Is there a barrier-free design in your community?

a. Yes
b. No
c. Do not know

4. Are there footpaths in your community??

a. Yes
b. No

5. What is the building density in your community：

a. Suitable building scale and moderate density
b. High density and a little crowded
c. Narrow scale and a feeling of oppression

Architectural issues

1. What kind of architecture do you have in your community?

a. Ancestral temple
b. Pagoda
c. Other ancient buildings
d. Ancient trees
e. Traditional streets
f. Traditional market

2. How many years has your house been in service?：

a. 5-15 years
b. 15-25 years
c. 25-35 years
d. 35-45 years

e. Above 45 years

3. What is the demolished building area per resident?：

a. Less than 50 square metres
b. 50-100 square metres
c. 100-150 square metres
d. 150-200 square metres
e. Above 200 square metres

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¡ 以发放问卷的方式，分析量化城中村及其周边居民对生活现状的评价、需求、希望；建筑师、规划师对城中村改造项目的见解；以及开发商对城中村改造项目的期望和定位。根据问卷调查的结果，结合可持续建筑设计的相关理论知识，给出研究者的见解。

¡ 本套问卷分为三个大组，即居民，建筑、规划师、开发商，每个大组的问题数目从 10-20 个不等。居民组分为四个小组，即现居住在城中村内的居民、居住在已改建完成的城中村内居民、居住在城中村周围的居民以及城中村内的租房户。

¡ 此研究项目的所有资料，将由我们负责保存。除本研究外不会提供别人使用。对您所提供的资料，将持保密的态度，您的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我们维护您的隐私。

¡ 您可自由决定是否填答本问卷，不一定需要参加。

¡您无需提出任何理由便可拒绝填答本问卷，且不会引起任何不愉快或不良影响。

¡ 您同意参加本研究后，若在填答过程中，有让您觉得不舒服的内容，您可随时拒答，中途退出，不会引起任何不愉快或不良影响。

¡ 本研究结果原则上不提供给您，若您想知道本研究结果，请和主持人讨论。

我_____已经阅读了来自英国哈德斯菲尔德大学艺术设计与建筑学院的姜雯提供的研究项目资料，并且所有的问题都是本人自愿回答。

我自愿同意参加这一项目。我知道此研究的所有资料除本研究外不会提供别人使用。对我所提供的资料，将持保密的态度，我的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我的隐私将收到保护。

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我同意：

用多种方法与他人分享我的评论、记录和经验。（照片、图片、书面账目、报告、材料）

就照片来说，我允许我所提供的照片被公开。

据我所知，以观察收集的所有信息将被安全的保存，我的意见将被准确地记录并且任何相关图片，只有在征得本人同意才能公开。。

签字: _____

日期:_____

建筑师、规划师问卷

建筑师、规划师信息：

1．性别:

a．男
b．女

2．年龄段

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您认为昆明市旧城区需要着重保护的是（多选）：

a．传统街道
b．民居
c．传统集市
d．文物古迹（建筑，植被）
e．传统风土人情，生活方式，传统工艺
f．长期居住在旧城区的市民的生活方式
g．历史事迹
h．其他：_____

4．您认为旧城区保护与改造的侧重点应该是（多选）：

a．保护历史文化街区和历史建筑风貌
b．改善居民生活环境
c．提升城市形象
d．发展区域经济，提升土地价值
e．提升土地利用效率
f．改善旧城区内的公共交通服务
g．其他_____

5．您认为旧城区保护与改造后取得的理想成果应该是（多选）：

a．历史文化特色的居住社区
b．历史文化特色的商贸区
c．历史文化特色的旅游区
d．历史文化特色的历史建筑群
e．历史文化特色的博物馆
f．现代都市特色的新型社区
g．延续旧城传统生活模式居住区
h．延续传统生活方式的现代居住区
i．商住结合的传统社区
j．其他_____

