Exploring active ageing outdoors
: A case study of Anqing, China

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Abstract

The combination of rapid population ageing and accelerating urbanisation in China is shaping the country's landscape significantly. By 2050, nearly 30% of the country's population will be older urban citizens. Older people are facing a variety of challenges to their well-being. For instance, the rise of "empty nests", which is caused by various factors such as the One Child Policy and young people leaving homes to seek better job opportunities in other cities, is challenging traditional filial piety as well as the lifestyle of older people's later lives.

Therefore, drawing upon the reflection on the relationship between place and active ageing, as well as referencing the concept and framework of age-friendly cities and communities, this research aims to explore how urban outdoor spaces influence active ageing and how to support older urban Chinese to age well in urban setting from the perspective of urban planning.

The investigation focuses on a typical third-tier city: Anqing, in south-east China. Data is collected by using qualitative methods, including interviews, focus groups, observations, participations, and document analysis. The findings of the fieldwork indicate that older Chinese are very fond of outdoor activities, and places could support older people to participate in activities of different kinds to meet needs at various levels. However, limited quantity and quality of space limited engagement and the lack of an effective parking policy resulted in older people losing the small spaces they could lay claim to. In some neighbourhoods older people were almost losing their right to the city. Community spaces and city centre are significant in supporting older people's local community networks, and societal engagement beyond communities; and the University for the Third Age is also important in drawing people from across several communities together. Much of this developing city's urban environment and outdoor space has been improved in the realm of age-friendliness, though there was still scope for further improvement if an overt age-friendly approach were taken. Some aspects did not improve a lot and even became worse due to rapid growth of the city. Planning professionals have paid increasing attention to the issue of ageing in their practice, but their performance is limited due to weakness of related planning policies as well as lack of integration of ageing reflections in planning education.

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Chapter 1. Introduction

1.1 Research background

China recognised that it was an ageing country in 1999. By the end of 2014, China had about 212 million older people, which accounted for 15.5% of the country's total population (NBSC, 2015), and it is predicted that in 2050 around 36.5% of Chinese will be aged 60 and over (UNDESA, 2015). At the same time, China's urbanisation rate will reach about 60% in 2020 (Jian and Huang, 2010), and probably around 75% in 2050 (Liu, 2011). Therefore, the two significant trends in urbanisation and population ageing are combining to change the landscape of the country profoundly. A report estimates that China's population would be 1.35 billion in 2050 (UNDESA, 2015). Drawing upon these, China's ageing population of urban areas would be about 0.4 billion, which accounts for nearly 29% of the country's population.

China's rapid urbanisation has two significant implications for older Chinese life. Firstly, older rural migrants have to face a new, unfamiliar urban environment. There are more than 100 million rural migrants living in the urban areas; although they may have made changes to their occupation, many of them have not achieved a change to their urban *hukou* status[1], which means that they are excluded from many benefits that urban residents are allowed (Lu and Chen, 2017). Secondly, urbanisation is changing the family structure. Current thinking in China suggests that large cities are preferred by working age or young people because these areas are seen as great magnets not only for capital investment, as Wang (2014) argues, but also for well educated, entrepreneurial people who are looking forward to working hard and making a better life there. Thus, sharp regional disparities drive people, especially young people, to move from their small home cities to more developed larger ones, often leaving their parents alone at home. The rise of "empty nest" older people challenges traditional filial piety that emphasises children's moral obligations to support their aged parents (Fan, 2006).

The One Child Policy has also exacerbated changes in urban families. The so-called "One Child Policy" was implemented by the Chinese government in 1979, under which married couples who were Han Chinese and lived in urban areas were allowed to have one child only. Chinese family size and structure has changed dramatically as a result of the policy, together with social transformation and economic development, causing a decrease in parents' reliance on their children in their old age (Deutsch, 2006; Guo, 2010b; Feng *et al.*, 2014). In China, it

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[1] *Hukou* is the Chinese household registration system.

is estimated that only 37.8% of elders live with their children (CHARLS Research Team, 2013).

The issues in relation to an ageing urban population are not only taking place in China, but also throughout the world. The United Nations estimates that the global share of the age group (aged 60 and over) will reach 21.5% by 2050 (UNDESA, 2015). What is accompanying the trend is a rapid growth in urban population. The world's urban population is projected to grow to 6.3 billion by 2050, which accounts for 65% of the total population (UNDESA, 2015).

Therefore, in such a context, most older people throughout the world, including China, are having to look for a broader range of resources beyond their families to support a good quality of life. The urban setting, including neighbourhoods, can provide opportunities, because there are also an increasing number of studies that have confirmed the association between older people's quality of life (QoL) and the urban environment (Beard and Petitot, 2010). Moreover, older people may become more and more concerned with their immediate environmental context (Rowles, 1978), in particular, they tend to have a strong attachment to neighbourhood and locality (Scharf, Phillipson and Smith, 2003).

Thus, ageing well in cities has become a pressing issue globally, which also sparked the World Health Organization (WHO) to point out that "[p]opulation ageing and urbanization are two global trends that together comprise major forces shaping the 21st century" (WHO, 2007, p.1). It has proposed a series of guiding documents since the late 1990s to respond to this world issue. In 2002, WHO raised the concept of "active ageing" that focuses on the health, participation and security of older people (WHO, 2002), providing a global perspective from a variety of settings (Steels, 2015). Later, in 2007, WHO (2007) published the *Global Age-friendly Cities: A Guide* (hereafter called the *Guide*), which was intended to "engage cities to become more age-friendly so as to tap the potential that older people represent for humanity" (p.1). The *Guide* builds on the WHO's active ageing framework (WHO, 2007), and the so-called "age-friendly city" is "an inclusive and accessible urban environment that promotes active ageing" (WHO, 2009, p.1).

Since the *Guide* was published, 541 cities and communities in 37 countries have joined the WHO Global Network of Age-friendly Cities and Communities, covering 179 million people

worldwide.[2] These cities joined not only as a commitment to use the *Guide* as a starting point for action, but also as a learning network to share practice.

In this network, however, the participation of Chinese cities is quite limited: only Hong Kong and Qiqihar are member cities. Although Shanghai was one of the founder members of the *Guide*, it is no longer in the network. Thus, only three out of more than 660 cities of China have a closer connection with age-friendly cities, which indicates more practice and research are needed in the Chinese context to support this important international initiative.

1.2 Research aim, questions and methods

The overall aim of this thesis is to expound how cities and urban planning can support older urban Chinese to age well in their places. The so-called "place" in this thesis refers to the space beyond the front door, which ranges from public outdoor places, such as communities, parks and streets, to those in public buildings: for instance, shopping malls and railway stations.

Through reviewing the relevant literature, a series of gaps are identified, and based on this, four research questions are raised:

Research question 1: How do we understand active ageing in China through older people's use of outdoor space?

Research question 2: How age-friendly is the built environment in a developing Chinese city?

Research question 3: How do places support older people's social connections?

Research question 4: How can urban planning support older people to age well?

Based on the nature of these questions, this study will need to take into consideration multiple contexts, such as the socio-economic situation and planning system, and the need to collect data from various sources. Therefore, this research chose the case study as its basic form because this kind of investigation intensively investigates a contemporary phenomenon within its real-life context (Yin, 2003, p.13), and the researcher has greater flexibility when it comes to methods of collecting data (Karlsson, 2016). A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context (Yin, 2003), and it can be

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[2] See the details at WHO's official website: https://extranet.who.int/agefriendlyworld/who-network/

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also understood as an intensive study about a person, a group of people or a unit, from which it is aimed to draw general lessons over several units (Gustafsson, 2017).

The city of Anqing was selected as the case study area. Anqing is a tier 3 city, and as such can provide us with better opportunities to explore the average situation in China. In addition, the distinctive conditions of Anqing also provide the research with unique significance. In Anqing, three communities, i.e. Da-hu, Rong-sheng and Tai-ping-si, and five city centre spaces, such as park and square, were selected as case study sites.

To answer the research questions, qualitative methods are used to collect and analyse data. The reason for selecting qualitative methods is that they produce descriptions of social life (Yates, 2004), and attempt to broaden and/or deepen our understanding of how things came to be the way they are in our social world (Hancock *et al*., 2007). These methods include interviews, focus groups and observation. To collect older people's subjective assessments and points of view, 37 older people were interviewed, and five focus groups with 51 older people were carried out. In addition, stakeholders, including community leaders, urban planners and planning educators, were also interviewed. There were periods of observational investigation that helps us to better understand the needs of place users and how urban spaces are used (Gehl and Svarre, 2013); thus, non-participant and participant methods were undertaken to collect data about places, such as communities and city centre spaces, and older people's activities in these places.

1.3 Theoretical framework

The ultimate concern of this study is on older people's well-being in cities, with a special focus on the role of place in supporting active ageing. Existing literature indicates that theories of environmental gerontology provide insightful reflections on the relationship between place and active ageing: on one hand, place should meet older people's needs at different levels (Peace *et al*., 2007; Carp and Carp, 1984), and on the other hand, older people's competency can help them to change their environment proactively (Wahl and Oswald, 2010).

Furthermore, place includes physical environment and social environment, and both have influences on active ageing (Peace *et al*., 2007). Physical environment, for instance, urban outdoor space, could support older people's activities and socialization, and enhance people's

attachment to place. Social environment, including social experience and cultural significance, needs to be considered because it could influence active ageing as well as older people's physical settings.

Some researchers argue that individual trajectories and pathways to health and well-being should be given more attention (Friedman and Kern, 2014, p.719), because existing literature points out that personal background may influence later-life well-being (Myrskyla *et al*., 2014; Friedman and Kern, 2014). Thus, it is argued that overly ambitious concepts of active ageing may generate a form of "new ageism" that would cause discrimination against those older people who are disabled or dependent (Boudiny, 2013). In addition, because of the increasing number of the ageing urban population, governments need to make cities be more supportive to support older people's active ageing.

Based on the concept of active ageing, the WHO published the historical guideline document, the *Guide*, in 2007 for governments as well as other involved actors. The so-called "age-friendly city" is "an inclusive and accessible urban environment that promotes active ageing" (WHO, 2009, p.1). The *Guide* articulates eight topic areas and emphasises the urban context where older people live by discussing in detail how to implement the policy through optimising the urban built environment, which consists of housing, transportation, outdoor spaces and buildings.

The *Guide* takes into account the heterogeneity of older people and recognises that an age-friendly city's structures and services should be "accessible to and inclusive of older people with varying needs and capacities" (WHO, 2007, p.1). This consideration is also reflected in the process of producing the framework: the WHO employed a bottom-up participatory approach which involved focus group research with 1,485 older people, 250 caregivers and 515 service providers from 33 cities in 22 countries from across the world, which also included Shanghai, China. Moreover, the WHO's *Guide* explains different actions within the competence of cities to tailor their infrastructures and services to older people's needs (Garon *et al*., 2014, p.74), and has been influential in raising awareness about the impact of population ageing, particularly for the planning of urban environments (Buffel *et al*., 2012, p.598).

Based on these considerations above, a theoretical framework for this research can be developed (see Figure 1.1). The framework consists of two major parts: first, based on the environmental gerontology, the study reflects active ageing through taking into consideration

the process of person-environment interactions, with a special focus on the interactive links between place, including social and physical environments, and older people, including their needs and competency; second, drawing upon the concept and framework of age-friendly cities and communities, the study puts the reflection on active ageing into the urban context, including outdoor spaces, and transportation, with a special focus on the city centre spaces and communities.
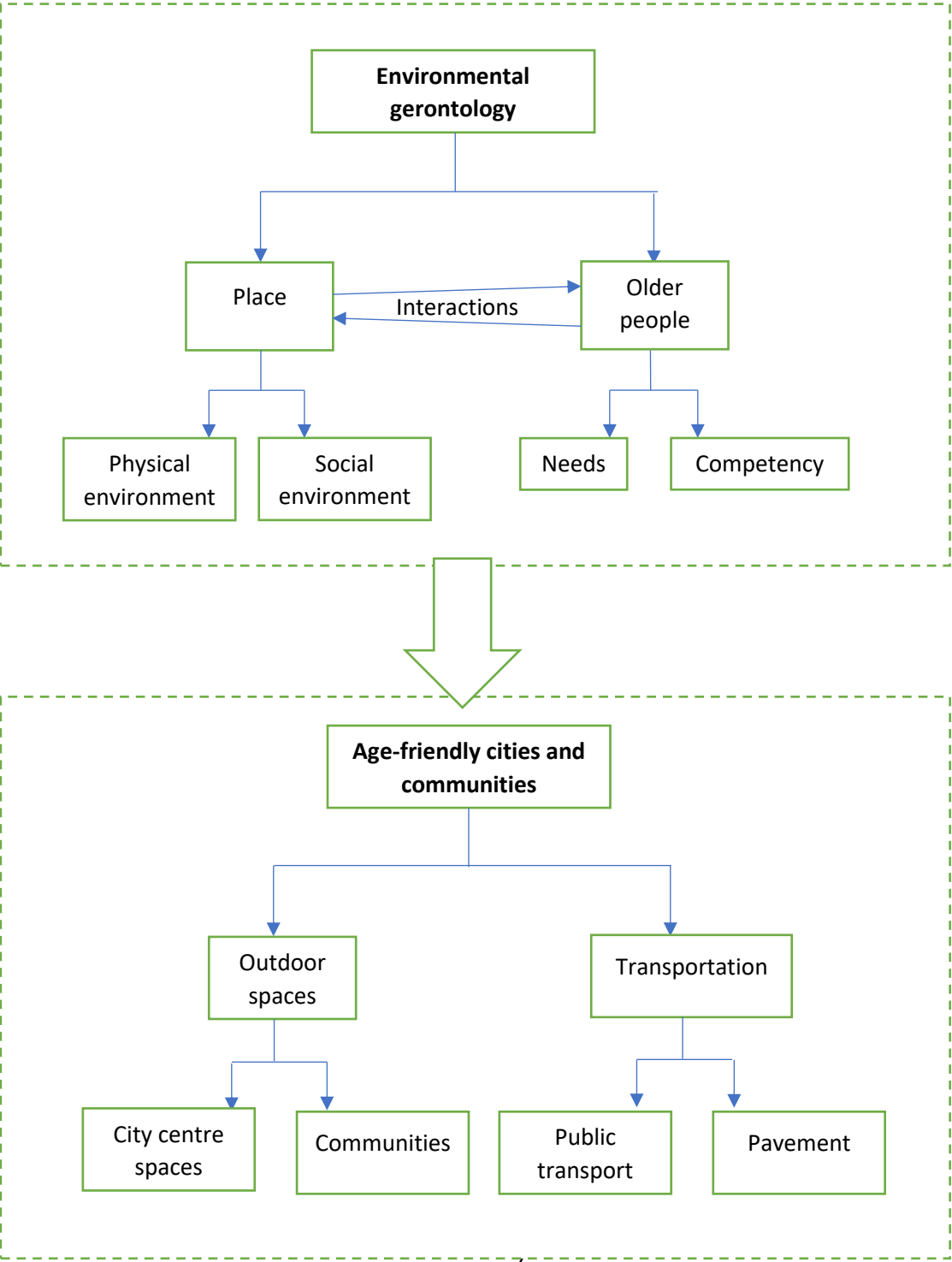
Figure 1.1 The theoretical framework

1.4 Structure of the thesis

After this introductory chapter, the thesis sets out in Chapter 2 to review the literature. This chapter includes four sections: the first section ("2.2 Active ageing and place") discusses the concept and critiques of active ageing, and its relationship with place; the second section ("2.3 The role of place in later life") explores the relationship between ageing and place, with a special focus on ageing in urban settings; the third section ("2.4 Age-friendly cities and communities") explores age-friendly cities and communities, aiming to look for practical pathways to supporting active ageing in such a changing and complex urban environment; and the fourth section ("2.5 Age-friendly initiative in Asia and its implementation in China") discusses the development and implementation of age-friendly cities and communities in Asian context, with a special focus on ageing-related issues in China.

Chapter 3 sets out the methods used to data collection and analysis. The chapter begins by proposing research questions that emerged from the literature review. After identifying the position, objectives and contribution of this research, the rest of the chapter explains how the field work and analysis were carried out: Firstly there is a rationale for a case study methodology and the selection of the particular case study communities; secondly the chapter expounds the methods used, including rationales for and processes of data collection and analysis. In addition, at the end of this chapter, there is a discussion of how ethical issues were treated as well as a reflection on the study as a whole.

Chapter 4 outlines the socio-economic development, history, culture and current changes in urban built environment and care services for older people. A brief introduction to the case study communities will also be presented, with a focus on the outdoor environment. In addition, a discussion on decision-making structure within the city and communities will explore the roles and power of different stakeholder groups.

The next three chapters present and analyse the fieldwork data. Drawing upon data collected from interviews, focus groups as well as observations, Chapter 5 presents older people's use of outdoor places both in urban public spaces and the three case study communities; Chapter 6 sets out the condition of various places in the city centre and the three case study communities, trying to deepen the understanding of age-friendly cities and communities in the context of a developing Chinese city; Chapter 7 discusses the role of planning in supporting active ageing, addressing three aspects: the political responses to the issues of population

ageing; planning professionals' opinions and advice on how to support older people through place-making; and the place of population ageing in current planning education.

Chapter 8 summarises the main findings, and re-addresses the research questions. More specifically, this chapter reflects on three major issues: the position of older people in modern developing cities, the role of culture and the socio-economic context in understanding the age-friendly city, and the role of place as social arena. How the research could be further developed and the limitations of the work are also discussed. Finally, the chapter discusses how the research findings might influence practice and what the limitations might be, and provides a version of the age-friendly cities checklist that can be readily applied to Chinese cities.

The final chapter, Chapter 9, provides concluding remarks by highlighting the contributions to the scholarship. In addition, based on the considerations of the work, future suggestions for research are proposed.

Chapter 2. Literature review

2.1 Introduction

This chapter aims to review relevant literature and explore active ageing in urban contexts. In order to achieve this aim, four sections will be presented: the first section (section 2.2) discusses the concept and critiques of active ageing, and its relationship with place; the second section (section 2.3) explores the relationship between ageing and place, with a special focus on ageing in urban settings; the third section (section 2.4) explores age-friendly cities and communities, aiming to look for practical pathways to supporting active ageing in such a changing and complex urban environment; and the fourth section (section 2.5) discusses the development and implementation of age-friendly cities and communities in Asian context, with a special focus on ageing-related issues in China. This section also presents a brief introduction to the China's planning, with a special focus on the country's planning system.

2.2 Active ageing and place

This section discusses the concept and critiques of active ageing, and its relationship with place. In particular, in the exploration of the role of place in supporting active ageing, the section introduces some theories of environmental gerontology, such as the Ecological Framework of Place and the person-environment fit model. At the end of this section, some critical reflections on environmental gerontology are presented, which also provides more insights into how should the study of interaction between active ageing and place be developed in the future.

2.2.1 *The concept of active ageing and its critical reflection*

The origin of "active ageing" can be traced back to the activity theory, which emerged around 1950s and 1960s. The concept of activity theory, as Lynott and Lynott (1996) point out, is best represented by two key works: *Personal Adjustment in Old Age* by Cavan *et al*. (1949), and *Older People* by Havighurst and Albrecht (1953). The basic argument of activity theory is that older people "should maintain the activities and attitudes of middle age as long as possible" (Havighurst, 1961, p.8). Moreover, after the activity theory, successive theories such as successful ageing (Havighurst, 1961; Rowe and Kahn, 1997), productive ageing (Walker, 2002) and healthy ageing (WHO, 2012) also influenced the development of the active ageing concept.