6．您认为对旧城区保护与改造的模式应该是：

a．政府主导，适当引入市场机制
b．完全引入市场机制
c．其他方式_____

7．对被拆迁居民如何进行补偿？

a．货币补偿
b．房屋产权调换
c．其他方式_____

8．您认为以下哪几个方面能够体现¡ 昆明城市精神¡：

a．四季如春的气候特点
b．多元文化的交汇点
c．适合居住的生态城市
d．千年的建城历史
e．其他：_____

9．您认为在城中村改造项目过程中是否有必要成立专门的小组来保护和调查城中村的传统文化：

a．非常有必要
b．无所谓
c．没有必要

10．您认为昆明市城中村的文化能给昆明带来什么（多选）：

a．独具一格的城市特色
b．亲切的人文气息
c．珍贵的旅游资源

d．其他：_____

11．利用城中村的文化打造旅游景点，您是否赞同：

a．是
b．否
原因：_____

12．您认为城中村改造的根本原因包括（多选）：

a．住房市场供需之间的巨大缺口是城中村存在与发展的市场原因
b．城中村本身问题众多，阻碍了城市发展
c．城乡二元化管理制度在城市化进程中的衍生物
d．村民们对改善生活环境的迫切需求
e．其他：_____

13．您觉得城中村改造保留传统文化的益处是（多选）：

a．使得昆明历史文化名城的名声得以保存
b．村民的生活更加丰富多彩
c．城市建设的发展需要保护文化传统
d．不让独特的春城文化被世人淡忘
e．其他：_____

14．您觉得政府应该如何在城中村改造中保留村民文化传统（多选）：

a．功能布局、建筑设计、景观设计等手段保持村落原有的传统形态、肌理和历史建筑
b．在特定的文化古迹处，应该重点加以保护，防止人为破环
c．建造历史博物馆，用照片和资料记载村落的历史发展
d．村民的话习俗应该保留，对村民的文化活动给予一定的支持和推广
e．您的建议是：_____

15．您认为城中村改造的困难是（多选）：

a．城中村内部通常没有统一的规划和管理
b．城中村的发展有很大的自发性和盲目性
c．城中村房屋土地产权不清
d．难以安置居民就业
e．村民自建房难以控制
f．环境脏乱、人流混杂、治安混乱
g．城中村内村名的生产方式、生活方式、景观建设等方面任然保留浓厚的农民特征
h．其他：_____

Part 3: Architects and city planners

Information of architects and city planners:

1. Gender:

a. Male
b. Female

2. Age

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Key protection issue：

a. Traditional streets
b. Vernacular dwellings
c. Traditional markets
d. Architectural heritage
e. Local conditions, and customs and traditional handicrafts
f. Lifestyle
g. Historical stories and deeds
h. Other

4. Important issues for urban village renovation projects：

a. To protect traditional streets and buildings
b. To improve the living environment of residents
c. To improve the city¡s image
d. To develop regional economy and enhance the value of the land
e. To enhance the efficiency of land use
f. To improve the public transport services of old town areas
g. Other

5. Desired outcomes of urban village renovation projects：

a. Historical and cultural residential area
b. Historical and cultural commercial centre
c. Historical and cultural tourist district
d. Historical and cultural building complex
e. Historical and cultural museum
f. Modern urban communities
g. Modern living area with traditional lifestyle
h. Commercial and residential areas combined with traditional community
i. Other

6. Mode of urban village renovation project：

a. Led by government and introducing market mechanisms appropriately
b. Introducing market mechanisms completely
c. Other

7. Compensation mode？

a. Monetary compensation
b. Property rights exchange
c. Other

8. City spirit of Kunming：

a. Like Spring all year around
b. Multi-cultural
c. Liveable eco-city
d. The history of the city
e. Other

9. Necessity of researching the culture of urban villages：

a. Very necessary
b. Doesn¡t matter
c. Not necessary

10. What can urban village culture bring?：

a. Unique features of the city
b. Human atmosphere
c. Tourist resources
d. Other

11. Do you agree that tourist attractions should be created by urban village innovation projects：

a. Yes
b. No

12. Basic reasons for urban village renovation projects：

a. A huge gap between supply and demand in the housing market is the market cause for the development of urban villages
b. The built-in problems of urban villages hinder urban development
c. The demand for improvement of the living environment of local residents
d. Other