The concept of active ageing has been dominating the research and policies in relation to social ageing for decades, and a common effort of active ageing is to unmake the negative concept of old age (Lassen and Moreira, 2014, p.33). However, the concept of active ageing lacks universally agreed definition (Foster, 2018; Lassen and Moreira, 2014), because its definition "has evolved and continues to evolves within the context of a shifting political and social landscape" (Kalache, 2016, p.68-69).

In general, "active ageing" means older people's active involvement in not only physical activity, but also a wider range of events, such as social, economic, cultural and civic affairs (WHO, 2001; Walker, 2008; WHO, 2002). Nevertheless, the interpretation of active ageing differs across diverse domains of the society. It is argued that older people can remain active for longer not only to enhance their quality of life, but also for making contribution to the society positively, such as remaining in employment and contributing to family life, for instance, providing child caring (Hunter, 2011). In particular, in policy context, productive notions of "active ageing" highlight older people as an economic and social resource, and reduce barriers to older people's participation in society (Foster, 2018), thus, harnessing the talents of the older generation is at the heart of the concept of 'active ageing' (Hunter, 2011). However, the political perspective of active ageing tend to be focused on productive activities related to working life, voluntary work and physical training, excluding other meaningful activities for many older people, such as quiet home based leisure or craft (Jacobsen, 2017).

Active ageing has not been without its critics. Firstly, the "activity" needs to fall into particular categories so Minkler and Holstein (2008) reflect that older people are channelled into model behaviours. Timonen (2016) takes issues with the shift of responsibility from society and public bodies to private (individual and family responsibilities) such that older people must take responsibility, whatever their level of resource or health, for maintaining their income, their health and contribution to society. It can be argued that making own choices is a central characteristic of the so called "baby boomer cohort ", however, this labelling of generations is also channelled as lacking in an evidence base. In the current time of austerity policies imposed by a number of governments, "it is expedient for neo-liberal governments to promote individual responsibility" (Gilroy and Brooks, 2016,p.214).

In 2002, the WHO promoted a definition that that highlights the health, participation and security of older people (WHO, 2002). The OECD also produced a different framework for active ageing; however, the formation of this framework is mainly based on the consideration

of the developed world or other specific areas, while only the WHO's framework provides a global perspective from a variety of settings (Steels, 2015). The guideline developed by the WHO became the mainstream both in academic and other ageing-related areas alike shortly after its emergence, because as Walker (2008, p.84) points out, the document represents "the culmination of a long process of deliberation and discussion with inputs from a variety of scientific and policy perspectives". Furthermore, with the WHO's wide circulation of the concept of active ageing, people, and especially politicians, societies start to realise that "most of the older people in all countries continue to be a vital resource to their families and communities" (WHO, 2002, p.9). In other words, the appearance of active ageing has promoted the shift of the social construct of old age, which has historical significance and revolutionary implications, because in the past social policy had always tended to concentrate on the "burden of dependency" of old age (Phillipson and Walker, 1986, p.2).

The concept of active ageing has had an extensive influence. In the economy, as the active ageing framework, it has the potential to provide strategies for policymakers to address issues of pensions (Foster, 2018). A case study of Romania suggests that promoting active ageing in the informal labour market may be helpful in relieving older people from financial stress (Davidescu, 2015). Moreover, active ageing has a positive impact on life satisfaction (Marsillas *et al.*, 2017), in particular, older people's participation is independently and positively associated with their psychological well-being, even among those typically classified as "vulnerable" (Narushima, Liu and Diestelkamp, 2018).

Although the concept of "active ageing" by WHO has been receiving increasing attention across the world, there are still some concerns need to be addressed. According to WHO, the term "active" means "to continue participation in social, economic, cultural, spiritual and civic affairs… older people… who are ill or live with disabilities can remain active contributors to their families, peers, communities and nations" (WHO, 2002, p.12). However, Boudiny (2013) argues that many older people prefer to engage in "ordinary" activities, and what is worse is that overly ambitious concepts of active ageing may generate a form of "new ageism" that would cause discrimination against those older people who are disabled or dependent. It is also argued that a process of idealisation of active ageing might even become ultimately overbearing (Holstein and Minkler, 2007), which might create an ideological bias, ignoring the mental and physical realities of people's bodies, thus the frail and the oldest people will be excluded finally (Formosa and Higgs, 2015). For example, the decline in both mental and physical health and deprivation of functional capabilities among some

institutionalised older people might be viewed as a major barrier to active ageing (Fernández-Mayoralas *et al*., 2015, p.1031).

Moreover, it is argued that older people should become centrally involved in the construction of the policy (Phillipson and Walker, 1986), and WHO also states that the active ageing approach is based on the "recognition of the human rights of older people" (WHO, 2002, p.13). Nevertheless, the process of forming the document seems to be lacking older people's involvement; instead, official organisations and experts have more influence in shaping the concept.

2.2.2 *Environments that support active ageing: An exploration on environmental gerontology*

Empirical research provides a wide range of measures on how to help older people to keep active ageing, such as a walkable neighbourhood environment (Marquet and Miralles-Guasch, 2015), electric bicycles (Cauwenberg *et al*., 2018) and comfortable sportswear designed for older people to engage in healthy exercise (McCann, 2016). Generally speaking, active ageing depends on a variety of determinants that surround individuals, families, communities and nations, including personal factors, physical, social and economic environments (Kalache, 2016).

However, active ageing can be promoted or constrained by the urban built environment. Volume of traffic, air pollution, fear of being jostled, fears over street crime may all deter older people from making the most of the life of the city. Although the content of the framework of active ageing does discuss some aspects such as "accessible and affordable public transportation", "safe housing", "location including proximity to family members, services and transportation" and "building codes" (WHO, 2002, p.16), the framework provides us with limited guidance on how to achieve active ageing among older citizens in material urban settings, in particular, communities. More research is needed on how the configuration of urban space might support different aspects of active ageing such as community engagement, for it is argued that active ageing initiatives need to be focussed on getting older people involved in the community and interacting with each other (Hunter, 2011).

Therefore, discussion on the links between active ageing and environments is necessary, because it is important to consider ageing in the environment rather than decontextualizing the ageing individual (Wahl, Iwarsson and Oswald, 2012, p.313), for human life span is sensitive to environmental input and person-environment interactions (Wahl, 2015). The discussion is also related to the major concern of environmental gerontology, which is a loose confederation of subjects that focuses on the behavioral and psychological impacts of environment on older people (Scheidt and Windley, 2006). In essence, environmental gerontology emphasizes the "understanding of person-environment relations as people age" (Peace *et al*., 2007, p.210).

At its earlier stage, this discipline used to be focused on social environments, nonetheless, to date it has given much attention to physical and spatial component of the setting for ageing (Peace *et al*., 2007), and reflecting on the environment with a focus on the physical-spatial dimension has become one of major cornerstones of environmental perspectives on ageing (Wahl, 2015). Hence, as Lawton (1983) argues in environmental gerontology the "objective environment" can include intangible aspects such as economic indicators, and tangible facets like immediate living space, and the relationships between physical, social, psychological and cultural environments (Peace *et al*., 2007).

The development of social sciences in gerontology in the second half of the twentieth century, especially the emergence of environmental psychology, puts the development of research on ecological aspects of ageing forward (Peace *et al*., 2007). Currently, there are several ecological perspectives that contribute to the understanding of complex person-environment relations in ageing process. On the one hand, such as the Ecological Theory of Ageing (ETA) and the Press-competency model (p-c model), recognize the role of older people in pursuing active life in their environments. In particular, the influence of older people's competency or agency on active ageing has been highlighted during the person-environment interactions. On the other hand, from the perspective of the person-environment fit (p-e fit), older people's needs should be given sufficient attention and the environment is required to become more helpful in supporting active ageing from them.

2.2.3 *Older people's agency in the person-environment interactions*

The Ecological Theory of Ageing (ETA) is a classic view in interpreting the link between physical environment and older people (Lawton and Nahemow, 1973). The ETA integrates

personal competency with objective environment, and special combinations of them would determine optimal level of functioning (Wahl, Iwarsson and Oswald, 2012). There are two key processes of person-environment interaction in later life, i.e., person-environment belonging (p-e belonging) and person-environment agency (p-e agency). The p-e belonging is developed through older people's environment-related experiences, including cognitive and emotional evaluation of physical environments, while the p-e agency indicates older people's goal-directed behaviors related to environment (Wahl and Oswald, 2010; Wahl, Iwarsson and Oswald, 2012).

According to the ETA, people's capacity to adapt to environmental press decreases as they age, for example, the theory predicts an increase in the processes of belonging but a decrease in the processes of agency as people age (Wahl, Iwarsson and Oswald, 2012). However, it was criticized for portraying older people as too passive (Wahl, 2015), thus, the theory was later developed to also recognize older people's ability and effort to change their environment based on their needs and well-being (Wahl and Oswald, 2010). Moreover, although the ETA has gained much empirical support, most related studies are cross-sectional, lacking causal interpretation (Wahl, 2015). Furthermore, investigation into the p-e belonging and agency needs to consider historical, cohort-related, and cultural context, because as Wahl, Iwarsson and Oswald (2012, p.310) contend that, in the future, "older people will not only use robot care to support and compensate for lost competencies (agency) but may also feel emotionally attached to their robotic animal or enjoy virtual reality, new means of experiencing environmental richness in the context of pronounced disability (belonging)".

Compared with the ETA, the press-competence model puts more emphasis on older people's active role in the person-environment interactions. The press-competence model was proposed by Lawton and Nahemow (1973) and has served as the general ecological model in gerontology (Scheidt and Norris-Baker, 2004). This model points out that environmental demands or contexts (press) will cause older people's behavioural response, but the environmental impacts will be mediated by individual's physical and psychological performance (competence). In other words, older individuals could be able to resist the negative influences of their environments through positive behaviours or cognitions, or alternatively, they would become more subject to environmental impacts due to their less positive response.

2.2.4 *The role of place in active ageing*

Place plays a critical role in supporting active ageing. The Ecological Framework of Place (EFP) views place as a socio-physical environment involving people, the physical setting, and the function of the place, arguing that all of these factors are catalyzed by human activity and could change over time, and this concept highlights place's role in supporting older people's agency, identity and sense of self over the life course (Moore, 2014).

Compared with the ETA and the PC model, the person-environment fit (p-e fit) model stresses person's needs rather than competence, and assumes that it is the mismatch between personal needs and environmental options that decreases behavioural functioning and well-being (Peace *et al.*, 2007, p.213). It is argued that the person's needs include basic and higher-order needs; mismatch in basic needs and higher-order needs realms would cause reduced behavioural autonomy and decreased psychological well-being respectively (Carp and Carp, 1984).

Meshing with the principle of active ageing that stresses empowering older people benefits well (Hunter, 2011), the concept of person-environment fit also highlights older people's subjective assessment of the quality of place. For instance, the multi-level person–environment model allows individuals to rate the degree that environmental realms are able to meet their needs and to prioritise these in respect of importance for quality of life (Cvitkovich and Wister, 2002). In other words, the p-e fit of a specific place varies from one older person to another, because as Rubinstein and de Medeiros (2004, p. 64) argue that "P-E fit can be altered by the elder's consciousness of the life world, by how the older person experiences the self, by how the person individually interprets cultural meaning, and the importance of place in later life".

Oswald *et al.* (2005) apply the person-environment fit model to the relationship between housing needs and conditions of older people in different urban neighbourhoods. It has been identified that type of neighbourhood correlated with p–e fit in the expected direction: i.e., a higher degree of p-e fit was more often observed in more desirable city districts, particularly in the neighbourhoods where issues related to higher-order needs such as privacy, comfort, familiarity, and access to favoured activities could be addressed properly.

The p-e fit is particularly important for realising independent living in community (Wahl and Oswald, 2010), because the p-e fit could become more powerful in addressing higher-order

needs that reflect more subjective, development-oriented domains (Carp and Carp, 1984), especially in promoting more complex activities (Wahl *et al*, 1999; Wahl and Oswald, 2010) such as community interaction; however, the p-e fit of community might not impact more on basic needs of everyday life (Wahl and Oswald, 2010; Wahl *et al*, 1999), which is featured with necessary activities of daily living for maintaining personal autonomy (Oswald *et al*., 2005; Wahl and Oswald, 2010; Carp and Carp, 1984), such as cooking, bathing and shopping. Furthermore, according to the Person-environment-activity (PEA) model one of the most important factors of environment that enables older people to achieve these activities is "accessibility", which could be perceived as person-environment fit (Scheidt and Windley, 2006).

2.2.5 *Critical reflection on environmental gerontology*

The development of environmental gerontology is "driven by an ongoing interchange between individuals and their social and physical environment" (Wahl and Oswald, 2010,p.113). Peace *et al*. (2007) point out that environmental gerontology needs to be further developed for a better understanding of the relationship between the physical and the social environments, as well as better integration of ongoing cohort dynamics.

The social environment is changing continuously. Wahl, Iwarsson and Oswald (2012, p.314) argue that "the issue of environment underscores the urgent need to learn (and educate ourselves) about new competencies, such as highly skilled residential decision making or sophisticated technology use that will be increasingly necessary for aging well in the future", such as social interaction via Internet (Wahl, 2015). In addition, it is argued that the traditional view of "ageing in place" has been challenged because of increasing number of older people who are moving to new places (Wahl and Oswald, 2010).

Therefore, with changes in older people's competence, more attention should be given to the positive and influential role of older person in p-e relationships. "Intervention research has become a major feature of environmental gerontology, particularly with the aim of reducing disability and loss of autonomy as people age", but it should also have a positive implication for older people's quality of life (Wahl and Oswald, 2010, p.120). Four elements in environmental gerontology, including objective environment, behavioural competence, psychological well-being and perceived quality of life, constitute the "good life", and these

domains can be measured, but the ultimate meaning of each of them should depend on older people's own evaluation (Lawton, 1983, p.349).

In the meantime, more research is needed to reflect the influence of changes in social environment on older people's physical settings. Much recent environmental research focuses on home environment but neighbourhood environment is receiving increased attention as well (Scheidt and Windley, 2006, p.106). One of the primary aims of environmental gerontology is to optimize the relationship between the ageing person and his or her physical-social environment, which means improving place for ageing, for instance, designing "age-friendly" environments (Wahl, 2015). Furthermore, the ecology of ageing entails not only older person's adaption to environment but also his or her alternation of it (Lawton and Nahemow, 1973).

The term "physical-social environment" indicates that the physical and social worlds that we inhabit are intertwined and inter-dependent and reminds researchers that social experience, cultural significance and historical reassessment also need to be considered (Wahl and Oswald, 2010). The influence of culture has been highlighted in works of many influential researchers (for example, Peace *et al*., 2007; Rubinstein and de Medeiros, 2004; Wahl, Iwarsson and Oswald, 2012).

This section has discussed the links between active ageing and place, with a special focus on related theories of environmental gerontology. According to the concept of active ageing, the ageing population is a great social and economic resource, and older people should and can keep a more participation in activities to enhance their well-being in later life. Apparently, environment has significant influences on delivering active ageing, thus, the review in environmental gerontology helps us better understand the relationship between older people and their environments. In environmental gerontology, theories such as the Ecological Theory of Ageing (ETA) and the press-competence model explores older people's agency in addressing environmental challenges. However, other concerns of environmental gerontology, including the Ecological Framework of Place (EFP) and the person-environment fit (p-e fit) model highlight place's role, arguing that social and physical environments should address older people's needs at different levels.

To explore more on older people's environmental needs, it is necessary to think of the relationship between ageing and place. Given this study's focus is set on urban area, then the

relationship needs to be discussed in urban context as well. The next section will address these two concerns.

2.3 The role of place in later life

In order to deepen the understanding of older people's environmental needs, this section explores the relationship between ageing and place, with a special focus on ageing in urban settings. Place attachment is introduced to describe people's physical and psychological links to their places as they age, from which older people's well-being and needs in relation to place will be unpacked. The discussion on these domains might become more complex in urban context because continuous changes in the urban environments would cast more challenges on older people's lives, hence, issues related to ageing in urban settings are also presented.

2.3.1 *The relationship between ageing and place: Older people's place attachment*

The relationship between people and place is complex and can be defined as "place attachment", which indicates there is a link or an affective bond between specific places and people (Hidalgo and Hernandez, 2001). The affective link can refer to an emotional or psychological attachment (Livingston *et al*., 2010; Scannell and Gifford, 2010), and a functional or physical attachment (Livingston *et al*., 2010; Rowles, 1983).

It is argued that people "have different access to and experiences of places on the grounds of their age, and spaces associated with certain age groups influence who uses them and how" (Hopkins and Pain, 2007, p.288), and "people in advanced age hold strong feelings of attachment to place" (Wiles, *et al*., 2017, p.27). Older people's attachment to place is closely related to their behavior, which, as Smith (2009) argues, is influenced by functional needs and affective requirements, for instance, sense of security. Thus, place, with its physical and social realms, has significant implications for older people's physical and psychological well-being (Cheng *et al*., 2011), for example, for older people who are experiencing psychological difficulties, place plays a critical role in the mitigation and development of stressors (Cutchin, 2005), and there is also a positive relationship between place attachment and health in old age (Wiles *et al*., 2017; Norstrand and Chan, 2014).

Place attachment is subject to people's mobility (Rowles, 1983). Mobility may be playing an important role in shaping place attachment of people of different groups. Mobility enriches people's geographical experience, but a lot of older people may become less mobile, and in the meantime, more concerned with immediate environmental context, and rely more upon local resources because of physiological deterioration, potential economic hardship and negative influences of fast societal change (Rowles, 1978). Nevertheless, in the study of rural Colton, Rowles (1983) discovers the difference between the old-old and the young-old regarding place attachment, and argues that for the old-old, place attachment is often grounded in lifelong familiarity with a single physical setting, but for the young-old it involves a series of geographically dispersed locations because of their increasing mobility, which indicates that the "affinity for the proximate physical setting may be less intense for the young-old" (p.300).

People's attachment to place will vary throughout a whole lifetime (Røe, 2014) and may be influenced by individual past experience (Morgan, 2010). Smith (2009) contends that time (including past, present and future lives), 'intervening variables' such as religion, and the lifecourse should be considered in the person–environment relationship. For older people, the relationship between them and their places can be viewed as "geographical experience" (Relph, 1976; Rowles, 1978). According to Relph (1976), the "experience" is the "direct experiences and consciousness we have of the world we live in", and the "foundations of geographical knowledge" (p.4), while Rowles (1978) argues that the "experience" is "defined as the individual's involvement within the spaces and places of his life" (p.14).

The meaning of place attachment is both individualistic and highly dynamic (Rowles, 1983; Rowles, 2008; Morgan, 2010). Rowles (2008, p.130) articulates a life-course perspective by stating that the trajectory of human life is shaped by people's location in time and space, and in each new setting, the tendency is to transition from being "out of place" to eventually being "in place", through actions in using spaces, in re-orientation to the new setting, and in proactively discovering and creating the meanings of place. Thus, it is important for older people to play an active part "in creating places and imbuing them with meaning" (Rowles, 1983, p.310) to pursue the meaning of "being in place" proactively in later life (Rowles, 1983, 2008).

Reflecting on the relationship between older people and place, Rowles (1983) employs the concept of "insideness" in defining place attachment as "a multidimensional phenomenon

involving physical, social and psychological components" (p.310), which refer to "physical insideness", which is "an intimate familiarity with the physical configuration of the environment through habitual use" (Buffel *et al*., 2014a, p.802), "social insideness", which is obtained from "integration in the social fabric of the community and neighbourly support" (Buffel *et al*., 2014a, p.802), and "autobiographical insideness", which refers to "lifelong accumulation of experiences" in a place providing a sense of identity (Buffel *et al*., 2014a, p.802). In other words, older people will experience a sense of autonomy, control over their everyday lives, increased self-confidence and social integration by building up an affective connection with their living environment (Smith, 2009).