13. The benefits of maintaining traditional culture in the urban village innovation projects：

a. Sustaining the reputation of a famous historic and cultural city
b. Villagers have a rich and colourful life
c. Urban development needs to protect cultural heritage
d. Keeping the unique culture of ¡Spring city¡
e. Other

14. How to keep the traditional culture of urban villages：

a. Maintaining their traditional form, texture and historic buildings by functional layout, building design and landscape design
b. More attention should be paid to ancient buildings and local culture, in particular cultural relics and historic sites
c. Build a history museum and record the historical development of the villages with photos and reading materials
d. Maintain the cultural customs and give appropriate support to cultural activities in villages

15. The difficulties of urban village innovation projects：

a. There is no integrated planning and management in urban villages
b. The development of urban villages is spontaneous and short-sighted
c. The ownership of land and housing is unclear in urban villages
d. It is difficult to provide jobs for local people
e. It is hard to control the self-built housing in urban villages
f. Bad living environment, mixed population and disorder of internal security
g. Other

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签字：_____

日期:_____

居民问卷调查

第三组：现居城中村周围的居民

居民信息：

1．性别：

a．男
b．女

2．年龄段：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您的教育程度是：

a．小学
b．中学
c．大学
d．以上

4．是否属于昆明市旧城改造的拆迁户：

a．是
b．否

5．您在昆明居住了多长时间：

a．不到一年
b．1-5 年
c．5-10 年
d．10-20 年
e．20-30 年
f．30-50 年

g．50 年以上

6．您的收入来源是：

a．固定工作
b．个体零售
c．收租
d．其他

居民观点：

1．您认为旧城区改造的目的是（多选）：

a．增强城市承载能力，完善城市服务功能
b．改变城市景观面貌，优化城市生态环境
c．利用城市现有设施，提高土地利用效率
d．传承城市历史文脉，保留城市传统文化
e．扶持城市弱势群体，改善居民居住条件
f．其他：_____

2．您认为昆明市旧城区需要保护的是（多选）：

a．传统街道
b．城中村
c．民居
d．传统集市
e．民间文化
f．建筑古迹
g．传统的生活方式和手工作坊
h．其他：_____

3．您平时会基于什么样的原因去老街区逛一逛呢（多选）？

a．跟亲戚朋友购物
b．探亲
c．特意来还念
d．习惯
e．因为有趣的历史文化
f．因为有有趣的集市
g．其他：_____

Group 3: Surrounding residents

a. Socio-demographic

1. Gender：

a. Male
b. Female

2. Age：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Educational background：

a. Primary school
b. Secondary school
c. University
d. Higher

4. Are you relocatees：

a. Yes
b. No

5. How long have you lived here：

a. Less than one year
b. 1-5 years
c. 5-10 years
d. 10-20 years
e. 20-30 years
f. 30-50 years
g. Over 50 years

6. Source of income：

a. A permanent job
b. Retail trade
c. Collect rents
d. Other

Surrounding residents¡ views

1. The main purposes of urban village renovation projects：

a. To enhance urban capacity and improve the urban services functions
b. To optimize the urban ecological environment, to improve the city¡s image
c. To make full use of existing urban infrastructure and improve the efficiency of land use
d. To preserve the city's traditional culture
e. To support vulnerable groups and improve their living conditions
f. Other

2. Urban village renovation projects should protect：

a. Traditional streets
b. Urban villages
c. Vernacular dwellings
d. Traditional markets
e. Folk culture
f. Architectural heritage
g. Traditional lifestyle and handicraft workshops
h. Other

3. For what reasons would you want to have a stroll in old street areas??

a. Shopping with friends
b. Visiting relatives
c. To think about the old days
d. Habit
e. For historical culture
f. For interesting traditional markets

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日期:_____

居民调查问卷

第四组：现居已改建完成城中村内居民

居民信息：

1．性别：

a．男
b．女

2．年龄段：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您的教育程度是：

a．小学
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b．否

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a．不到一年
b．1-5 年
c．5-10 年
d．10-20 年
e．20-30 年
f．30-50 年

g．50 年以上

6．您的收入来源是：

a．固定工作
b．个体零售
c．收租
d．其他

7．您不愿意拆迁的原因是：

a．补偿标准过低
b．不愿意离开原有的生活圈
c．无力购买新居
d．无处安置

居民观点：

1．您对城中村改造的满意度是：

a．很满意
b．满意
c．不满意
d．非常不满意

2．在城中村改造中，您比较关注以下哪些问题（多选）：

a．安置补偿标准
b．何时搬进新居
c．房屋拆迁后的生活来源
d．就业问题
e．养老保险问题
f．收入降低的问题
g．拆迁过程中的违法问题
h．集体分红
i．改造期间的居住环境
j．改造后房屋结构、质量、产权问题
k．房租价格
l．新生活环境的适应问题
m．新生活成本的提高
n．搬迁后的居住环境
o．其他

3．您对政府给予的补偿是否满意？

a．很满意
b．满意
c．不满意
d．非常不满意

4．相比以前的居住环境，您对现在的居住环境是否满意？

a．很满意
b．满意
c．不满意
d．非常不满意

5．您认为城中村改造解决了以下哪些问题（多选）？

a．就医不便
b．购物不便
c．用水、用电不便
d．居住环境差
e．入学就医困难
f．消防治安隐患大
g．绿化环境差
h．外来人员多，人口复杂
i．公共基础设施不足
j．受到噪音，采光问题的影响
k．大量的村民自建房影响了居住环境
l．¡ 握手楼¡ 现象严重，存在严重的安全隐患
m．停车泊位严重缺乏
n．交通拥堵，出行不便

6．您认为以下哪些特色现在已经找不到了（多选）：

a．干净的河流
b．高大的古树
c．幽静的自家宅院
d．古朴的祠堂寺庙
e．传统节日活动
f．和谐的邻里关系
g．市井文化

7．您作为拆迁户您选择了何种安置方式：

a．原址安置
b．外迁安置
c．货币化补偿，自行选购房产

Group 4: Relocatees in new community

Socio-demographic:

1. Gender：

a. Male
b. Female

2. Age：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Educational Background：

a. Primary school
b. Middle school
c. University
d. Higher

4. Are you relocatees?

a. Yes
b. No

5. How long have you lived in Kunming?

a. Less than one year
b. 1-5years
c. 5-10 years
d. 10-20 years
e. 20-30 years
f. 30-50 years
g. Over 50 years

6. Source of income：

a. A permanent job
b. Retail trade
c. Collect rents
d. Other

7. Reasons why you do not want to move away during the process of the project：

a. Not enough compensation
b. Do not want to change my living environment
c. Cannot afford a new house
d. Have nowhere else to live

Relocatees; views

1. Degree of satisfaction with the urban village reconstruction project：

a. Very satisfied
b. Satisfied
c. Dissatisfied
d. Very dissatisfied

2. List of concerns：

a. Compensation standards
b. Length of time given to move into a compensation house
c. Source of income after the urban village renovation project
d. Employment
e. Reduction in income
f. Collective bonus
g. The quality of housing and property rights after transformation
h. Rental income
i. Adapting to a new life in the city
j. Increased cost of living
k. Living environment after the urban village renovation project

3. Government compensation?

a. Very satisfied
b. Satisfied
c. Dissatisfied

d. Very dissatisfied

4. Are you satisfied with the current living environment??

a. Very satisfied
b. Satisfied
c. Dissatisfied
d. Very dissatisfied

5. Solved problems?

a. Inconvenience of medical treatment
b. Inconvenience of shopping destinations
c. Inconvenience of electricity and water facilities
d. Poor living environment
e. Lack of educational facilities
f. Fire security risks
g. Poor green environment
h. Large number of migrant workers
i. Lack of public facilities
j. Noise and lighting problems for residential housing
k. A large amount of self-built housing which was out of control
l. Security risks of ¡shaking hands¡ buildings
m. Lack of parking spaces
n. Traffic jams