In the meantime, place should provide a "barrier free" environment in which older people can maintain social networks through social participation (Rowles, 1978), and provide older people with support for active ageing, enabling self-care and self-management and facilitating social inclusion (Woolrych, 2016). Although the social and physical environments often prevent people from pursuing the meaning of "being in place" (Rowles, 2008), a reasonably-designed and well-managed built environment, especially at the community level, can be an enabler to the social connectedness of older adults (Ahn *et al*., 2019), for instance, Rowles (1978) suggests tangible interventions in improving the physical arena and investment in communication, for instance, internet to allow more housebound older people to remain connected. These changes would raise feelings of value and inclusion among older people.

2.3.2 *Ageing in urban environment*

In the urban environment, neighbourhood is argued to be of special importance to older people's well-being. The quality of the neighbourhood environment is associated with mental well-being (Bond *et al*., 2012; Jones-Rounds *et al.*, 2014) – for instance, loneliness (Scharf and de Jong Gierveld, 2008) – and it is also argued that neighbourhoods of better physical quality could attenuate the adverse impacts of poor housing quality (Jones-Rounds *et al*., 2014; Das *et al.*, 2017), while challenging environments can affect older people's ability to live a quality life (Smith, 2009).

Scharf, Phillipson and Smith (2003) point out that older people tend to have strong attachment to neighbourhood and locality, and Smith (2009) identifies that older people's attachment to neighbourhood could mitigate negative consequences of environmental press on their well-

being. In addition, community attachment and belonging are also critical indicators of social exclusion among older people in neighbourhoods (Phillipson, 2007). Buffel *et al.* (2014a) investigate place attachment amongst older people of four communities in Flanders, Belgium, to identify the factors of the physical-spatial environment in the process of impacting place attachment of older people. The findings suggest physical environmental factors, such as diversity in population and use, and pedestrian-friendly street design, could be critical in enhancing older people's attachment to neighbourhood.

Older people are also highly sensitive to the changes around them (Scharf, Phillipson and Smith, 2003). However, in a fast-developing society, especially in cities, the places of ageing are highly dynamic. Urban environments are being transformed by globalization with changes in social, cultural and economic spheres, leading in some cases to displacement of older people (Phillipson, 2007). These issues could be reflected in investment decisions in cities, which would affect older people in different ways. For instance, in an affluent neighbourhood of Newcastle, UK, older people in care settings were displaced by those from whom housing developers could make profits (Gilroy, 2008), while disinvestment in already disadvantaged neighbourhoods may lead to those who cannot move elsewhere, having reduced QoL (Scharf *et al.*, 2002).

Moreover, such incursions cause displacement of familiar everyday amenities. Older people who continue to stay thus lose the chance of exchanging pleasantries with shopkeepers and neighbours, but the daily life experiences may be key to individuals' attachment to the local settings (Dines *et al.*, 2006; Holland *et al.*, 2007). A familiar neighbourhood environment is important not only for well-being, but also for more practical benefit, especially for those living with dementia; thus, the retention of familiar buildings and a variety of street frontages provide beneficial landmarks, which may be a spatial preference of older people who want to "age in a place that they know themselves, and in which they are known by others" (Gilroy, 2008, p.147). Even in some new unfamiliar places, older people can still become familiar with them through some "specific features of places which mesh with the accumulated experience, and cognitive abilities, of older people" (Spaul and Hockey, 2011, p.238).

As a consequence, a huge gap has been identified in quality of living environment between different neighbourhoods. Wu *et al.* (2014) find that British older people live in a wide variety of environments, influencing health and well-being. More specifically, compared with their counterparts in rural areas, communities in urban conurbations tend to have "shorter distance

to services, high heterogeneity of land use, and low proportion of green space with a worse quality of street-level conditions" (Wu *et al.*, 2014, p.89). Furthermore, the process of displacement has produced new social divisions, in particular, a significant variation in community attachment: there is an inequality between older people who are able to decide where and whom to live with and those who feel marginalized by changes in their neighbourhoods (Phillipson, 2007).

Living in socially deprived urban areas can have significant impacts on older people's well-being (Scharf, Phillipson and Smith, 2003), but deprived communities may also have resources, which consists of close family ties, neighbours, transport networks as well as services (Scharf *et al.*, 2002, 2003). Although older people can move into other neighbourhoods with better facilities, they may have to face loss of place attachment as well as long-established social connections (Wu *et al.*, 2014).

A study of Hong Kong shows that there is a gap between old urban areas and new towns: older people in old urban areas tend to require more diverse range of needs in their psychological well-being, while their counterparts in new towns often focus on more specific dwelling needs (Phillips *et al.*, 2010). Phillips *et al.* (2010) propose a possible explanation for this: having established community network, older people in old urban areas might be less adjusted to environmental change and therefore seek different aspects of environment to counteract the negative influence caused by environmental changes; by contrast, partly because of the lack of adaptive resources such as community network and family support, older people in new towns are more prepared to accept the environmental changes, and tend to focus on a narrower and more specific range of environmental needs.

In a socially disadvantaged community, as Boneham and Sixsmith (2006) revealed, older women can still contribute to the community health matters as well as keep and develop social capital. The social construction of caring strengthens older women's responsibility for their own and other people's health, and also gives them confidence in dealing health matters in their communities as lay experts. Through this lay expert practice in the community, older women could further develop social capital, which helps to reduce the negative influence on them cast by loneliness and isolation. Older women's role and engagement in health matters can shape the development of healthy communities (Boneham and Sixsmith, 2006). In short, place attachment, personal competence and agency could help older people to overcome difficulties and live better in deprived communities (Smith, 2009).

This section discussed the relationship of ageing with, in particular urban, places. The physical and psychological links between people and place could be viewed as place attachment, which could be subject to a series of factors, such as mobility, and might vary throughout a whole lifetime. Generally speaking, people tend to have stronger place attachment when they age, therefore, in order to support older people in pursuing the meaning of "being in place", place should provide an environment in which older people can maintain social networks through social participation, and self-manage their places, and control over their lives. In urban context, older people tend to have strong attachment to neighbourhood and locality, and the neighbourhood environment could play a critical role in determining older residents' well-being. Nevertheless, older people in cities, especially fast-developing ones, have to face a series of challenges, mainly due to changes in urban places. These issues include displacement of marginalized ageing population and inequality in quality of living environment among different communities. In particular, living in unfamiliar and socially deprived environment would significantly lower older people's well-being because of lacking social networks locally.

To address these diverse needs and complex issues in relation to ageing in urban environment, the research needs a further investigation into how to make urban setting become supportive of active ageing for older people of different personal characteristics. Hence, the next section focuses on the concept, study and practice of age-friendly cities and communities, trying to look for a practical pathway towards supporting active ageing in urban places.

2.4 Age-friendly cities and communities

To address older people's different needs and a series of issues in relation to ageing in urban places, this section explores age-friendly cities and communities, aiming to look for practical pathways to supporting active ageing in such a changing and complex urban environment. In this part, the thesis will discuss age-friendly cities and communities by introducing its emergence, related research and the WHO's age-friendly initiatives. The roles of government and older people in the process of developing age-friendly environments will be discussed as well, followed by a critical reflection on the age-friendly initiatives.

2.4.1 *The emergence of age-friendly cities and communities*

Three factors drive the rise of age-friendly cities: include population ageing, the global policy goal of supporting "ageing in place", and the impact of urban change (Buffel and Phillipson, 2016).

Taking the economic aspect first, one of the significant benefits of developing age-friendly cities is that it may promote active ageing, through which health and life expectancy may be improved, thereby reducing pressure on services (Fitzgerald and Caro, 2014). Therefore, the development of age-friendly cities is considered as a way for governments to reduce the pressure of older citizens on the Welfare State (Garon *et al*., 2016). Furthermore, the cost to implement age-friendly transformation could be very low, but the outcomes would be an increase both in social and economic revenue in the community (Fitzgerald and Caro, 2014).

Thus, older people are a resource for their families, communities, and city economies, but in order to capitalise on the older people's potential, cities should ensure older residents' full access to urban spaces, services and structures (Plouffe and Kalache, 2010, p.734). Among these urban spatial elements, communities act a critical role in supporting older residents to age well. Community is a special and important spatial element of the urban environment, and there is a strong age-friendliness link between community and city. A case study of thirty older people of four communities in Manitoba, Canada suggests that a comprehension of age-friendly neighbourhoods need to consider regional characteristics and diversities; in other words, contextual elements may have implications for the characteristics, experience and recognition, and the findings highlight the influence of neighbourhood location, size, and its proximity to city centres on other age-friendly characteristics, particularly healthcare and support services (Novek and Menec, 2014).

Hence, the past decade also saw an extensive attention to the initiatives to develop age-friendly communities by a number of institutions, such as the WHO, American Society on Ageing and American Planning Association, which shows a growing recognition of the role of physical and social environments in supporting older people to age well (Scharlach. 2017).

2.4.2 Research on age-friendly cities and communities

An age-friendly city or community provides supportive physical and social environments (Steels, 2015; Fitzgerald and Caro, 2014), enabling residents to and to continue living in their homes and participating in urban and community life (Fitzgerald and Caro, 2014).

The spatial domain of a city, including landscape, buildings and transportation system, contributes to older people's "confident mobility, healthy behaviors, social participation, and self-determination" (Plouffe and Kalache, 2010, p.737). Physical availability in environment, such as seating areas and safer pedestrian crossings, makes communities more accessible, which could also contribute to prevent social isolation in ageing populations (Buffel, Handler and Phillipson, 2018). This issue has been addressed in the WHO's age-friendly framework (WHO, 2007; Buffel, Handler and Phillipson, 2018).

A study on frail older people in Brussels highlights the social aspects of community and finds that even in disadvantaged neighbourhood opportunities for supporting ageing in place can still be created by offering older residents a platform to meet and know each other (Smetcoren *et al.*, 2018). Thus, this finding also highlights a truth that is often ignored that even deprived communities could have social resources, which consists of close family ties, neighbours, as well as services (Scharf *et al.*, 2002, 2003). Moreover, empirical research finding shows that social connectedness has been identified as an important factor in creating and maintaining age-friendly communities, and stakeholders, including urban governmental officials, policy makers and researchers, need to cooperate to help older people to integrate well into community life (Emlet and Moceri, 2012; Steels, 2015).

The discussion on age-friendly communities has become a focus in social policy, and the "future of communities across the world will in large part be determined by the response made to achieving a higher quality of life for their older citizens", in particular, the response needs to create "supportive environments providing access to a range of facilities and services" (Phillipson, 2011,p.289-290), and policies for older people needs to be integrated into urban development and management (Buffel *et al.*, 2014b). Moreover, the access to community intergenerational interaction is important to older people's well-being as well (Hopkins and Pain, 2007). It is argued that the future community planning and development need to shift its focus from supporting young families to "the creation of inclusive and socially vibrant communities that provide access to resources, foster opportunities for older

people to pass their experiences and talents onto younger generations, and live a full life regardless of age or other circumstances" (Lewis and Groh, 2016, p.97).

The dynamic interplay between different domains of living environment highlights the need to focus on not only the individual but also social organizations and the policy landscape (Buffel, Handler and Phillipson, 2018). Global work towards age-friendly cities and communities, for example, the WHO's Global Network of Age-Friendly Cities and Communities, has enhanced the support for interdisciplinary co-operation, which brings together researchers from related fields, such as urban planning and design, architecture and sociology (White and Hammond, 2018). Despite this, a closer integration in disciplines, such as urban economics and human geography, is still needed (Phillipson, 2011).

The focus on how urban changes impact on older people's well-being is gaining increasing attention. Phillipson (2011) contends that, researchers need to develop new approaches, for instance, urban ethnography and longitudinal studies. An age-friendly community should be able to support an individual in an ongoing and dynamic process of individual adaption to environments throughout his or her lifelong course (Scharlach, 2017). Furthermore, age-friendly action plans need to make urban and neighbourhood changes beneficial to both current and successive cohorts of older people (Buffel and Phillipson, 2016).

The concept of age-friendly communities could be used as way of investigating macro-, meso- and micro-levels of environmental change that affect older people, and in particular, researchers need more reflection on "changes associated with globalization, and its consequences for urban environments", which is a fundamental factor shaping the development of age-friendly communities (Phillipson, 2011,p.283). Based on reflections on the challenges to the development of age-friendly cities and communities by dynamic urban settings, Buffel and Phillipson (2016) argue that research and policies on age-friendly cities need to develop a stronger link with a consideration of the impact of global forces; the impact of economic austerity; pressures related to urban development (for example, the negative influence of gentrification in neighbourhoods) and the exclusion and inclusion created by the privatisation of public space. Global changes, especially those caused by migration and gentrification, have intensified inequality and diversity among ageing population and their communities (Buffel, Handler and Phillipson, 2018).

The research on age-friendly communities should address communities both in urban and rural environments (Phillipson, 2011). Liddle *et al*. (2014) narrow focus on a purpose-built

retirement community in rural England proposes a new and more generalised definition of age-friendly community, which highlights participation and empowerment of older people, as well as "a strategic and ongoing process to facilitate active ageing by optimising the community's physical and social environments and its supporting infrastructure" (p.1606). Thus, against this definition, Liddle *et al.* (2014, p.1625) argue that age-segregated environments need to ensure the capacity to support ageing in place, accessibility of activities and amenities, opportunities for intergenerational interactions and training of community service staff.

In general, developing an age-friendly environment requires both preconditions, including population density, topographical features, social and civic organization, as well as health and social services, core features, which consist of housing, mobility, outdoor spaces and buildings, participation of older people, and secondary features, for instance, age-friendly businesses (Fitzgerald and Caro, 2014). Nonetheless, as Phillipson (2011) points out that, there are three major gaps that need to be addressed in the future, i.e., a closer integration of disciplines, new approaches for exploring older people's relationship to urban change, and building a stronger and mutual link between the age-friendly features and urban development.

2.4.3 *The WHO's age-friendly initiatives*

In 2007 WHO (2007) published an official document, *Global Age-friendly Cities: A Guide*. The theoretical basis that underlines the framework is active ageing, and the "age-friendly city" is "an inclusive and accessible urban environment that promotes active ageing" (WHO, 2009, p.1). Firstly, as Figure 2.1 shows, the guide sets out eight topic areas which city actors may use to develop an agenda for action.

Figure 2.1 Age-friendly City topic areas

(Source: WHO, 2007)

Secondly, the guide recognises that "older people are not a homogeneous group and that individual diversity increases with age" (WHO, 2007, p.6); therefore, an age-friendly city's structures and services should be "accessible to and inclusive of older people with varying needs and capacities" (WHO, 2007, p.1).

Finally, in terms of the formation of the document, the WHO employed a bottom-up participatory approach that involved focus group research with 1,485 older people, 250 caregivers and 515 service providers from 33 cities in 22 counties, which also included Shanghai, China, because "older people are the ultimate experts in their own lives" (WHO, 2007, p7), and the purpose of the guide is to "engage cities to become more age-friendly so as to tap the potential that older people represent for humanity" (WHO, 2007, p1).

The age-friendly community movement is the starting point for age-friendly cities (WHO, 2007) and also indicates efforts of developing supportive communities for urban older people (Buffel, Phillipson and Scharf, 2012). The age-friendly community is a reworking of "ageing in place", which means being able to remain at home and in the known neighbourhood while ageing (Buffel, Phillipson and Scharf, 2012; Woolrych *et al.*, 2018); meanwhile it also resonates with the strong attachments of older people to home and community (Menec *et al.*, 2011).

Based on the framework, in 2010 the WHO launched the "Global Network of Age-friendly Cities".[3] According to the WHO, the aim of the network is to facilitate the exchange of

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[3] See the network at http://www.who.int/ageing/projects/age_friendly_cities_network/en/

experience and mutual learning of constructing age-friendly environments between cities and communities worldwide. When facing widespread demographic change, more and more cities are actively responding to the call of WHO and, as a consequence, as of March 2018, 541 cities and communities have joined, covering 179 million people in 37 countries. For example, 12 major cities across the UK, including London and Newcastle, have joined the WHO network, aiming to improve the QoL for older people through shared learning and peer support.[4]

2.4.4 *The role of governments in the age-friendly initiatives*

The government should play a leading role in creating platforms and environments, within which the public and NGOs can work together and provide advices to the government (Chan, Lou and Ko, 2016). Buffel *et al.* (2014b) have pointed out the critical role of local authorities; moreover, the importance of collaborative partnership is also identified explicitly in two case studies in Quebec, Canada, and the research finds that upstream leadership (i.e. the steering committee in this case) is essential in harmonizing efforts and promoting collaborative partnership among stakeholders (Garon *et al.*, 2014). In addition, government-led organizations, for instance, the Seniors' Secretariat in Canada, can be able to play a positive role in ensuring consecutive achievable research on age-friendly cities, and creating friendly environment for stakeholders to learn from each other (Garon *et al.*, 2016).

In the AFCC model, in addition to the scientific exploration on what age-friendly cities and communities are, the aspect of politics should not be ignored because of its influential role in making the idea into practice (Moulaert and Garon, 2016). The practice in Manchester has been facing a tough context; for example, the city's older population has shrunk due to cohort migration linked to economic decline, and high levels of disability and ill health, and the city has the second lowest male life expectancy in England (McGarry and Morris, 2011). Nonetheless, Manchester has developed a series of actions in order to address these ageing-related issues, which include the Valuing Older People (VOP) programme in 2003 to bring together different social groups to promote good QoL in later life, joining the WHO Global

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[4] See the overview of the UK network at http://www.agenda-efa.org.uk/site/2013/04/uks-12-age-friendly-cities-go-global/

Network of Age-Friendly Cities, and the Manchester Ageing Strategy (MAS) published in 2009 as a local guideline of WHO's policy framework.

Steels (2015) points out that for addressing ageing issues in urban environment, "it is important that policy makers create supportive and enabling environments through interventions for their older population" (p.50). The age-friendly cities framework needs different departments of government to implement policies that aims to achieve diverse themes of the initiatives (Chan, Lou and Ko, 2016). The implementation of active ageing needs a holistic approach but bureaucratic is a barrier globally because even in state socialist China "responsibilities are divided between ministries and departments" (Walker, 2016, p.57).

2.4.5 *The position of older people in the age-friendly framework*

The Age-friendly Cities and Communities model prioritises the role of older people in the work of developing age-friendliness of their living environments (Buffel, Handler and Phillipson, 2018). Manchester was among the first to be admitted into the WHO 'Global Network of Age-friendly Cities' in 2010 (Buffel, Handler and Phillipson, 2018), and lessons from both Manchester and Brussels highlight the importance of involving older people as critical actors in shaping action plans for developing age-friendly environment (Buffel *et al*., 2014b). Through participatory methodologies, Manchester's work of age-friendly cities has engaged older people, especially those who are socially marginalized, to play a critical role in the process of shaping age-friendly policy (McGarry, 2018).

Older people should not be viewed as "victims" or passive receivers of changes of urban and community environments, instead, researchers need to fully identify their potential to influence, as well as contribute to, these changes because of their lived experience and community attachment (Thomése, Buffel, and Phillipson, 2018). Local older people's strength cannot be ignored because "there is great resilience and creativity among the city's older population, reflected in the resourceful and committed patchwork of formal and informal community organisations" (McGarry and Morris, 2011, p.39).