6. Missing features:

a. Clean rivers
b. Ancient trees
c. Private messuage
d. Ancestral temples
e. Traditional festival activities
f. Harmonious neighbourhood
g. Civil culture

7. Resettlement mode:

a. Relocated in same place
b. Resettlement in different place
c. Currency indemnity

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签字：_____

日期:_____

开发商问卷调查

1．性别：

a．男
b．女

2．年龄段：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您对昆明的历史文化的了解程度：

a．非常了解
b．了解
c．不了解

4．您期望的¡ 城中村¡ 改造项目应该如何进行（多选）：

a．彻底改造，重新规划建设，给村民创造良好的生活环境
b．保留部分有历史价值的建筑，结合当地文化特色进行规划重建，形成新兴的旅游目的地
c．充分尊重地块的历史地缘，以文化和传统生活为建设重点进行新的规划设计
d．在原有基础上完善，以整改修缮为主
e．新兴商住结合的综合体式开发，期望成为城市的新地标

5．您认为旧城区保护与改造工作的侧重点是什么（多选）？

a．保护历史文化街区和风貌建筑
b．改善居民生活环境与市容市貌
c．发展区域经济，提升土地价值
d．其他_____

6. 您的有关部门有没有深入村中采集村民意见：

a. 有深入
b. 一般
c. 没有

7．您认为您的城中村项目适合引进什么类型的城市产业？

a．商业地产
b．旅游地产
c．工业地产
d．文化创意产业
e．其他：_____

Part 2: Developers

1. Gender：

a. Male
b. Female

2. Age：

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Cultural understanding of Kunming：

a. A good understanding
b. Some understanding
c. Do not understand

4. What's your expectation of urban village innovation project outcomes?

a. Change completely in form and give a fine living environment to villagers
b. Maintain some of the old but potentially valuable buildings, and combine with ethnic and cultural identity to form new attractions
c. Respect the local historical culture and focus on traditional lifestyle within new planning
d. Focus on restoration based on the original condition
e. Combine with commercial and residential development to create a new landmark

5. Points of focus in urban village renovation projects?

a. Protection of historical and cultural blocks and characterful buildings
b. Improving the living environment and the image of the city
c. Developing regional economy and enhancing the value of the land

6. Collection of villagers' views：

a. Detailed information
b. Some information
c. None

7. The appropriate choice of urban industry?

a. Commercial real estate
b. Tourism
c. Industrial estate
d. Creative industries

University Of Huddersfield
School of Art, Design and Architecture

研究参与者同意书

您好，感谢您参与本研究项目的相关调查！

¡ 项目名称：

中文：昆明旧城保护与城中村改造----可持续建筑设计方法探讨

英文：**City Conservation and ¡Urban Villages¡ in Kunming ----Sustainable Method in Architectural Design**

¡ 以发放问卷的方式，分析量化城中村及其周边居民对生活现状的评价、需求、希望；建筑师、规划师对城中村改造项目的见解；以及开发商对城中村改造项目的期望和定位。根据问卷调查的结果，结合可持续建筑设计的相关理论知识，给出研究者的见解。

¡ 本套问卷分为三个大组，即居民，建筑、规划师、开发商，每个大组的问题数目从 10-20 个不等。居民组分为四个小组，即现居住在城中村内的居民、居住在已改建完成的城中村内居民、居住在城中村周围的居民以及城中村内的租房户。

¡ 此研究项目的所有资料，将由我们负责保存。除本研究外不会提供别人使用。对您所提供的资料，将持保密的态度，您的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我们维护您的隐私。

¡ 您可自由决定是否填答本问卷，不一定需要参加。

¡您无需提出任何理由便可拒绝填答本问卷，且不会引起任何不愉快或不良影响。

¡ 您同意参加本研究后，若在填答过程中，有让您觉得不舒服的内容，您可随时拒答，中途退出，不会引起任何不愉快或不良影响。

¡ 本研究结果原则上不提供给您，若您想知道本研究结果，请和主持人讨论。

我_____已经阅读了来自英国哈德斯菲尔德大学艺术设计与建筑学院的姜雯提供的研究项目资料，并且所有的问题都是本人自愿回答。

我自愿同意参加这一项目。我知道此研究的所有资料除本研究外不会提供别人使用。对我所提供的资料，将持保密的态度，我的姓名将会用一个研究号码代替。书面资料将会上锁，数位资料库将以密码管制。除了有关机构依法调查外，我的隐私将收到保护。

我知道我可自由决定是否填答本问卷，不一定需要参加。我无需提出任何理由便可拒绝填答本问卷，且不会引起任何不愉快或不良影响。我同意参加本研究后，若在填答过程中，有让我觉得不舒服的内容，我可随时拒答，中途退出，不会引起任何不愉快或不良影响。

我同意：

用多种方法与他人分享我的评论、记录和经验。（照片、图片、书面账目、报告、材料）

就照片来说，我允许我所提供的照片被公开。

据我所知，以观察收集的所有信息将被安全的保存，我的意见将被准确地记录并且任何相关图片，只有在征得本人同意才能公开。。

签字：_____

日期:_____

建筑师、规划师问卷

建筑师、规划师信息：

1.性别:

a．男
b．女

2．年龄段

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3．您认为昆明市旧城区需要着重保护的是（多选）：

a．传统街道
b．民居
c．传统集市
d．文物古迹（建筑，植被）
e．传统风土人情，生活方式，传统工艺
f．长期居住在旧城区的市民的生活方式
g．历史事迹
h．其他：_____

4．您认为旧城区保护与改造的侧重点应该是（多选）：

a．保护历史文化街区和历史建筑风貌
b．改善居民生活环境
c．提升城市形象
d．发展区域经济，提升土地价值
e．提升土地利用效率
f．改善旧城区内的公共交通服务
g．其他_____

5．您认为旧城区保护与改造后取得的理想成果应该是（多选）：

a．历史文化特色的居住社区
b．历史文化特色的商贸区
c．历史文化特色的旅游区
d．历史文化特色的历史建筑群
e．历史文化特色的博物馆
f．现代都市特色的新型社区
g．延续旧城传统生活模式居住区
h．延续传统生活方式的现代居住区
i．商住结合的传统社区
j．其他_____

6．您认为对旧城区保护与改造的模式应该是：

a．政府主导，适当引入市场机制
b．完全引入市场机制
c．其他方式_____

7．对被拆迁居民如何进行补偿？

a．货币补偿
b．房屋产权调换
c．其他方式_____

8．您认为以下哪几个方面能够体现¡ 昆明城市精神¡：

a．四季如春的气候特点
b．多元文化的交汇点
c．适合居住的生态城市
d．千年的建城历史
e．其他：_____

9．您认为在城中村改造项目过程中是否有必要成立专门的小组来保护和调查城中村的传统文化：

a．非常有必要
b．无所谓
c．没有必要

10．您认为昆明市城中村的文化能给昆明带来什么（多选）：

a．独具一格的城市特色
b．亲切的人文气息
c．珍贵的旅游资源

d．其他：_____

11．利用城中村的文化打造旅游景点，您是否赞同：

a．是
b．否
原因：_____

12．您认为城中村改造的根本原因包括（多选）：

a．住房市场供需之间的巨大缺口是城中村存在与发展的市场原因
b．城中村本身问题众多，阻碍了城市发展
c．城乡二元化管理制度在城市化进程中的衍生物
d．村民们对改善生活环境的迫切需求
e．其他：_____