However, compared with powerful organizations and persons, older people, especially those are the most socio-economically weak, tend to have the least agency in the society, which often prevents them from civic participation (Rémillard-Boilard, 2018). Older people's participation encounters significant limits in capacity to implement the policy solely by

themselves (Garon *et al.*, 2014). Thus, having more positive attitudes (Rowles, 1978) may not be enough for older people to increase their power, because they may need to receive specific community education to enhance their civic participation in a collaborative way in the context of the development of the age-friendly city and community initiative (Scharf, McDonald and Atkins, 2016).

2.4.6 *A critical reflection on WHO's age-friendly initiatives*

The WHO's Age-friendly Cities guide explains different actions within cities' capability to tailor their services and infrastructures to older people's needs (Garon *et al.*, 2014), and has been powerful in increasing public awareness about the effect of population ageing, particularly for the planning of urban built environments (Buffel, Phillipson and Scharf, 2012), although the barrier of social prejudices and stereotypes such as ageism still impedes the process of delivery of an age-friendly city (Buffel *et al.*, 2014b).

The age-friendly community initiatives (AFCIs) shifts previous political focus from supportive services for targeted individuals to broader physical and social environments of the whole community (Greenfield *et al*., 2015). One of features of an age-friendly city is "diversity", which means the city offers an friendly environment to users of all ages and with different capabilities (Plouffe and Kalache, 2010). Nevertheless, in the Western countries in particular, the age-friendly community initiatives tend to focus on and benefit older people who are White, wealthy and healthy, thereby aggravating inequities potentially (Buffel, Handler and Phillipson, 2018). In short, the age-friendly initiatives must take into consideration needs of all populations (Fitzgerald and Caro, 2014).

The WHO age-friendly initiatives lack consideration on the protection of basic social and income of older people. Given the limited resources in society, policy makers are required to work out a balanced distribution of social and economic resources among people of all ages and with diverse backgrounds when implementing the initiatives, but the age-friendly framework fails to provide further directions for governments to produce reasonable policy priorities: it is still not clear which target groups should be given more attention in policy making (Chan, Lou and Ko, 2016). In other words, the WHO initiative needs to contribute to the "policy priority of reducing social inequalities within living environments" (Plouffe, Kalache and Voelcker, 2016, p.33).

Globally, there is an increasing recognition of AFCIs' potentials, including promoting older people's well-being and health, making services and support more accessible, and engaging stakeholders from different sectors (Greenfield *et al*., 2015; Steels, 2015), and the WHO's initiative has become a global movement in supporting older people to age well in urban settings (Buffel, Handler and Phillipson, 2018). The age-friendly guidelines and framework have been implemented in varying social contexts, and based on growing experience from cities in different locations, more age-friendly elements, such as informal social networks and social support, have been added to its eight original domains (Plouffe, Kalache and Voelcker, 2016).

However, there is a criticism that the age-friendly city guidelines and checklists are developed world oriented (Chan, Lou and Ko, 2016). One challenges for the AFCC is engaging developing countries in the international age-friendly network (Moulaert and Garon, 2016). During the 1980s and 1990s, ageing was mainly explored in the Western developed countries, although there has been a growing body of research and practice conducted in Asia, a large number of countries, such as Indonesia and Vietnam, are not involved in this age-friendly initiatives deeply partly because the population in these countries is still relatively young (Loo *et al*., 2017).

The age-friendly initiatives lack quick response to diversity both in respect of individuals and society (Plouffe, Kalache and Voelcker, 2016). Thus, changes to the original domains might be needed depending on the specific context, in other words, the WHO age-friendly checklist should not be viewed as a rigid set of rules, instead, it should serve as a "starter" list, and stakeholders would need alternative new instruments for assessing age-friendliness (Plouffe, Kalache and Voelcker, 2016).

In addition, WHO (2007) argues that the age-friendly cities framework is based on the concept of active ageing. It is argued that the research on ageing should consider "intergenerationality", "intersectionality" and "lifecourse", and take a more holistic and inclusive view (Hopkins and Pain, 2007). However, Walker (2016) points out that in practice "the comprehensive, all ages, aspect of active ageing is often ignored" in age-friendly policies, in other words, there is a risk that " 'age friendly' instead of 'ageing friendly' becomes the dominant focus" (p.61). Taking participation for example, the initiative has been criticized for lacking expectation of real engagement of older people, though Plouffe, Kalache and Voelcker (2016) argue that empirical studies indicate older people's engagement in age-

friendly action through varied engagement type and extent. Hence, considering the progressive, dynamic and comprehensive characteristics of active ageing, the WHO's AFCC model needs to be considered as a means, rather than an end (Moulaert and Garon, 2016).

It is not clear about specific roles and contribution of different stakeholders in the process of implementing age-friendly initiatives. Case studies of Brussels and Manchester (Buffel *et al.*, 2014b), and Waterloo (Lewis and Groh, 2016) highlight the importance of establishing and promoting a broad-based collaboration with multiple stakeholders, including governmental leaders and officials, community volunteers and local residents, as the keystone in implementing the age-friendly initiative, especially the leadership and coordination by local authorities (Buffel *et al.*, 2014b). But, a lesson from Ireland shows that stakeholders at local, national and international levels could differ in their perspectives in the motivation and action plan in carrying out age-friendly initiatives (McDonald, Scharf and Walsh, 2018). In particular, little is known about which specific actions could achieve which specific theme of the age-friendly framework, especially there are no measurable policy outcomes that can be identified (Chan, Lou and Ko, 2016). Furthermore, as Sixsmith, Boneham and Goldring (2003) point out that, there exists a potential issue with regard to credibility and trust when contacting community leaders for recruiting interview participants during the investigation, because as gatekeepers the community leaders could block access to participants or "could attempt to influence the research process with their own version of 'reality' by indicating only participants "approved of" by themselves" (p.583).

This section showed concept, research and initiatives of age-friendly cities and communities. An age-friendly city or community provides supportive physical and social environments in which people can grow older actively, and offers opportunities for older people to participate in urban and community life. In the meantime, age-friendly cities need to support individuals to adapt to changing urban environment throughout lifelong course, and address issues and changes at different levels, ranging from individuals to social organizations. With regard to implementation, the WHO's age-friendly initiatives provide a detailed guide and a global communication platform for the development of age-friendly cities and communities across the world, in which the roles of governments and older people are highlighted, although issues exist in both of them.

It is argued that the WHO's age-friendly cities' guidelines and checklists are developed world oriented, and in the Western countries the age-friendly community initiatives tend to focus on

and benefit older people who are White, wealthy and healthy. Hence, it is necessary to put the age-friendly initiatives, including the WHO's guidelines and checklists, into other locations with different cultures, to see what could be added to make the age-friendly framework more applicable in different societies. The next section will address this concern from Asian and Chinese perspectives.

2.5 Age-friendly initiative in Asia and its implementation in China

This section discusses the development and implementation of age-friendly cities and communities in Asian context, with a special focus on ageing-related issues in China. Furthermore, this section reviews current literature on age-friendly cities in China, trying to identify the gap in research on it in Chinese context. In addition, the section presents a brief introduction to the China's planning, with a special focus on the country's planning system, including plans at different levels.

2.5.1 *Research on age-friendly urban environments in Asian context*

Findings from Asia-Pacific countries, such as Hong Kong, Japan, Singapore and China (Phillips *et al*., 2018) demonstrate common features in demographical change, ageing-related issues and pathways in implementing age-friendly initiatives. It might be attributed to the similarity of cultural influence, because ethnicity has a profound impact on the ageing experience (McDonald, 2011). A study of Hong Kong indicates the influence of filial piety on P–E fit: older people who support filial piety values might assess P–E fit by referring to the social support received (Phillips *et al*., 2010, p.225).

The cultural influence persists in people's everyday life even if they are living overseas. Taking the family values and support for example, a study has found that compared with their British counterparts, immigrants from southern Europe and Asia provide significantly more care to older members (Keefe *et al*., 2000). In addition, literature shows that older Chinese who reside in Western cities tend to experience social isolation and loneliness, but their immediate family members may be the main source of support for them because of "traditional Chinese cultural values and positive familial relationships" (Syed *et al*., 2017, p.239).

In particular, features in Eastern culture, such as family values and deep-rooted respect for older people, have driven the development of an oriental paradigm in the implementation of age-friendly initiatives (Chao and Huang, 2016, p.85). For instance, due to cultural differences, in Eastern countries, empowerment strategies for older people are distinct from those in Western countries, because eastern philosophy Confucianism respect older people and values their wisdom and lived experience (Chao and Chen, 2017; Liu, Kuo and Lin, 2018). The results of a survey conducted in Taitung County of Taiwan show that older participants tend to be content with "respect and social inclusion", and the reason for this reflects the influence of Chinese culture (Liu, Kuo and Lin, 2018).

Apart from culture, research conducted in Asian countries has identified that other domains of the city, in particular the socio-economic context, also exert considerable influence on age-friendly cities and communities, and the interplay between culture and socio-economic conditions might be different. Hong Kong is a special area where East and West cultures mix together, but current observation by Chan, Lou and Ko (2016) shows that Chinese tradition of "respecting older people" is waning in significance (p.149) because, it is alleged, the public and the government often pay too much attention to economic growth, ignoring social development.

In Chinese societies, there is a complex interplay of culture and empowerment (Chao and Chen, 2017). The WHO's AFC framework can serve as a useful model for contextualising issues of social isolation and loneliness into the discussion of research, policy and practice (Syed *et al.*, 2017, p.241). For instance, Hong Kong's age-friendly city initiatives have proven to be especially effective in promoting older people's civic participation in communities, because it has been identified that older Chinese in Hong Kong show greater interests in engaging in community services and voluntary work than in participating in political activities (Chan and Cao, 2015). Their active involvement in neighbourhood affairs might be attributed to Chinese culture and deep-rooted networks of communities of the city: the traditional Chinese concept of "Yuan qin bu ru jin lin" (which means "a good neighbour is better than a distant relative") reinforces older people's attachment to their neighbourhoods, where they could have easy access to instant assistance, socialization and a sense of belonging (Chan and Cao, 2015, p.57).

However, in contrast, older Chinese in Taiwan tend to show the least concerns about community participation (Lin, Chen and Cheng, 2014). A case study of Taitung County

shows that older people are dissatisfied with "civic participation and employment" (Liu, Kuo and Lin, 2018). Another case study of Taiwan revealed that although there exists partnership between community leaders and local residents, older people's needs are still ignored (Chao and Chen, 2017), with the views of community leaders' playing a decisive role at the level of action plans implemented in community (Chao and Huang, 2016).

In order to increase older people's awareness of civic participation, the Hong Kong government implements age-friendly initiatives that encourages life-long learning and developing caring communities (Chan and Cao, 2015, p.66). But, these measures might not be applicable in other locations, for instance, results of a study show that older Chinese in Taiwan are less interested in lifelong education (Lin, Chen and Cheng, 2014). In addition, the Hong Kong's age-friendly action plans also involves a variety of programmes involving different stakeholders such as government, older people, social organizations and research institutions for fostering older people's civic participation (Chan and Cao, 2015), but in Taiwan older people often shy away from expressing their individual needs (Chao and Huang, 2016, p.87).

Suitable action plans, especially medium and long-term strategies, should be produced based on local conditions and issues (Liu, Kuo and Lin, 2018). Since older people should be the ultimate experts in the process of producing action plans for age-friendly cities and communities (WHO, 2007), then the perceptions of older residents would be a key indicator of local ageing conditions. A survey conducted in Taiwan indicates that physical and mental health are the most important elements in the cognition of active ageing among older Chinese, while in terms of related active ageing activities, they mention leisure most frequently (Lin, Chen and Cheng, 2014).

Research in Chinese societies has identified some barriers to older people's participation in active ageing activities, such as poor transportation (Lin, Chen and Cheng, 2014; Liu, Kuo and Lin, 2018) and excessive distance (Lin, Chen and Cheng, 2014). Moreover, economic stability is a premise for older people's participation in social activities (Liu, Kuo and Lin, 2018).

Urban infrastructure, including neighbourhoods, needs to be modified or improved to support older people who might experience functional limitations and disabilities (Loo *et al*., 2017). It has identified that neighbourhood context is positively associated with older people's well-being, and the results of a case study conducted in Beijing further highlight the domains such

as public space, ageing population density and senior services (Zhang *et al*., 2018, p.949). Moreover, improving walkability, which is supported by trip free surface and pedestrianized areas, should become a priority policy area for governments (Loo *et al*., 2017).

Despite the striking geographical diversity in Asia, results of research on three major Asian cities, i.e., Hong Kong, Singapore and Tokyo, show that the association of neighbourhood characteristics with older people's health is independent of geographic factors: subjective perceptions of neighbourhood, including subjective walkability of neighbourhood, peer group influence and lifestyle, are important in affecting older people's health (Loo *et al*., 2017, p.825). Furthermore, a study of Beijing community also discovers that subjective perceptions of neighbourhood, for instance, sense of community, serve as a link between neighbourhood characteristics and older people's well-being; personal resilience can enhance the impact of neighbourhood context on well-being (Zhang *et al*., 2018, p.961). For older Chinese who live in the Western context, Chinese-featured spatial elements in neighbourhoods might help to enhance their community attachment (Syed *et al*., 2017).

2.5.2 *Ageing in China: what are older Chinese experiencing?*

Chinese culture might offers an alternative perspective on ageing, but with fast socio-economic development as well as significant demographic change in China, characterised by rapid population ageing and urbanisation, today's older Chinese are facing both challenges and opportunities in their later lives. Thus, the following part discusses some of these influential factors that are shaping the landscape of ageing in this country.

(1) Two demographic shifts merge together: population ageing and urbanisation

China recognised that it was an ageing country in 1999. By the end of 2014, China had about 212 million older people, which accounted for 15.5% of the country's total population (NBSC, 2015), and it is predicted that in 2050 around 36.5% of Chinese will be aged 60 and over (UNDESA, 2015). At the same time, China's urbanisation rate will reach about 60% in 2020 (Jian and Huang, 2010), and probably around 75% in 2050 (Liu, 2011). Therefore, the two significant trends in urbanisation and population ageing are combining to change the landscape of the country profoundly. A report estimates that China's population would be 1.35 billion in 2050 (UNDESA, 2015). Drawing upon these, China's ageing population of

urban areas would be about 0.4 billion, which accounts for nearly 29% of the country's population.

In China, urbanisation has multiple implications for older people's lives. First, urbanisation is changing the living environment of older urban residents. The rapid sprawl of cities generates urban villages that are transitional neighbourhoods located in urban areas and characterised by a mixed rural and urban society, and state- and collective land ownership (Zhou, 2014). Older people who used to be farmers have to face major rapid transformations in their living surroundings.

Second, there are currently more than 100 million rural migrants living in urban areas, and although they have accomplished changes in occupation and living environment, many of them have not achieved changes in status, which means that social integration is still an issue (NPFPCC, 2010).[5] Also, integration will be more difficult for older people who may need a longer time to assimilate into their new communities because of barriers due to culture and dialect.

Thirdly, urbanisation, which was brought about by the opening up of the economy, is changing the family structure. The theory of markets believes that large cities should be the focus of urbanisation (Wang, 2014), and sharp regional differences in China drive people, especially young people, to move from their small home cities to more developed larger ones, often leaving their parents alone at home. The rise of empty nesters (as these households are popularly called) challenges traditional filial piety, which emphasises children's moral obligation to support their aged parents (Fan, 2006).

Fourthly, rapid redevelopment driven by fast urbanisation is changing the characteristics of urban neighbourhoods; for instance, a case study of Guangzhou shows that after redevelopment, "neighbourhood attachment becomes more influenced by residential satisfaction but less by neighbourly contacts, and community participation becomes less subject to community social networks and neighbourhood attachment" (Liu *et al*., 2017, p.266).

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[5] Rural migrants are experiencing a series of challenges in the process of integration into new urban environments. For instance, according to *hukou*, which is the Chinese household registration system, a citizen's status does not change automatically when he or she changes his or her residential area; therefore, most rural migrants have agricultural *hukou* status, and are not allowed to obtain access to specific benefits available only to their urban counterparts, such as educational opportunities and housing purchase rights.

(2) The implication of socio-economic shifts for ageing in China

Fast demographic ageing, including longer and healthier longevity, together with rapid social and economic development, is also shifting Chinese views about older people from the traditional value that "respects elders and allows them to rest after a long life of hard work" to a view that "the services-and-support vision of older adults is not the full picture" (Sherraden, 2010, pp.101, 103).

Fast population ageing may strain national budgets, but the nature of work has shifted from manual to the service and knowledge economy throughout the world. Chinese older people are more likely to be viewed as human resources; furthermore, a large number of older people want to and should be able to contribute to their families and society (Sherraden, 2010).

There are two features in Chinese traditional culture that support the concept of productive ageing, among which are pragmatism (Sherraden, 2010) and the "elderly elite" concept: "respecting older adults, and their contributions to familial and social harmony, and stability" (Peng and Fei, 2013, p.5). Even in a foreign context, older Chinese tend to maintain an active lifestyle; for instance, Lee (2014) investigates older Chinese migrants in the north of England, and finds that they are still trying to maintain some control over their lives according to their own methods of marking time – the rhythms in their previous agricultural environment, in a completely different foreign urban context; while some older people accept the rhythm of disengagement after retirement, others try to maintain a rhythm of busy-ness.

In the context of rapid socio-economic development and improvements in education and healthcare, the role of older Chinese is experiencing a fundamental transition (Peng and Yang, 2010); they are able to achieve the changes in their roles "from social problem-makers to the problem-solvers, from consumers of social wealth to both consumers and creators, and from social development obstacles to instruments of development" (Peng and Fei, 2013, p.9). One of the imperatives is to stimulate the development of "silver markets" and social entrepreneurship for and by older people, which would "benefit the ageing population itself while also benefiting the country's economic and social institutions" (Mui, 2010, p.122). There is also a call for policies to address their needs for engagement in employment, volunteering, caregiving and pursuing a lifelong education (Peng and Yang, 2010).

(3) The influence of the One Child Policy

The so-called One Child Policy was implemented by the Chinese government in 1979, under which married urban Han Chinese couples were allowed to have one child only.[6] The goal of this policy was to control the rapid increase in population in order to ease the tension between the growing population and limited natural and social resources.

Scholars have pointed to a series of policy consequences. Cameron *et al.* (2013) point out that the One Child Policy "has produced significantly less trusting, less trustworthy, more risk-averse, less competitive, more pessimistic, and less conscientious individuals" (p.953). In addition, due to the consequence of fewer babies, this policy played a major role in creating the unprecedented increase in the percentage of ageing population (Jing, 2013). Even after the new Two Child Policy was implemented in 2015, its effects on the shrinking workforce and fast population ageing might not be evident for about 20 years (Zeng and Hesketh, 2016), if at all.

In particular, this policy also has negative implications for older people's well-being. Influenced by traditional culture, older Chinese parents tend to hold a view that they should live with their children, but the traditional choice for older people's living arrangement is facing more and more challenges (Bartlett and Phillips, 1997). Chinese family size and structure has changed dramatically as a result of the One Child Policy, causing a decrease in parents' reliance on their children in their old age (Deutsch, 2006; Feng, *et al.*, 2014). It is estimated that only 37.8% of older people live with children (CHARLS Research Team, 2013). One million families have lost their only child; these parents are suffering mentally and physically, and experiencing the biggest difficulty in having to rethink their old age support from the expected cultural model, i.e. loss of care and support from their children (Song, 2014; Li and Wu, 2013).

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[6] The One Child Policy is a part of family planning policy, under which Han Chinese in urban areas were limited to one child, and ethnic minorities and rural dwellers were allowed two. At the end of 2015, the central government of China abolished the policy, allowing urban dwellers to have two children.

(4) Issues of health and healthcare

The overall health condition of older Chinese is relatively low, and tends to be affected by factors such as education, *hukou* and the determination of access to services, and regional disparities (Liu *et al*., 2017). Those with lower socio-economic status, such as older women or residents living in rural areas with lower education and income levels, are more likely to report poor self-rated health and disability. An uneven level of health conditions is also seen between provinces (Evandrou *et al*., 2014). Driven by both attachment to traditional medicine and difficulties created by new funding regimes for medical care, older people with low incomes tend to rely on self-medication with prescription-only medicines that can be easily accessed in community pharmacies. These are frequently low quality and present risk to the consumer (Chang, Wang and Fang, 2017). In addition, older Chinese tend not to understand preventative health screening, "thinking that seeing a physician is needed only when one has a health problem", and this misunderstanding may be attributed to the specific social and economic environments of the Chinese, "where using preventive health measures was not a common practice or was not available" (Lai and Kalyniak, 2005, p.585). Instead, older Chinese tend to view participation in physical and mental activities (such as playing chess or cards) as preventive health care (Wang and Zhai, 2015).

In China, the long-term care system mainly relies on informal care given by family members, and this system faces both an unbalanced pressure of demand, which is subject to changes in disability trajectory of older people and the lack of availability of formal care provided by the government (Hu, 2018). The country's formal healthcare system is under pressure also, due to population ageing, and older Chinese are facing an unfair healthcare insurance system[7] as well as insufficient resources (Wang and Chen, 2014; Li and Zhang, 2013). The healthcare system as such faces a series of "challenges in structural characteristics, incentives and policies, and quality of care", such as "inadequate education and qualifications of its workforce", and "ageing and turnover of village doctors" (Li *et al*., 2017, p.2584).

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[7] The unfair healthcare insurance system is reflected in the large disparities between the New Cooperative Medical Scheme, the urban Resident Basic Medical Insurance, the Urban Employee Basic Medical Insurance, and the Official Medical Insurance system (Wang and Chen, 2014).

(5) Filial piety and challenges for intergenerational support

In traditional Chinese culture, family relationships are by and large shaped by the philosophy of Confucianism. Confucian philosophy sees filial piety as a primary human duty. Chinese filial piety stresses self-sacrifice to older people (Wong, 1995), thus, children are expected to ensure the happiness of their parents (Welty, 1976).

Filial piety emphasises children's moral obligations to support their aged parents (Fan, 2006), and older Chinese tend to feel proud of being taken care of by younger family members (Lee, 2005). A remarkable level of filial piety can be identified among Chinese people, and life satisfaction is positively correlated with filial piety in Chinese society (Deutsch, 2006; Chen, 2014).

Intergenerational support, in particular, emotional support, is more important for older people's subjective well-being than social support in China (Peng, Mao and Lai, 2015). Even today, some older Chinese people still have a strong belief that they should live with their children (Chiu and Yu, 2001). However, the evidence from Hong Kong shows that traditional Confucian filial piety is on the wane due to changes in traditional values (Ng *et al*., 2002), which may be attributed to profound differences in socio-political systems (Yeh, *et al*., 2013). Given Hong Kong's longer exposure to Western influences and advances in social and economic development, this may be a predictor of future change on the mainland.

Shifts in demographics, economics and culture may have altered the traditional patterns of filial piety (Lei, 2013); in particular, socio-economic experiences may produce different effects on the practice of filial piety (Lin and Yi, 2011). For instance, traditionally, sons, rather than daughters, are expected to take the major responsibility for taking care of parents, but this gender pattern is changing in cities;[8] sons and daughters are now taking equal responsibility, though the old pattern still persists in rural areas (Lei, 2013).

What is more important is that because of the shrinking scale of urban families in China and the increasing insecurity caused by the transition to a market economy, the expectation of intergenerational support might not be realistic (Zavoretti, 2006), for traditional family support networks are weakening (Liu *et al*., 2017). Social changes are driving the traditional

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[8] This is partly because under the One Child Policy, if an older person only has one child and it is a daughter then he or she has to depend on the daughter. However, there is a preference for sons in Chinese culture, which has caused an imbalance in the population's gender ratio (Lei and Pals, 2011).

type of support to become less significant, and the reverse pattern is appearing, in which an increasing number of children have to receive material help from parents due to housing affordability problems (Li and Shin, 2013).

2.5.3 *Planning in China: What is urban planning like in the Chinese context?*

To a great extent, urban planning has significant implications for the implementation of age-friendly cities and communities. China's modern city planning concept and approach are based on the Western model, but there are significant differences in city development between China and the West (Wu, 2006). After the establishment of the People's Republic in 1949, a series of wars - the Second World War, the civil war (1945–1949) and the Korean war (1950–1953) - and social upheavals, such as the Great Leap Forward[9] (1958–1960), made a fragile economy even worse. Therefore, at that time, China's planning focus was on city reconstruction as well as the development of industrial production (Li, 2017).

After the reform and opening-up policies were implemented in the late 1970s, the private sector share of the economy has experienced continual growth. In such a social context, China's urban planning started to shift its main function from "creation" to "management", and pay more attention to its role in facilitating economic development (Peng and Luo, 2006). In 1989, the first planning law in China was passed, and in 2008 the new Urban and Rural Planning Law replaced earlier legislation.

Based on the Planning Law of China, the country's planning system works on a hierarchical system that responds to scale. Plans are made at city, town, township and village levels. More specifically, the city plan and town plan can be divided into master plans and detailed plans, and the detailed plans can be further divided into detailed regulatory plans and detailed construction plans. The planning system of China may be visualised in Figure 2.2.

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[9] The campaign was an unsuccessful attempt to hasten the process of industrialization and improve agricultural production by reorganizing the population into large rural collectives and adopting labour-intensive industrial methods.
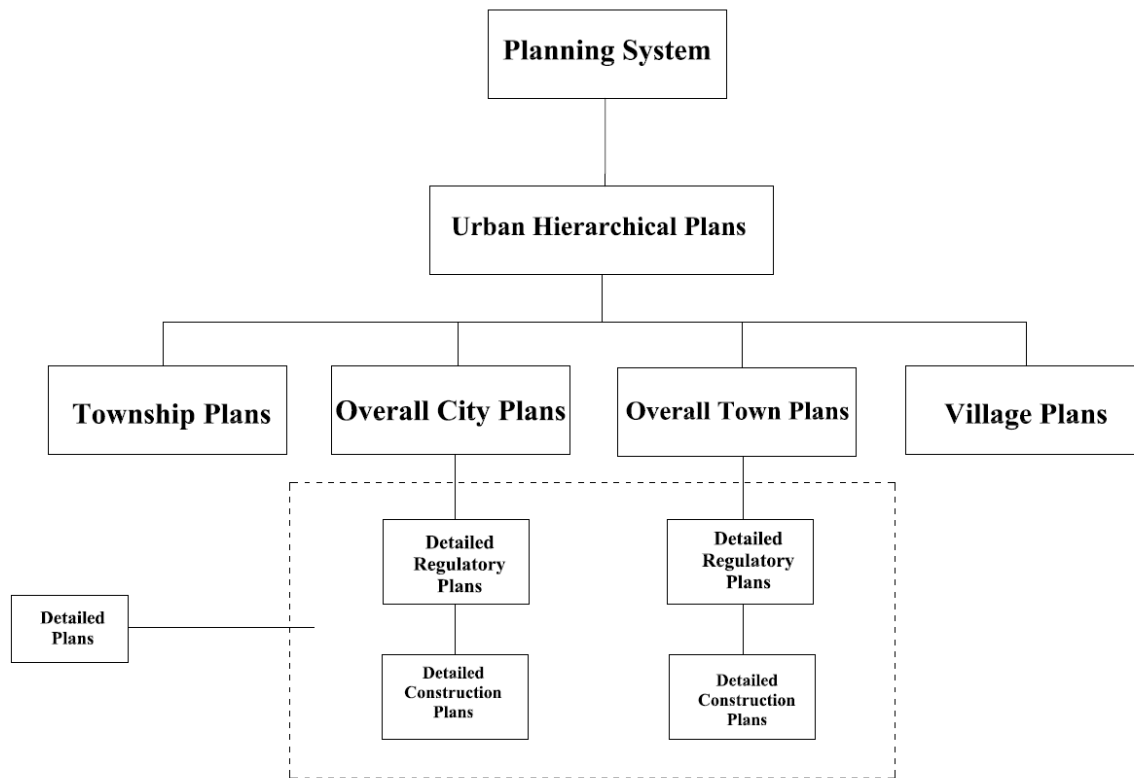
Figure 2.2 Planning System of China (Source: author)

The overall city plan gives the general location of essential facilities in the city, such as public services and industry, and suggests the direction of the city's future development. This is often called a "master plan". The overall city plan can be further divided. The detailed regulatory plan sets out a series of planning requirements for individual plots of land, such as building density and green space ratio. A plot of land in the detailed regulatory plan usually covers the area of a block. A plan of this kind is actually a detailed planning document, and developers who apply for permission to carry out construction must comply with the requirements. The other is the detailed construction plan, which sets out the architectural design and engineering requirements. The detailed construction plan must obey the detailed regulatory plan, and the latter must comply with the overall city plan.

The Planning Law requires each city government in China to produce these recognised plans; however, beyond that, though they are not obliged to do so, a number of cities or provinces have chosen to develop plans at larger regional scale, such as plans for city clusters. The regional plan often crosses the borders of cities or even provinces: for example, the plan for the Yangtze river delta region covers provinces of Shanghai, Jiangsu, Zhejiang and Anhui, and focuses on the urban system and industrial development of this extensive region. These

plans do not have official recognition, but, nonetheless, they are gaining popularity, especially in some economic zones where regional co-operation between cities is needed.

2.5.4 *The gap in research on age-friendly cities and communities in China*

Keeping an active and independent later life in place is particularly important in developing countries, many of which are experiencing rapidly ageing populations, yet without sufficient resources in health- and social care (Woolrych, 2016a). In this respect, the age-friendly cities approach may create considerable benefits, but in respect of China the literature is scant. Through reviewing available related research, four major gaps can be identified.

First, existing investigations tend to focus on a limited number of spatial elements of cities, such as green space and public transportation. Taking green space, for example, a study conducted in Guangzhou, China, finds that urban green spaces play a key role in retired people's daily lives, and older people tend to be frequent visitors (Shan, 2014). Likewise, another study conducted in Hangzhou, China, also indicates that older urban residents tend to recognise the benefits of green space (Byrne *et al.*, 2015). At the same time, Chinese dwelling conditions featuring high-rise housing, high-density, and limited private living areas and little if any private green spaces so can be constructed that this creates a pressure to be outdoors and enjoy public green spaces for leisure activities more often than their counterparts in most Western cities (Pincetl and Gearin, 2005; Lo and Jim, 2010; Shan, 2014). There is, to date, no study that assesses a city's built environment's age-friendliness based on the perspective of WHO's age-friendly cities framework.

Secondly, study areas of existing research are concentrated in tier 1 or 2 cities, such as Shanghai and Guangzhou. Furthermore, compared to the total number of Chinese cities – about 660 – the involvement of Chinese cities in WHO's initiatives is quite limited both in the original previous development of the guide and the expanding network. Shanghai was the only city in China that was selected to contribute to the formation of the guide, and in the network, there are just two: Hong Kong and Qiqihar. As a developing country, cities in different parts of China experienced diverse stages of socio-economic development: for instance, tier 1 cities could not be indicative of the development or growth of tier 3 cities. Similarly, the lessons from Shanghai being a WHO age-friendly city did not necessarily prove to be helpful to the growing cities of tier 3.

Thirdly, ethnographical investigation on how place supports older people's activities is limited both in breadth and depth. For instance, existing research on age-friendly transportation in Shanghai includes an investigation of travel characteristics and related factors concerning older people who live in the city centre (Huang and Wu, 2015), and another study on older people's daily travel behaviour in the downtown area (Huang, Wu and Xiao, 2016). Findings show that walking is the main travel mode for older people (Huang and Wu, 2015), and necessary travel connections by bus are provided (Hu, Huang and Niu, 2016). However, there are more aspects of public transport that need to be given attention, such as drivers' attitudes and bus accessibility. These research studies mainly record big data of older people's travel, ignoring their subjective evaluation.

Last but not least, existing literature falls short in outlining the role of urban planning in delivering age-friendly cities in the Chinese context. Place-making – for instance, neighbourhood design – can encourage active ageing (Michael, Green and Farquhar, 2006), and urban planning is the basis of place-making (Madureira, 2015; Dorsey and Mulder, 2013). Research conducted in the West – for example, Australia – discusses how planning can create built environments that foster health and well-being for an ageing population, highlighting the critical role of policies, practice and education in producing more age-friendly cities (Alidoust and Bosman, 2016). However, there is no specific study that reviews these issues in the Chinese planning context.

This section explored age-friendly cities and communities in Asian and Chinese contexts, in particular, identified ageing-related issues and gap in research on age-friendly environments in Chinese cities. Eastern cultures, in particular the Chinese Confucian philosophy, could exert positive impacts on the development of age-friendly cities and communities, although the cultural influence is challenged by fast economic growth. Apart from culture, the socio-economic context could exert significant influence as well, for instance, Hong Kong and Taiwan share the same Chinese culture, but due to diverse socio-economic conditions, older people in Hong Kong tend to be interested in community participation, while their counterparts in Taiwan tend to show the least concerns about it, which might be attributed to the community leader's role in local decision-making structure.

In China, because of the country's fast socio-economic development as well as rapid population ageing and urbanization, older Chinese are experiencing a rapid shift in the urban built environment and are facing a series of challenges to ageing well in their places. For

example, their later lives might be challenged caused by the changes in urban built environment driven by urbanization and city's development. However, research on age-friendly cities in China is insufficient and lacks assessment of the age-friendliness of a city's built environment according to the WHO's framework, more case studies of cities of different tiers, and in-depth ethnographic investigation of older people's subjective evaluation of place. In addition, urban planning is a key to age-friendly cities, but a significant gap was identified in the amount of literature on planning's role in the creation of age-friendly cities in the Chinese context.

2.6 Summary

This chapter reviewed literature on the relationship between active ageing and place, with a special focus on urban contexts. The exploration of urban place's role in supporting active ageing focused on existed studies and implementation of age-friendly cities and communities, in particular the WHO's age-friendly initiatives. At the end of this chapter, implementation of age-friendly cities and communities in Asian and Chinese contexts was presented, identifying the gap in relevant research on age-friendly urban space in China.

According to active ageing, older people should and can keep a more participation in activities to enhance their well-being in later life. Environment has significant influences on delivering active ageing, concerns of environmental gerontology, including the Ecological Framework of Place (EFP) and the person-environment fit (p-e fit) model highlight place's role, arguing that social and physical environments should address older people's needs at different levels.

People tend to have stronger place attachment when they age, thus, place should provide an environment in which older people can maintain social networks through social participation. In urban context, especially in fast-developing cities, older people have to face a series of challenges, mainly due to changes in urban places. In particular, living in unfamiliar and socially deprived environment would significantly lower older people's well-being because of lacking social networks locally.

To address older people's different needs and a series of issues in relation to ageing in urban places, and to look for practical pathways to supporting active ageing in such a changing and complex urban environment, the concept of age-friendly environments was introduced. An

age-friendly city or community provides supportive physical and social environments in which people can grow older actively, and offers opportunities for older people to participate in urban and community life. With regard to implementation, the WHO's age-friendly initiatives provide a detailed guide and a global communication platform for the development of age-friendly cities and communities across the world, in which the roles of governments and older people are highlighted, although issues exist in both of them, including bureaucratic of governmental departments and limited civic participation of older people.

Eastern cultures, in particular the Chinese Confucian philosophy, could exert positive impacts on the development of age-friendly cities and communities. However, the socio-economic context could exert significant influence as well: due to diverse socio-economic conditions, older people in Hong Kong tend to be interested in community participation, while their counterparts in Taiwan tend to show the least concerns about it, which might be attributed to the community leader's role in local decision-making structure. In China, older people are experiencing a rapid shift in the urban built environment and are facing a series of challenges to ageing well in their places. For instance, their later lives might be challenged caused by the changes in urban built environment driven by urbanization and city's development.

Through reviewing existed literature on age-friendly cities and communities in China, the gap in research on age-friendly urban space in Chinese context had been identified. Research on age-friendly cities in China is insufficient and lacks assessment of the age-friendliness of a city's built environment according to the WHO's framework, more case studies of cities of different tiers, and in-depth ethnographic investigation of older people's subjective evaluation of place. In addition, urban planning is a key to age-friendly cities, but a significant gap was identified in the amount of literature on planning's role in the creation of age-friendly cities in the Chinese context.

Chapter 3. Methods and Methodology

3.1 Introduction

The chapter sets out the methods used to data collection and analysis. The chapter begins by proposing research questions that emerged from the literature review. After identifying the position, objectives and contribution of this research, the rest of the chapter explains how the field work and analysis were carried out: Firstly there is a rationale for a case study methodology and the selection of the particular case study communities; secondly the chapter expounds the methods used, including rationales for and processes of data collection and analysis. In addition, at the end of this chapter, there is a discussion of how ethical issues were treated as well as a reflection on the study as a whole.

3.2 Research questions

This section proposes research questions based on some major findings and gaps identified in the previous literature chapter. The main concerns of these questions focus on the relationship between place and active ageing, as well as a reflection on the role of urban planning in making urban outdoor space more supportive of active ageing.

The literature review reveals that the interpretation of active ageing is highly varied. For some commentators it is linked to increased working lives that may bring wellbeing as well as financial benefits to an older person and increase national productivity. For others it is the individual keeping themselves mentally, socially and physically active in order to promote greater enjoyment of their added years. Taking this further it has become a normative view that a good old age is characterised by good health and is financially sound. These concepts of active ageing have been criticised by a number of fronts. Firstly that the overly ambitious concepts of active ageing may generate a form of "new ageism" (Boudiny, 2013). Moreover, a process of idealisation of active ageing might even become ultimately overbearing (Holstein and Minkler, 2007), excluding the frail and those who have low incomes (Formosa and Higgs, 2015). Secondly that the concept of active ageing has become a convenient shelter for neo-liberal thinking that is about reducing the responsibility of the state and transferring that to individuals and their families.

The WHO's Age Friendly City concept widens the scope for consideration of active ageing to the physical and social fabric of the city and how they may promote or inhibit multiple forms of engagement and activity by people throughout the life-course. It was discovered that the WHO's guide and chosen cities had little representation from developing countries and that

China with its particular cultural conceptualization of later life was largely absent. The rapid economic and urban development changes that have occurred in the last 30 years offer a new opportunity to consider the understanding of active ageing and how it may borrow from both tradition and the opportunities offered by a changing society.

According to related theories of environmental gerontology, in particular, the person-environment (p-e) fit model, the living environment should address older people's needs of different kinds and at diverse levels in order to support active ageing (Peace *et al.*, 2007; Carp and Carp, 1984). Therefore, based on the discussion on activities presented above, the outdoor space is required to provide rich opportunities for older people to meet their multiple needs for engaging in activities. In the meantime, older people's competence in pursuing better use of their places has also been identified in literature. Furthermore, when reflecting on the role of objective environment in active ageing, the cultural influence needs to be considered (Wahl and Oswald, 2010; Peace *et al.*, 2007; Rubinstein and de Medeiros, 2004; Wahl, Iwarsson and Oswald, 2012).