13．您觉得城中村改造保留传统文化的益处是（多选）：

a．使得昆明历史文化名城的名声得以保存
b．村民的生活更加丰富多彩
c．城市建设的发展需要保护文化传统
d．不让独特的春城文化被世人淡忘
e．其他：_____

14．您觉得政府应该如何在城中村改造中保留村民文化传统（多选）：

a．功能布局、建筑设计、景观设计等手段保持村落原有的传统形态、肌理和历史建筑
b．在特定的文化古迹处，应该重点加以保护，防止人为破环
c．建造历史博物馆，用照片和资料记载村落的历史发展
d．村民的话习俗应该保留，对村民的文化活动给予一定的支持和推广
e．您的建议是：_____

15．您认为城中村改造的困难是（多选）：

a．城中村内部通常没有统一的规划和管理
b．城中村的发展有很大的自发性和盲目性
c．城中村房屋土地产权不清
d．难以安置居民就业
e．村民自建房难以控制
f．环境脏乱、人流混杂、治安混乱
g．城中村内村名的生产方式、生活方式、景观建设等方面任然保留浓厚的农民特征
h．其他：_____

Part 3: Architects and city planners

Information of architects and city planners:

1. Gender:

a. Male
b. Female

2. Age

a.15-20
b.21-25
c.26-30
d.31-40
e.41-50
f.51-60

3. Key protection issue：

a. Traditional streets
b. Vernacular dwellings
c. Traditional markets
d. Architectural heritage
e. Local conditions, and customs and traditional handicrafts
f. Lifestyle
g. Historical stories and deeds
h. Other

4. Important issues for urban village renovation projects：

a. To protect traditional streets and buildings
b. To improve the living environment of residents
c. To improve the city¡s image
d. To develop regional economy and enhance the value of the land
e. To enhance the efficiency of land use
f. To improve the public transport services of old town areas
g. Other

5. Desired outcomes of urban village renovation projects：

a. Historical and cultural residential area
b. Historical and cultural commercial centre
c. Historical and cultural tourist district
d. Historical and cultural building complex
e. Historical and cultural museum
f. Modern urban communities
g. Modern living area with traditional lifestyle
h. Commercial and residential areas combined with traditional community
i. Other

6. Mode of urban village renovation project：

a. Led by government and introducing market mechanisms appropriately
b. Introducing market mechanisms completely
c. Other

7. Compensation mode？

a. Monetary compensation
b. Property rights exchange
c. Other

8. City spirit of Kunming：

a. Like Spring all year around
b. Multi-cultural
c. Liveable eco-city
d. The history of the city
e. Other

9. Necessity of researching the culture of urban villages：

a. Very necessary
b. Doesn¡t matter
c. Not necessary

10. What can urban village culture bring?：

a. Unique features of the city
b. Human atmosphere
c. Tourist resources
d. Other

11. Do you agree that tourist attractions should be created by urban village innovation projects：

a. Yes
b. No

12. Basic reasons for urban village renovation projects：

a. A huge gap between supply and demand in the housing market is the market cause for the development of urban villages
b. The built-in problems of urban villages hinder urban development
c. The demand for improvement of the living environment of local residents
d. Other

13. The benefits of maintaining traditional culture in the urban village innovation projects：

a. Sustaining the reputation of a famous historic and cultural city
b. Villagers have a rich and colourful life
c. Urban development needs to protect cultural heritage
d. Keeping the unique culture of ¡Spring city¡
e. Other

14. How to keep the traditional culture of urban villages：

a. Maintaining their traditional form, texture and historic buildings by functional layout, building design and landscape design
b. More attention should be paid to ancient buildings and local culture, in particular cultural relics and historic sites
c. Build a history museum and record the historical development of the villages with photos and reading materials
d. Maintain the cultural customs and give appropriate support to cultural activities in villages

15. The difficulties of urban village innovation projects：

a. There is no integrated planning and management in urban villages
b. The development of urban villages is spontaneous and short-sighted
c. The ownership of land and housing is unclear in urban villages
d. It is difficult to provide jobs for local people
e. It is hard to control the self-built housing in urban villages
f. Bad living environment, mixed population and disorder of internal security
e. Other