Hence, one of the objectives of this thesis is to explore the relationship between older people activity needs and outdoor space in China. In other words, the first research is presented as: **How do we understand active ageing in China through older people's use of outdoor space?**

To make urban space become more supportive of active ageing, WHO developed a framework of age-friendly cities, providing a guide on how to make the urban built environment more age-friendly and enhance older people to have an active later life. This framework explains different actions within the capability of cities to tailor their services and infrastructures to the needs of older people (Garon *et al.*, 2014), and has been powerful in increasing public awareness about the influence of population ageing, particularly for the planning of urban settings (Buffel, Phillipson and Scharf, 2012).

However, as was discovered in the literature review research on age-friendly cities in China is limited, because, first, existing investigations tend to focus on a limited number of spatial elements of cities – for instance, green space (Shan, 2014; Byrne *et al.*, 2015) – and there is no study that assesses a city's built environment's age-friendliness based on the perspective of WHO's age-friendly cities framework. Secondly, the areas studied by existing research are concentrated in tier 1 or 2 cities, such as Shanghai (Huang and Wu, 2015; Hu, Huang and Niu, 2016), Guangzhou (Shan, 2014) and Hangzhou (Byrne *et al.*, 2015). Cities in different parts of

China are developing at very different rates from the growth of existing mega cities to those towns in more rural parts of China that are now embracing the opportunity to become cities through attracting business and new developments. Investigations based on tier 1 cities cannot produce a template for the bulk of cities in tier 3 much less those in tiers 4 and 5. The lessons of Shanghai that was a WHO Age-friendly City as set out in the Guide did not necessarily prove to be helpful to growing cities elsewhere in China.

Hence, the second research question is proposed based on these gaps: **How age-friendly is the built environment in a developing Chinese city?** Drawing upon the standards of the WHO's checklist for age-friendly cities, this question aims to look into the age-friendliness of public outdoor and indoor spaces, including urban public places and facilities, public transport, public buildings and communities. Furthermore, this question also addresses the concern about what other dimensions of place can promote older people's well-being and support active ageing.

Literature shows that people tend to have stronger place attachment when they age (Wiles *et al.*, 2017), and place attachment could promote older people's well-being, for instance, there is a positive relationship between place attachment and health in old age (Wiles *et al.*, 2017; Norstrand and Chan, 2014). The place attachment could be defined as "insideness" (Rowles, 1983), in which "social insideness" is one major part, and could be obtained from "integration in the social fabric of the community and neighbourly support" (Buffel *et al.*, 2014a, p.802). Thus, it is important for older people to pursue "being in place" (Rowles, 1983, 2008) through keeping their social connections.

Place should provide an environment in which older people can maintain social networks through social participation (Rowles, 1978) and provide older people with support for active ageing, facilitating social inclusion (Woolrych, 2016). It is argued that a reasonably-designed and well-managed built environment can be an enabler to the social connectedness of older adults (Ahn *et al.*, 2019), however, in a changing urban context, especially in Chinese cities, social connection can be disrupted because of issues related to urban development, such as the displacement of older people (Phillipson, 2007) and rural migrants living in urban areas (NPFPCC, 2010). In addition, integration will be more difficult for older people who may need a longer time to assimilate into their new communities because of barriers due to culture and dialect. Although older people can move into other neighbourhoods with better facilities,

they may have to face loss of place attachment as well as long-established social connections (Wu *et al*., 2014).

Thus, in light of these issues, it is necessary to take a broader perspective to reflect on the third research question: **How do places support older people's social connections?** There are two concerns that will be addressed: first, how older people to keep social connections through the use of outdoor space? Second, in changing and complex urban settings, what issues might challenge place's role in supporting older people's social connections, and how to address these issues?

Place-making is the prerequisite for ageing well in place, and this process is based on urban planning (Madureira, 2015; Dorsey and Mulder, 2013). The WHO's "Age-friendly Cities" guide has been powerful in promoting people's awareness about the impact of population ageing, particularly for urban planning (Buffel, Phillipson and Scharf, 2012). The role of planning in supporting health and well-being of older people has been identified in an Australian study, in which planning policies and practice, as well as education, are highlighted (Alidoust and Bosman, 2016).

However, there is no literature available that discusses this topic in the Chinese context. In light of this gap, the fourth research question is raised: **How can urban planning support older people to age well?** This question will address three concerns: First, how do policies respond to population ageing? Second, what are planning professionals' opinions and advice on how to support older people through place-making? Third, how can planning education support planners in their ambitions to support older people to age well in place?

After identifying the research questions, the next section will consider on the position of this study through an ontological and epistemological reflection.

3.3 An ontological and epistemological reflection on this research

This section discusses on epistemology and ontology. This discussion is helpful in positioning this work and identifying more precisely the contribution of the researcher to developing the appropriate methods to respond to the study's research questions.

Ontology can be defined as theory about the nature of the world (Chatterjee, 2011), or the nature and structure of being (Rawnsley, 1998). In other words, ontology involves forming

concepts to understand empirical phenomenon (Goertz and Mahoney, 2012), addressing questions about the nature of existence and reality (Ladyman, 2007). More specifically, the major question raised in ontology is: What is it? including concerns about its essence and how it forms (Cleveland and Bartsch, 2018).

Epistemology is the analysis of knowledge, and its relationship to belief and truth (Ladyman, 2007), for instance, the central task of epistemology is to look for sufficient evidence for justifying belief and refuting scepticism (Rawnsley, 1998). Epistemology provides a reflection on the process or the way of acquiring knowledge (Rawnsley, 1998;Crotty, 2003), such as believing, perceiving, imagining and reflecting (Rawnsley, 1998). In other words, epistemology concerns what we can know (Raadschelders, 2011), and the major issue addressed in epistemology is the way we know it (Cleveland and Bartsch, 2018).

The discussion on ontology and epistemology can also contribute to the development of methodology and methods for the research. Methodology concerns how knowledge can be produced, and methods deal with what research practice can be employed (Raadschelders, 2011).

In this research, the overarching object of study is the urban place. From the ontological perspective, existing literature has confirmed the role of the place in promoting older people's active ageing in urban environment. Theoretically, according to WHO, active ageing consists of health, security and participation, thus, any space that provides opportunities for older people to achieve the three domains can be called an age-friendly place. Empirical studies and age-friendly practice across the world, especially in Western developed countries, have proven the possibilities for developing age-friendly cities and communities. Furthermore, related research also indicates the cultural and socio-economic impacts on the investigation and implementation of age-friendly place. But, nonetheless, both the research and practice of age-friendly cities and communities in China are insufficient. In other words, little is known about the existence and nature of age-friendly cities and communities in Chinese context.

Epistemological reflection explores the evidence of the existence of age-friendly place, or the way that people know it. In other words, developing a set of theories or standards for creating and assessing age-friendly cities and communities is a major task in epistemology. To date, the WHO's age-friendly guidelines and checklists are widely considered as the most comprehensive and reliable framework for developing age-friendly urban places. Nevertheless, there is also a growing literature identifying some potential issues related to the

WHO's initiatives, especially it is argued that changes are needed when implementing and evaluating the age-friendly initiatives in very different socio-economic and cultural locations. Therefore, this research takes the WHO's guideline and checklists as the research basis, and makes a contribution by producing a more appropriate version applicable to China.

The literature highlights the critical role of taking an older person's perspective on what is age-friendly of social as well as physical, which is also reflected in the WHO's checklists. In addition, older people's points of view (WHO, 2007), should always be at the heart of action plans and strategies for implementation. Hence, this research will contribute to scholarship in exploring the conditions of China's physical and social environments, through the lens of older people's lived experience and perception.

This section reflected on the current research through an ontological and epistemological perspective, trying to identify the position and main contribution of the study. From the ontological perspective, it has been identified the overarching study object is the urban place that supports active ageing in Chinese context, while the epistemological reflection indicated that this research will take the WHO's guideline and checklists as the research basis, trying to make contribution for producing a Chinese version of them. This research will contribute to the scholarship in exploring the conditions of China's physical and social environments, with a special focus on older people's lived experience and perception.

The chapter now goes on to consider how the fieldwork and data analysis were carried out a rationale for the case study methodology and these case study communities selection, and methods used, including data collection and analysis, as well as ethical issues.

3.4 Case study method: The nature of this research

This section discusses the reason for selecting a case study approach and the principles of how to select cases.

3.4.1 *What is a case study?*

A case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2003, p.13), and it can be also understood as an intensive investigation about a person, a group of people or a unit, aiming to generalise (Gustafsson, 2017).

Modern case study research was developed from ethnographic studies of urban sociology and comparative historical research (Elman, Gerring and Mahoney, 2016), and nowadays, it has become a popular research methodology that is used frequently in social and natural sciences (Heale and Twycross, 2018; Elman, Gerring and Mahoney, 2016).

Case study is a form of inquiry (Yin, 2003); in other words, this method is not aimed at producing specific ways to analyse cases, but to define them and to explore a context for better understanding it (Cousin, 2005), by the means of in-depth, detailed data collection involving several sources of information (Creswell, 2013).

The case-study method should intensively research a real-life condition that consists of one or more cases that should be temporally and spatially bounded and thus be context-dependent. The researcher can have greater flexibility when it comes to the time span, size and number of cases, as well as methods of data collection (Karlsson, 2016).

3.4.2 *Why choose a case study as the basic form for this research?*

The main study object of this research is older people's activities and living experiences in their places. Both older people's activity patterns and their built environment are subject to their socio-economic context. It has been identified that social engagement and physical activity among older people vary (WHO, 2010) due to a series of factors, such as gaps in culture (Crewdson, 2016), resources and social infrastructure (Bernard, 2013), and inequalities in health and economic conditions (Bengtson and Putney, 2009). Moreover, place offers a sense of belonging that evokes appreciation of environmental and cultural diversities (Ryan, 1995), and place-making should take into account social and cultural complexity (Røe, 2014). Furthermore, "the constraints of economics and culture and the exigencies of personal circumstances" often prevent people from pursuing the meaning of "being in place" (Rowles, 2008, p.133). In short, reflection on a larger context beyond activity patterns and the built environment is needed when researching the relations between older people and places.

Urban planning is another important factor that influences the built environment, because it is the basis of place-making (Madureira, 2015; Dorsey and Mulder, 2013). The policies, practice and education of planning play a critical role in producing more age-friendly cities (Alidoust

and Bosman, 2016).

Moreover, the proposed research questions start with "how". According to Yin (2003), "how" questions are more explanatory, and likely to lead to the use of approach of case study, for these questions cope with phenomena that requires to be traced over time. Clearly, to obtain better and more extensive knowledge of older people's lives, relying on surveys or reviewing archival records is far from enough. The research aim requires an investigation that traces everyday events that may happen in older people's daily lives over time, rather than mere frequency or incidence.

To sum up, this study takes into consideration multiple contexts, such as the socio-economic situation and the planning system, and the need to collect data from various sources. Therefore, this research chose the case study as its basic form, because this kind of investigation intensively investigates a contemporary phenomenon within its real-life context (Yin, 2003, p.13), and the researcher has greater flexibility when conducting data collection (Karlsson, 2016).

3.4.3 *How to select cases?*

The selection of case plays a central role in case study research (Elman, Gerring and Mahoney, 2016). The literature outlines some requirements in case selection. Firstly, cases should be context-dependent, which means they should be bounded up with each other spatially and temporally (Karlsson, 2016). Secondly, cases should be typical, deviant and crucial (Elman, Gerring and Mahoney, 2016). Thirdly, the findings of cases should be generalisable (Gustafsson, 2017; Gomm, Hammersley and Foster, 2000).

The gap identified in the literature chapter shows that there is no study that assesses the built environment's age-friendliness in a Chinese city. A single case study is not expensive and time-consuming, and it enables the researcher to have a deeper understanding of the subject being explored (Gustafsson, 2017). The selected case study city should be typical and the findings from it should be generalisable. The growing number of tier 3 cities suggests that one of these will produce findings that can be generalised to the greater number of Chinese cities.

The number and size of cases can be flexible in a case study (Karlsson, 2016). The selected

city can also serve as a context in which other smaller cases can be chosen. According to the research questions, places within the city that support older people to age well are these smaller cases. A multiple case study enables the researcher to examine the data within a range of conditions, and thereby to understand the similarities and differences between the cases (Gustafsson, 2017). Therefore, three or four places within the city were selected as cases.

The age-friendly community movement is the starting point of age-friendly cities (WHO, 2007), and creating an age-friendly community is the centre of implementation of the Age-friendly Cities' guide in many places (Steels, 2015). Previous research has found that a community environment (Liu, Dijst and Geertman, 2017) and a sense of community (Zhang *et al.*, 2017) are positively associated with the well-being of older Chinese. Drawing from these arguments, communities will be selected as study cases. Moreover, other places that provide platforms for older people's activities and have special meanings for their later lives are also selected as cases.

This section presented the rationale for selecting case study as the basic research form and some basic principles of how to select cases. It has been identified that cases should be context-dependent and typical, and moreover, the research would select a city and several communities as study cases. The next section will show how to select the case study area from a large number of Chinese cities.

3.5 Selection of research area

This section discusses how to select the case study area, i.e., the city of Anqing. To expound the rationale for selecting Anqing, the section will present some important points, such as the classification of cities in China, the city's ageing population, as well as the researcher's connection with the city.

3.5.1 *Classification of Chinese cities*

The present research conducted its case study in a tier 3 city: Anqing. China has about 660 cities at the moment. As a developing country, China's regional disparity is prominent. More specifically, the gap of economic development between the hinterland and the coastal provinces has grown rapidly since the country implemented the reform and opening-up policy

in the early 1980s (Fujita and Hu, 2001; Hu, 2002). For instance, the GDP per capita of the coastal city Tianjin in 2014 was about 105,000 RMB yuan (US$17,120), while Guizhou province's GDP per capita in the same year was about 26,400 RMB yuan (US$4,300)[10] (NBSC, 2015), which shows a significant economic gap of almost four times.

The shift from the former Soviet-style economy to a market-driven one makes possible an evaluation of Chinese cities based on industrial and commercial prosperity, and competitiveness. The advantage of the coastal developed region of China over the less developed hinterlands seems to be almost unchangeable. Fujita and Hu (2001) contend that globalisation and economic liberation have a strong influence on the increasing disparity. Furthermore, Hu (2002) attributes this disparity to the improving trade conditions and the burgeoning rural-to-urban labour mobility, and further point out that although the "location disadvantage of the interior comes from higher transportation costs in international trade", "increasing domestic accessibility can actually make the interior worse off" (p.314). In short, the new hierarchical structure of economic development of Chinese cities is likely to remain stable in the long term.

Thus, re-ranking Chinese cities by drawing on the non-politically influenced framework is of much significance; it is also the starting point of the work carried out by the well-recognised financial magazine *CBN Weekly* in 2013. The ranking process involved extensive analysis of the social and economic situation, investigating a series of factors of the selected cities including large commercial organisations' distribution, professional employees' preference, local residents' income, key universities' distribution, to name but a few.[11] According to the ranking report, the tier 1 cities are now Beijing, Shanghai, Guangzhou and Shenzhen. These metropolises may exert important economic and political influence on the country or even the world. The other cities can be categorised into four tiers (see Table 3.1). Most of the cities in the second tier are provincial capital cities like Hefei or coastal cities like Ningbo. Compared with other provincial cities, this group of cities usually receives prior development opportunities due to their status in the administrative system. A number of cities previously ranked as tier 2 cities are emerging from the group, but have yet to join tier 1. This group of cities include ones that are under the central government's administration such as Chongqing

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[10] Source: http://data.stats.gov.cn/english/easyquery.htm?cn=E0103 (Accessed: 8 November 2015).
[11] See more detail about the ranking process at http://www.cbnweek.com/v/article?id=6245 (accessed 16th June 2015).

and Tianjin, or regional central cities such as Wuhan and Nanjing. Most of the tier 3 cities are provincial central cities with a large GDP and limited strength. Tier 4 cities are mainly in central China. This group of cities' development mainly relies on local enterprises. Tier 5 cities are generally in the central or western part of China with a weak economic base and a poor transport situation.

Table 3.1 Chinese cities in five tiers (Source: author)

Rank	Tier 1	Tier 2	Tier 2	Tier 3	Tier 4	Tier 5
Characteristics	National central cities	Regional central cities with strong economic base and a large middle-class population	Provincial capitals or developed coastal cities	Provincial key cities with relatively large GDP	Cities in central area of China	Cities in centre or west with weak economic base
Number	4	15	36	73	76	200
Examples	Beijing, Shanghai Guangzhou Shenzhen	Chongqing Tianjin Nanjing Wuhan	Hefei Kunming Zhenzhou Ningbo	Anqing Sanya Haikou Shaoxin	Taizhou Quzhou Taicang Zhenjiang	Yuxi Tongling Heze Yiyang

Therefore, although the differences in China's cities are characterised by large gaps between the eastern and western parts of the country, the tier 3 cities can nonetheless provide us with better opportunities to explore the average situation. The third-tier cities serve an indispensable function in the national economic development. Compared with their fourth- or fifth-tier counterparts, the tier 3 cities in China have a relatively improved infrastructure and policy support; at the same time they are free of the negative impacts of "urban diseases" or a high "threshold" in the economy, which are common in first-tier or the second-tier cities (Ni and Li, 2015). Moreover, cities at the tier 3 level share similar conditions, indicating that the findings of a case study of a tier 3 city can provide useful reference for the others.

3.5.2 *The ageing population of Anqing*

By the end of 2013, the proportion of older people aged 65 and over in Anqing had reached 14.8% (SBAP, 2014), which was the highest in Anhui province. In 2016, the number of older people in the urban area reached more than 140,000, with multiple trends of very old people, empty-nesters and those with disabilities (Bureau of Commerce of Anqing, 2016).

The remarkable gap between Anqing and more developed areas drives a large number of young people to migrate to big cities to pursue their ambitions for a better life. At the inter-province level, the development of a floating population in Anhui province presents a stable long-term trend (Yu and Tian, 2015), which indicates that the majority of the migration population of Anhui province flows to the neighbouring Yangtze river delta region, which includes Jiangsu province, Zhejiang province and Shanghai, mainly due to their proximity (Guo, 2012). The term "floating population" refers to "those migrants who have moved across a township-level boundary for more than 6 months without changing their places of household registration" (Zhu, 2007, p.65).

At the provincial inter-city level, the spatial separation of floating population is reflected in the preference to move to the provincial capital city, Hefei, which is a typical second-tier Chinese city and the centre of convergence for the provincial population (Guo, 2010). Moreover, it has been identified that the proportion of young people is increasing and the number in the migration population of their older counterparts is decreasing (Yu and Tian, 2015). An official report on the city's population condition shows explicitly that the large-scale migration has caused a shortage of labour force in the city, and the situation is even worse than that of several neighbouring cities along the bank of the Yangtze river in the province.[12] As a result of the large migration of younger people, as the report points out, the old-age dependency rate of the city has risen to 22.6%.

Hence, to sum up, the distinctive conditions of Anqing provide the research with unique opportunities. First, the large proportion of older people is helpful in the collection of data. Second, older people living in Anqing are experiencing some special issues that are not

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[12] See the official report at
http://www.aqtj.gov.cn/index.php?m=content&c=index&a=show&catid=239&id=581
(accessed 5th June 2016)

common among their counterparts in big cities; for instance, the migration of younger generations.

3.5.3 *The researcher's connection with the city*

As a developing city, Anqing is boosting its social and economic development at great speed; thus, older people who live in the city are experiencing significant changes in their perspective and lifestyle. As a native of Anqing, the researcher has been living in his home city for over 30 years, and has shared in these significant changes, both in the urban built environment and the citizens' lives. For instance, many of the researcher's former schoolmates and friends have left the city, leaving their parents alone at home to become "empty-nesters".

What is more, the built environment of, for instance, the neighbourhood, which is also the most important research objective in the present study, is the most notable and recognised tangible shift during the course of urban development. Needless to say, the researcher has more direct experience in living in the changing urban built environment. Thus, at the planning stage of the fieldwork, the researcher anticipated that his shared experience might be beneficial in acquiring deeper understanding from the findings of the study.

Moreover, the use of local dialect in some necessary occasions was expected to be helpful for data collection as well. Anqing's dialect is quite different from Mandarin: for example, the word for "home" is pronounced "*jia*" in Mandarin, but "*ga*" in the local dialect of Anqing. In most cases, the older people in Anqing were able to use Mandarin to communicate but there were instances where using the local dialect helped to describe some topic, especially some local events, better than using Mandarin. Besides, talking to local older people in a shared dialect was judged to be helpful in building relationships between the researcher and participants.

A sturdy, deep and extensive social network is a critical factor that guarantees prompt development of fieldwork within a relatively short period. Using social networks enabled the researcher to build connections with participants who used not to be familiar with the researcher. What is more, the researcher's identity as a native of Anqing helped to create an easier and friendlier environment for interviews and focus group discussions. For instance,

based on the experience of the fieldwork, the researcher identified that it was much easier to gain access to older people as well as other respondents if he demonstrated his identity; otherwise, they would keep a wary eye on a "stranger".

This section presented some important points to explain why choosing Anqing as the research area. In China, tier 3 cities can provide us with better opportunities to explore the average situation, thus, findings of a case study of a tier 3 city can provide useful reference for the others. Being a third tier city in China, the distinctive conditions of Anqing provide the research with unique significance, such as highest proportion of ageing population in the province. In addition, as a native of Anqing, the researcher has living experience, social networks as well as advantage in using local dialect, which would benefit the progress and performance of fieldwork and data analysis.

After selecting the research area, the researcher conducted a pilot work in Anqing to become more familiar with the city's conditions as well as to make more preparations for the main research activity, including developing or refining interview and focus group guides, and selecting case study communities. More details of the pilot work will be presented in the next section.

3.6 The pilot work

This section presents some details of the pilot work. One critical factor in determining the quality of collected data from the interviews is that the interviewer is required to understand the basic context of the city as well as the places where interviewees lived; and in the meantime, needs to decide how to structure the investigation in order to make participants engage fully in the topics. Moreover, it was necessary to select the case communities and other urban public places for further deeper investigation.

To do so, the researcher carried out a pilot study in the city (from late August to early October 2016), including visits and observations to public spaces in the downtown area and 21 neighbourhoods, to collect preliminary data on the general situation of the urban built environment, as well as for the selection of case communities. The development of the selection strategy, and the process and results of selection are presented in section 3.8. In

addition, the researcher undertook short interviews with older people (a total of seven, see Table 3.2) living in different areas across the city that he encountered randomly in these places. An additional five older people were interviewed at the U3A, and another two participants were met in the street. The topics of the pilot interviews were quite broad, not necessarily focused on place-related issues, but also included more about people's life experiences and personal points of view on social issues.

Table 3.2 Sampling table of interviewees of pilot work

Interviewees of pilot work	Age	Community of residence	Location of interview	Interview duration (mins)
Ms. A	65	Shuang-jing	The University of the Third Age	10
Ms. B	64	Wu-yue		15
Ms. C	68	Xi-xiao-nan-lu		10
Ms. D	71	Xi-lin		10
Mr. M	78	Xi-lin		15
Ms. Q	60	Long-shi	Ji-xian Road	10
Mr. K	63	Lin-hu	Fang-zhi-nan Road	10

The pilot study was an early opportunity to test out not only the research questions and the issues, but also the style of approaching and communicating with older people. In this way, the researcher could develop confidence and skills in conducting interviews as well as focus groups in later stages of the fieldwork. The pilot work enabled the researcher to further develop the interview and focus group guide, in particular, through talking with the seven older people, questions were refined. For instance, the older people's response showed that they did not know the concept of "active ageing", thus, "a good later life" was used to replace it to make the purpose of the study and the content of interviews and focus groups more understandable. Moreover, these older people also provided some useful information that was beneficial to the study. The responses of the older people to the informal encounters were not confined to their own communities; instead, some of them expressed their opinions on a wider range of issues. For example, some of them suggested that the U3A be visited because it had many older students, but lacked sufficient places. Thus, the researcher visited the U3A and later made this place a case study site.

Findings from pilot observation helped the researcher better understand local older people's

love of outdoor activities: a large number of older people were frequently observed engaging in activities in a range of urban spaces, including the downtown area and communities. In addition, the pilot observation discovered that more older people did outdoor activities in afternoon, i.e. from 2 pm to 6 pm, than other time in a day. These findings helped the researcher refine the fieldwork schedule by focusing the observation time into afternoons. Furthermore, through observation across the urban area, the researcher determined the urban environment was being improved through a government-led improvement project across the city, and some communities were experiencing changes as a result. In light of this, the researcher decided to conduct two further data collection periods to capture the implications of the change in living environment for the city's age-friendliness and older people's lives.

This section discussed the pilot work. That through interviews and observations led to refinement of research tools, and added useful contextual data. One major task of the pilot work was to look for suitable case study communities. To enable the reader to appreciate the role of communities the chapter outlines the meaning of these in the Chinese context.

3.7 Concept of "community" ("*shequ*") and "neighbourhood" ("*xiaoqu*") in the Chinese context

A large proportion of the research discussion focuses on community. In Chinese, community is called *shequ* (Chinese: "社区"). In most cases, "community" in English and *shequ* in Chinese share the same concept. Thus, for the sake of discussion and understanding by Western readers, the research adopted "community" when it refers to "*shequ*". Nonetheless, *shequ* in the contemporary Chinese context has been given some specific characteristics, which need to be expounded.

In the Western context, the term "community" originates from sociology. Nowadays, although community has been based on the geographic concept of "neighbourhood", it still highlights elements internal to the local residents such as relationships, culture and lifestyle. Thus, community in Western societies may be psychologically or culturally separated; for example, some communities are identified to "come together to block the residential entry of ethnic minority groups" (Sampson, 2004, p.112).

However, in today's Chinese context, the term *shequ* seems to weaken the internal elements of residents, but has some other specific meanings. First, although Chinese communities are not authoritative bodies, they have special functions in governance. In China, as Figure 3.1 shows, a city is divided into several districts, and each district can be further divided into several sub-districts. For instance, the city of Anqing is composed of three districts: Ying-jiang, Da-guan and Yi-xiu, and 15 sub-districts. Both district and sub-district are authoritative bodies. The government of the sub-district is the lowest level in the complex governmental system of China; in other words, there is no government below the level of sub-district. In Chinese, the sub-district is called *Jie-dao* (Chinese: "街道"), which literally means "street", and the authoritative body is called the "street office" (Audin and Throssell, 2015).

The community is supervised indirectly by the street office, but nonetheless, each community also has its own residents' committee, which is an organisation for self-government at grassroots level in order to ensure local neighbourhood monitoring (Audin and Throssell, 2015).The committee members are traditionally made up of "activist" residents who demonstrate dynamic support for maintaining moral and political order in the community (Whyte and Parish, 1984).

In addition, Chinese governments more often relate the concept of *shequ* to community services and construction (Li and Lei, 2013). For instance, each community has a service centre that provides assistance, including listening, mediation and personal services (Audin and Throssell, 2015).

According to the regulation of government, the area of a community or *shequ* is determined by the population that the local residents' committee administers. But, from the geographical perspective, a community covers several relatively independent neighbourhoods, which are called *xiaoqu* in Chinese ("小区"). After referencing related literature and taking into account the nature of *xiaoqu*, in order to make Western readers understand its concept more easily, the researcher adopted "neighbourhood" when it referred to *xiaoqu*.

In a sense, the so-called *xiaoqu* can be interpreted as a smaller community, in which the pattern of dwelling units, outdoor space and living environment tends to be unified and different from those of surrounding counterparts. For instance, most new, modern

neighbourhoods have gates and walls; however, in contrast, their old counterparts tend to be open, and it is common to see a community with a mix of new and old neighbourhoods.

This section discussed the difference in concepts between "community" or "shequ" and "neighbourhood" or "xiaoqu" in Chinese context. In short, it can be identified that the concept of "community" in the Western context indicates a common culture or socio-economic status of local residents, while in the Chinese context its counterpart is characterised by administration, services and the geographic concept. In order to make related concepts more understandable and avoid confusions, in this research "neighbourhood" could be viewed as a smaller "community".
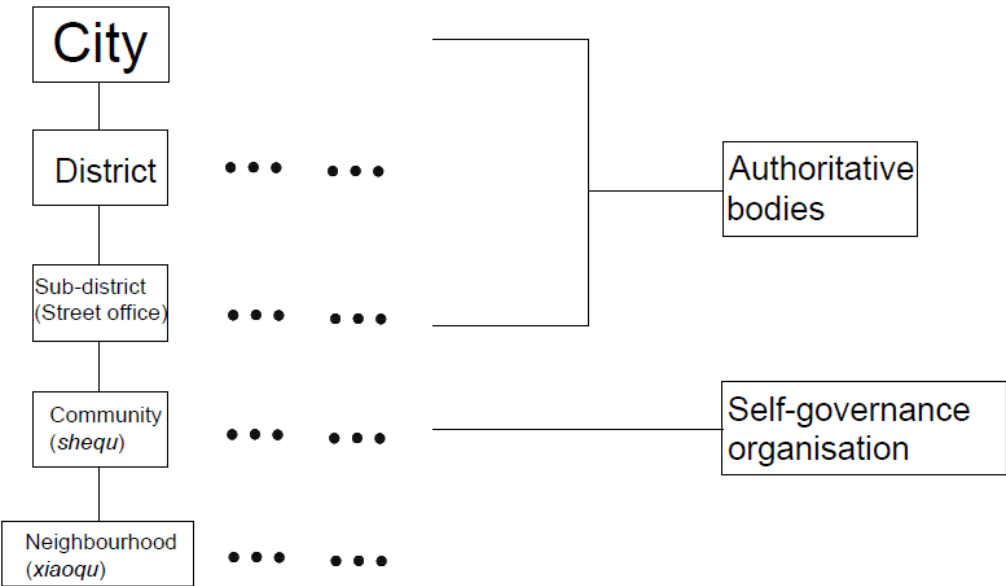
Figure 3.1 Governmental system of Chinese city

(Source: author)

3.8 Selection of the case study communities

In its series of related policies, WHO highlights the critical role of community in delivering older people's active ageing (for instance, see *Active Ageing: A Policy Framework*) and shaping the age-friendly city (for example, see *Global Age-friendly Cities: A Guide*). Hence,

the present study selected communities as case studies. In China the neighbourhood or *xiaoqu* is the basic residential unit of the community or *shequ* and, in most cases, a community comprises several neighbourhoods. In light of this, the researcher initially set out on the selection process by visiting neighbourhoods across the city. The process of selection involved three steps: selection of observation area and neighbourhoods, identification of neighbourhood characteristics, and data collection and process. Figure 3.2 shows the process of selection.

3.8.1 *Neighbourhood characteristics to be assessed*

The researcher reflected what characteristics could serve as the proxies for the quality of a community as well as the indicator of age-friendliness for older people's activities. Through reflection and reviewing the literature, a set of community characteristics were selected, which comprised the number of older people who were found undertaking activities, socio-economic status (SES) (Yen *et al.*, 2009; Mõttus *et al.*, 2012), house prices (Tse, 2002; Björklund and Klingborg, 2005; Kiefer, 2011; Ki and Jayantha, 2010; Torres *et al*., 2013), neighbourhood amenities (Zhou *et al*., 2013), and crime and security (Quine and Morrell, 2008).

With regard to neighbourhood amenities, the study selected four items as proxies for the quality of local amenities, because of their influence on older people's well-being. These amenities include green space (Shan, 2014; Byrne *et al.*, 2015; Pincetl and Gearin, 2005; Lo and Jim, 2010), pavement quality (Lavery *et al.*, 1996; Lord, 2006; Zamora *et al.*, 2008), access to public transport (NICE, 2008; Marmot *et al.*, 2010; Webb *et al*., 2012; Dahan-Oliel *et al*., 2010; Musselwhite *et al.*, 2015; Roper and Mulley, 1996), and recreation and leisure facilities (Toepoel, 2013; Eronen *et al.*, 2016; Crombie *et al.*, 2004).
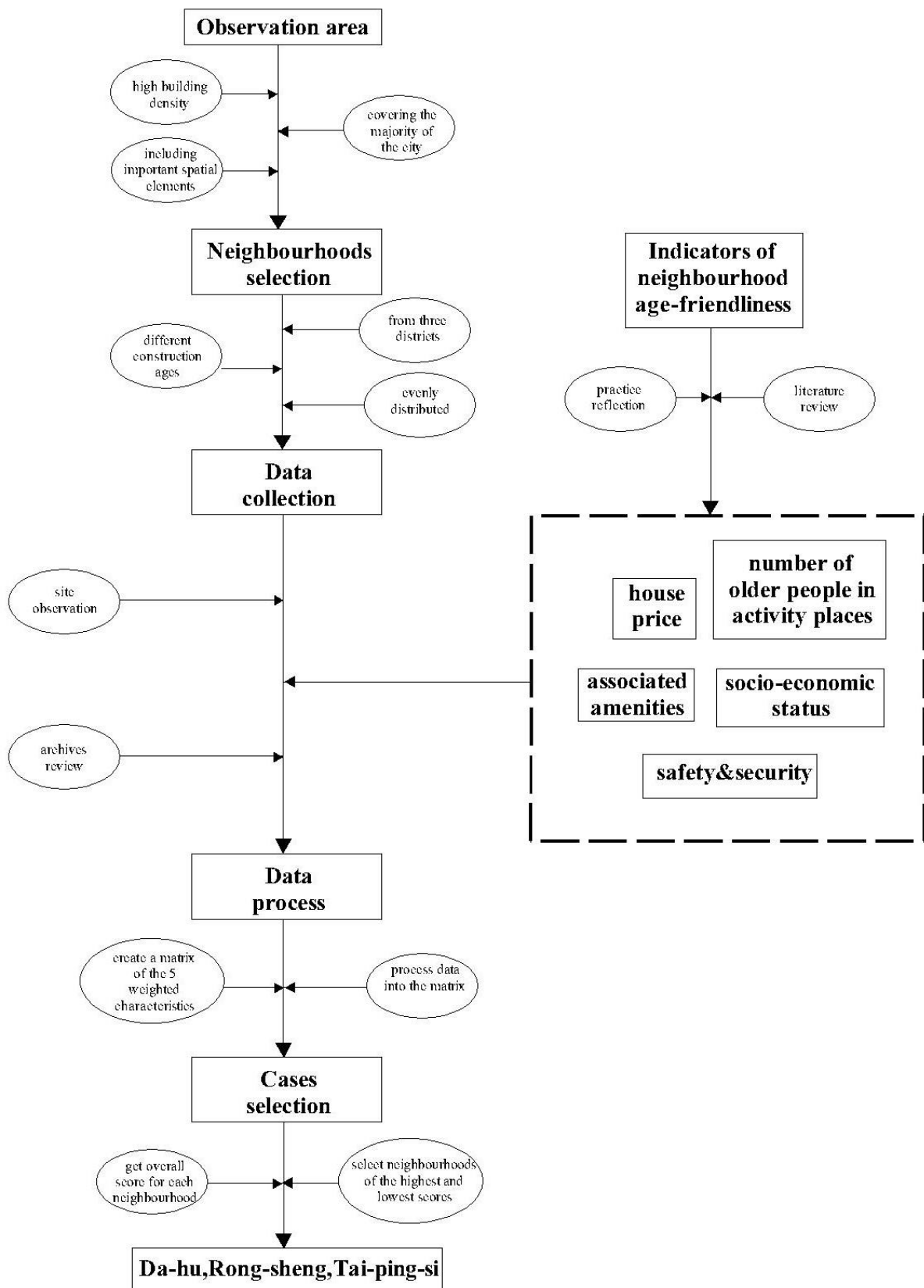
Figure 3.2 Flow diagram of neighbourhood selection

3.8.2 *Observation area and neighbourhoods*

The research selected a region of high building density as the observation area, for it also indicates a higher population density. In addition, this area covers the majority of the city, including the city centre and other important spatial elements, such as squares, parks, the riverbank and large lakes. These elements constitute a supporting context for older people's activity places.

In order to acquire richer data, two strategies were carried out to seek wider variations of neighbourhoods to observe. The first was to look for neighbourhoods of various construction ages, because with rapid social and economic development, especially after the housing reform implemented in the early 1990s, there have been gaps in outdoor spaces and associate facilities of neighbourhoods of different ages. The second strategy was to select neighbourhoods from the three districts of the city, and in the meantime, these neighbourhoods were distributed evenly across the area under observation. This form of spatial distribution might be beneficial for the collection of diverse data regarding the SES of residents, as well as spatial features in different parts of the city.

Based on these strategies, 21 accessible neighbourhoods were selected for observation. More specifically, these included 11 old neighbourhoods, which were built more than 20 years ago and ten new ones, whose construction was completed after 2006. The observation work started in late August 2016 and ended in early October 2016. These 21 neighbourhoods' location is marked on the map below as shown (Figure 3.3).
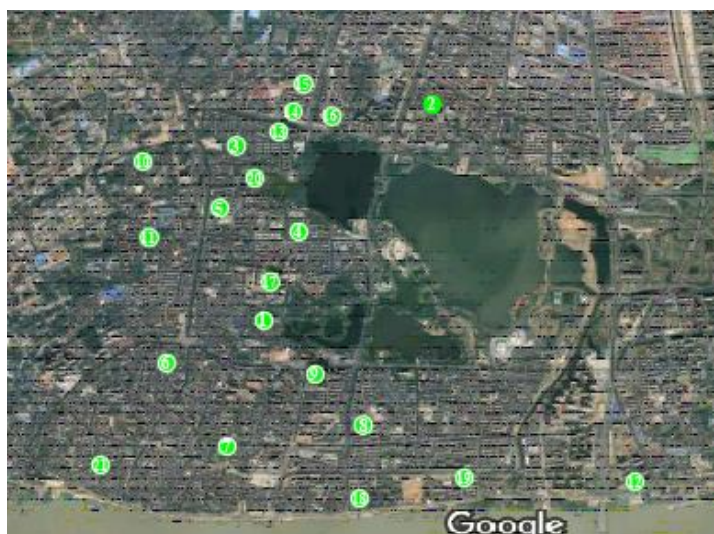
Figure 3.3 The 21 observation neighbourhoods (Source: Google Maps)

3.8.3 *Data process and selection results*

Drawing upon the data collected, the researcher created a matrix that showed each neighbourhood's characteristics. The selected five characteristics were weighted, drawing on their importance to the research, to calculate the overall weighted score. Thus, looking at the neighbourhoods' scores, the researcher was able to select three contrasting communities as case studies.

The data collected on the five aspects of neighbourhoods was further processed into the form of scores in order to show each neighbourhood's status in a more direct and comparable way. The researcher gave unequal weightings to these aspects based on their different influences. More specifically, the number of older people who were found undertaking activities in their communities was the most influential factor, because it not only showed directly the relationship between outdoor space and local older residents, but also indicated whether richer data about older people's experiences in these places could be obtained. The condition of the associated amenities was a very important indicator of quality of community, and in the meantime, these amenities could increase age-friendliness, for they supported older people in ageing in place. The remaining three aspects, i.e. SES, house prices, and safety and security, had a less direct relationship with ageing in place, but might serve as indicators of quality of life of local older people. The results of the selection are set out in Table 3.3.[13]

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[13] In the table, the source of "construction age" includes observation of completion nameplates of buildings and talking to local residents who had lived in these neighbourhoods for many years; the source of "older people" is an observation of the number of older people who were undertaking outdoor activities; the source of "Socio-economic status" includes observation of people's dress, the range and condition of private cars, and surrounding commercial facilities, as well as reviewing official statistical data on low-income families in each neighbourhood; the data for "house price" was collected from property website www.ganji.com; the data for "associated amenities" was collected by observation of the conditions of green space, pavements, surrounding bus stops and leisure facilities; data on "safety and security" was from the observation of neighbourhoods' gates, security surveillance systems and access control systems, as well as observation and experience of neighbourhood security management.

Table 3.3. Neighbourhood Scores (Source: author)

No.	Neighbourhood	Construction Age	Older People (40%)	Socio-economic Status (SES) (10%)	House Price (10%)	Associated Amenities (30%)	Safety and Security (10%)	Overall Weighted Score
1	Ling-hu Xin-cun (菱湖新村)	1980s	100	20	20	75	70	73.5
2	Ling-bei Xin-cun (west) (菱北新村西区)	1993	80	80	40	75	75	74
3	Hua-ting Xin-cun (华亭新村)	1980s	100	20	20	45	40	61.5
4	Bin-hu-yuan (滨湖苑)	1990s	60	60	40	50	50	54
5	Fang-zhi Xin-cun (west) (纺织新村西区)	1980s	80	40	40	60	70	65
6	Huang-hua Ting (黄花亭)	1995	0	40	40	40	50	25
7	Tian-zhu-tang Xiang (天主堂巷)	1980s	60	40	40	40	55	49.5
8	Kang-ju-li (康居里)	2006	0	80	60	55	75	38
9	Yu-jing Guo-ji (御景国际)	2014	0	100	100	80	95	53.5
10	Shi-hua Yi-cun (石化一村)	1970s	80	20	20	40	40	52
11	Shi-hua Er-cun (石化二村)	1970s	60	40	20	50	50	50
12	Jiang-pan Shang-cheng (江畔尚城)	2014	20	80	80	80	85	56.5
13	Zuo-an Ming-ju (左岸名居)	2008	40	100	60	65	90	60.5
14	Da-hu Chun-tian (大湖春天)	2007	20	100	60	70	80	53
15	Jing-hai Hua-yuan (晶海花园)	2011	40	60	40	75	80	56.5
16	Da-hu Wang-chao (大湖王朝)	2009	0	60	40	65	85	40.5
17	Hua-mao 1958 (华茂 1958)	2014	0	100	80	80	100	52
18	Yang-guang Er-qi (阳光二期)	2012	0	100	80	85	100	53.5
19	Xie-shui Wan (谐水湾)	2008	0	80	80	60	75	41.5
20	Da-hu Xin-cun (old north) (大湖新村老北区)	1980s	100	80	60	75	75	84
21	Tai-ping-si Jie (太平寺街)	1980s	30	15	35	40	40	32.5

The findings identified a significant gap between old and newly built neighbourhoods. Most new and modern neighbourhoods[14] were gated residential areas with walls and security staff, and these neighbourhoods had their own outdoor activity space that was not available to people living outside. These neighbourhoods tended to have multi-storey apartment blocks of 7 to 20 storeys, with lift services, and building density was relatively low. In contrast, old neighbourhoods tended to be open, and the majority of them did not have sufficient outdoor space; thus, these neighbourhoods had to share community facilities. The apartment blocks in these neighbourhoods are less than six storeys high, provided with stairs only, and most of them had a higher building density. In addition, the researcher identified that older people were more likely to be the residents of the old neighbourhoods; hence, the extent to which the transformation projects could address older people's needs required further investigation.

The results showed that Da-hu Xin-cun (old north) (大湖新村老北区) had the highest overall weighted score, while Huang-hua Ting (黄花亭) and Tai-ping-si Jie (太平寺街) had the lowest scores. Although the three places were categorised as old neighbourhoods, a significant gap between Da-hu Xin-cun and the other two was identified. For example, although they all had a large number of ageing residents, Da-hu Xin-cun was observed to have many more older people engaging in outdoor activities than the other two. Further investigation determined that older people made up the majority of the residential population of the communities that the three neighbourhoods belonged to, which were Da-hu Community, Rong-sheng Community and Tai-ping-si Community respectively. Therefore, in order to enlarge the focus from neighbourhood to the whole scale of the community to collect more data, the three communities were selected for in-depth research.

This section presented the process of selection of the three case study communities, which resulted in the communities of Da-hu, Rong-sheng and Tai-ping-si being selected as cases.

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[14] Based on construction age, the *xiaoqu* of Anqing may be divided into two groups: the old *xiaoqu* and the new or modern *xiaoqu*. The so-called "old *xiaoqu*" in the research refers to those built before 2000; most of them were built in the 1970s or 1980s. Before the housing reform in 1994, most housing in China was built and assigned by the government or state-owned enterprises. The "new *xiaoqu*" were built after 2000 when the policy of welfare housing was abolished and the real estate market started to flourish.

3.9 Justification of methods

The research employed qualitative methods to collect data in fieldwork, including semi-structured interviews, focus groups as well as non-participant and participant observations. In addition, photography was also used for illustrative purpose. This section will discuss why these methods were selected through a reflection on the context of this particular thesis and its research questions.

3.9.1 *Justification on qualitative research design*

In the previous discussion on ontology and epistemology, it has been identified that the research set out to contribute to scholarship by exploring China's social and physical environments' role in supporting active ageing, with a special focus on older people's lived experience and perception, and then developing a Chinese version of age-friendly cities and communities checklists based on the WHO's age-friendly framework.

Firstly, as literature and the WHO's checklists indicate, there are many aspects of social and physical environments that could influence active ageing. Some of them, for instance, the public attitude and community management, are difficult to be collected in quantitative methods. In contrast, qualitative methods could "broaden and/or deepen our understanding of how things came to be the way they are in our social world" (Hancock *et al*., 2007, p.4). The qualitative methods have been used widely in studies of environmental impacts on different social groups, for instance children (Lawlor *et al*., 2006) and adolescents (Hecke *et al*., 2016). In particular, findings of research conducted by scholars, such as Mcghee (1984), Mahmood *et al*. (2012), Førsund and Ytrehus (2018), Moran *et al*. (2014), Yoo and Kim (2017) and Miltona *et al*. (2015), have proven the feasibility of qualitative research design in exploring the influence of social and physical environments on older people's activity and well-being.

Secondly, qualitative methods produce descriptions of social life (Yates, 2004), thus, it is argued that the qualitative approach is particularly appropriate in answering research questions that explore how people experience something or what their views are (Hancock *et al*., 2007). Although quantitative methods, for example, questionnaires, might be helpful in identifying some specific needs of older people, there exists a larger range of domains that can not be described by statistical measures. In particular, the deeper link between older

people and their places require reflection on the data drawn from lived experience, which is collected by qualitative methods, such as interviews and focus group.

Thirdly, the WHO's age-friendly cities checklists provide descriptive standards of creating and assessing age-friendly urban environments. Therefore, in line with it, the research needs to use qualitative methods, for instance, observation, to capitalize on the WHO's guideline and checklists to evaluate the case study city's age-friendliness, then based on collected qualitative data from social and physical environment as well as stakeholders' points of view to develop a Chinese version of age-friendly checklists.

3.9.2 *Rationale for semi-structured interview*

Older people are the ultimate experts on their lives (WHO, 2007). Their perceptions, including subjective assessments and points of view, should be an important source of data and evaluation reference. In particular, older people's lived experience is important to the exploration on their relationship to places, because by engaging in activities, they develop a subjective perception of place (Dovey, 1991), in which intention and experience will shape their sense of place (Relph, 1976; Cutchin, 2005; Spaul and Hockey, 2011). In other words, older people's lived experience not only demonstrates their activity patterns, but also provides evidence of how these places support their activities and daily lives, how these places are age-friendly and what the meaning of these places is to older people.

Therefore, it is needless to say, interview should be selected as a major investigation method, for it is a means of deep understanding the meaning of people's motivation, lived experiences and perceptions (Seidman, 1991; Johnstone, 2017). This method has been used widely in the exploration of older people's life in place, such as research on older people's place attachment (Wiles *et al*., 2009); the study of social exclusion among older people of deprived neighbourhoods (Abbott and Sapsford, 2005) and investigations on ageing in place (Wiles *et al*., 2012). Apart from older people, other stakeholders, such as community leaders and planners, are playing an important role in supporting older people to age well in place. Hence, their viewpoints are another critical material that needs to be considered in this thesis. In general, the data collected through interviews with stakeholders, including older people, community leaders, urban planners and planning educators, will make multiple-contribution

to the research by collecting data on older people's experience of using outdoor space and perceptions of its age-friendliness for the Research question 1 and the Research question 2, as well as by offering the answers to research questions about place's role in supporting older people's social connections (Research question 3) and planning's position in delivering well-being for older people (Research question 4).

Compared with structured interviews, semi-structured interviews, which were employed in this thesis, create a semi-enclosed space (Lundgren, 2012). The reason for selecting semi-structured interviews depends on the reflection on two issues related to the context of this thesis. First, because of the different lived experience and the huge age gap, before conducting interviews, the research was unable to predict exactly what issues or needs that older people had in common. Second, in a developing city ageing individuals' living environment varies from one community to another. Furthermore, due to rapid population ageing and changes taking place in social and economic domains, the gap between older people's lifestyles in China is growing. All these factors contribute to diverse demands made upon needs of outdoor space and understandings of what an age-friendly place should be. Therefore, the semi-structured interviews provide a more flexible instrument that can adjust to different situations, thereby stimulating participants' engagement.

3.9.3 *Rationale for focus group*

The focus group, where groups of people gather together to give their opinions on a topic in a comfortable and free environment, is another useful method for collecting qualitative data based on group interaction aside from the one-to-one interview (Stewart and Shamdasani, 1990; Ho, 2006; Johnstone, 2017). Compared with individual interviews, focus groups are able to offer a link between the individual story and the cohort-wide experience of being of that age and social group in the specific context (Chatrakul Na Ayudhya, Smithson and Lewis, 2014). Data collected by focus group is produced from group interactions (Johnstone, 2017), and it is more than the sum of individuals' response (Lederman, 1990), because participant's responses are built upon each other (Stewart and Shamdasani, 1990). Despite a series of differences, focus groups may also be seen as a form of "group in-depth interviewing"; thus, focus groups should have "focuses", in other words, certain topics or objects, and moderators who conduct focus groups must ensure the discussion addresses those

topics (Yates, 2004).

Related research conducted in Taiwan indicates that older Chinese in Taiwan often shy away from expressing their individual needs due to cultural influences, in particular the idea of collectivism that precludes the notion of the autonomous individual (Chao and Huang, 2016). In mainland China, collectivism might be more influential on older people who experienced the founding of the People's Republic, the Great Leap Forward and the Cultural Revolution, that were intense and far reaching demonstrations of Communism. Focus groups can create an atmosphere of trust and shared understanding, encouraging older people to speak out with more confidence.

A case study of Hong Kong identifies that older people's active involvement in neighbourhood affairs could be attributed to Chinese culture and deep-rooted networks of communities (Chan and Cao, 2015). Based on the researcher's own experience and observation in China, older people tend to make frequent use of outdoor space, thus, it is reasonable to predict that older Chinese would be interested in the topic of community and the use of outdoor space. The focus group method, therefore, offers an opportunity to stimulate a group of older people to talk more about these topics. Compared with one to one interviews guided by the researcher, focus group provides more freedom for older participants and discussion between older people who live in the same community or have shared interests.

Compared with semi-structured interviews, questions raised in focus group tend to be relate to bigger topics that are of common interests to participants who have shared experience. Thus, data collected from focus groups is helpful in mainly acquiring older people's understanding of later lives and active ageing (Research question 1) and assessing the age-friendliness of the built environment of the city based on their lived experience and perceptions regarding the urban and community issues (Research question 2).

3.9.4 *Rationale for observation*

Observation, which is viewed as an very effective approach amongst collection techniques of qualitative data (Murphy and Dingwall, 2007), has become a widely used method in the social sciences, especially in the studies of people's activities in public spaces (Angrosino, 2005;

Kellaher, 2007; Southwell, 2007; Clark *et al.*, 2009; Gehl and Svarre, 2013). Gehl and Svarre (2013) point out that a "core tenet of public life studies is to test the actual conditions in the city by observing and experiencing them first hand and then considering which elements interact and which do not" (p.30), and in urban public life studies, observational investigation adds "a dimension that interviews with people about the reason for their being in the city could never capture" (p.61). In other words, observation enables comparison between stated and actual actions to identify more issues (Endacott, 2008). This method helps to better understand the needs of place users and how urban spaces are used (Gehl and Svarre, 2013), and has also been used in a growing number of social studies of ageing in place, such as place attachment in later life (Degnen, 2016), and disabled older people's community activities (Davidson, Worrall and Hickson, 2003).

Observation is an indispensable method in this research. In addition to verifying some data collected through interviews and focus groups, this method makes a unique and important contribution to the study. First, observation serves as the major approach to conducting neighbourhood selection. Second, this method provides direct and objective data on how older people use outdoor spaces, contributing to the discussion for the Research question 1. Third, observation is the major source of data on how the city's built environment age-friendly is, which will benefit answering the Research question 2.

In this thesis, the main observation objects are place and older people (especially their activities), and the observation approach can be further divided into non-participant and participant methods. The non-participant observation was carried out because, in general, when conducting observation of older people's daily life and activities in their places, the researcher must act as a neutral observer, who is "an invisible non-participant who takes in the big picture without taking part in the event" (Gehl and Svarre, 2013, p.5). This approach is especially efficient in collecting data on older people's activity patterns in places, in particular, where there are several groups of older people doing different activities simultaneously in the same space, for the non-participant way enables the researcher to observe details of older people's activity undisturbed.

The reason for the use of participant observation is that this method forces researchers to question their theoretical presuppositions about the world and to "understand social life anew

through our engagement with distant others and their social relations" (Shah, 2017, p.56). In short, it is "a form of production of knowledge through being and action" (Shah, 2017, p.45), and it may contribute to the development of theory by "providing understanding of participants' behaviours and the contexts that influence their behaviours" (Dahlke, Hall and Phinney, 2015, p.1117). In particular, through participant observation, the researcher may be able to better experience an individual's link with others as well as the place, which is beneficial to a deeper understanding of how these places support older people's social connections (Research question 3). Moreover, participant observation is necessary when exploring some details about the age-friendliness of the social and physical environments, for instance, in investigating the quality of the bus service, the research was required to take buses as an ordinary passenger to observe the coach environment and how older passengers are treated on bus.

3.9.5 *The use of photography: For illustrative purposes*

The thesis also presents photographs taken during the fieldwork. Basically, these photographs illustrate the observations but photographs are also presented to emphasise (or contradict) some of the points being made in relation to emerging themes.

The use of photography in the social sciences has a long history (Langmann and Pick, 2018), and it is an important tool to learn about the contextualised lives of individuals (Miller, 2015). Hence, in this research, it was necessary to show some of photographs of older people's outdoor lives in the urban context. Observations are often accompanied by photo documentation, and photography can be viewed as an indirect observation, because by later study of photographs or film, "it is possible to identify new connections or to go into detail with otherwise complex city situations that are difficult to fully comprehend with the naked eye" (Gehl and Svarre, 2013, p.31). In short, using visual method materials will help the researcher in developing rapport and communication, gaining orientation, and improving analysis (Gold, 2007). In exploring place-related theories, Pink (2009) summarises that an "event" or "occurrence" is central to place or place-making, and the main task for ethnographer is to consider how to be emplaced or entangled in the constitution of place in order to understand other people's manner of being in that place. She further points out that researchers can better understand how others remember and imagine, which might not be

articulated verbally, "by aligning our bodies, rhythms, tastes, ways of seeing and more with theirs, begin to become involved in making places that are similar to theirs and thus feel that we are similarly emplaced" (p.40).

Furthermore, those photos of the current condition of places and older people's activities, together with related written descriptions, will provide more intuitive evidence for future research that explores the same case study area. Apart from Anqing, the built environments of the majority of the urban areas of China are experiencing rapid transformation. Therefore, in this sense, these visual records of current places and older people's activities will serve as historical documents, which is helpful in investigating the trajectory of age-friendly cities' development in this country. For instance, Rong-sheng Community was experiencing transformation; therefore, the researcher took photos of an outdoor gym that used to be green space to show the details of the transformation project led by the local government.

In this section, justification on qualitative methods used to collect data in this study was presented. In general, the reason for employing a qualitative research design was that compared with quantitative approaches, qualitative methods were particularly appropriate in presenting a wide range of aspects of the social and physical environments, in exploring older people's lived experience and points of view, and in using the descriptive standards of age-friendly environments of the WHO's age-friendly cities checklists.

Semi-structured interviews provide a more flexible synopsis that could swiftly adjust to different situations, thereby stimulating participants' interests and willing to talk more. Focus group could create a collective atmosphere and provide more freedom, encouraging older people to speak out with more confidence. Observation, including participant and non-participant, contributes to verification of some data collected through interviews and focus groups, and was the major approach to conducting neighbourhoods selection, collecting data on how older people use outdoor spaces and the extent of age-friendliness of the city.

3.10 The interview and focus group

This section shows the process of conducting the methods of interview and focus group. The researcher needed to develop interview and focus group guides; second, produce reasonable and practical strategies to recruit informants, such as older people and planning professionals.

All these steps will be addressed in this section.

3.10.1 *The development of interview and focus group guides*

Basically, the interview and focus group guides were developed based on the proposed research questions. The process is that (as Figure 3.4 shows): first, draw sub-concerns from each research questions; second, develop topics according to the emerged sub-concerns; third, these topics were further selected and processed into specific questions based on each interview or focus group's purpose and its participants. For instance, the interviews and focus groups with older people of the case study communities involved questions about their lived experience in the city and issues of the community, while interviews conducted in the U3A focused on the experience of studying there.

Research Question 1 mainly involved two sub-concerns: older people's use of outdoor space, and its relation to active ageing in Chinese context. To address the first concern, the researcher intended to ask older people questions about their frequency of getting about and patterns of outdoor activity, thus these questions included "Can I ask you how often you get out of the house?", "In a typical week where do you go?" and "Can you tell me what you do there?". To address the second concern, it was necessary to re-examine meaning of "active ageing" in Chinese context, given that it was based on research in Western countries. During the pilot work the researcher identified that none of older people contacted knew "active ageing", thus, "a good later life" was used in interviews to produce a more common question: "What do you think is important to make a good life for an older person?" Furthermore, in order to help understand the relationship between active ageing and older people's use of outdoor space questions about the benefits or purposes of doing activities were generated, such as "What are your purposes of doing outdoor activities?" and "What do you get from engaging in activities in outdoor space?"

Research Question 2 addressed two issues: first, what was the age-friendliness of the current built environment of the city?; second, how might urban settings become more age-friendly in the future? To address the first issue, questions, such as "What places or aspects of your neighbourhood are not as good as you expect?" and "From the perspective of older people, what aspects of the city need to be improved?", were produced to collect data on older people's perceptions on the age-friendliness of their living environment. When conducting the

pilot work in Anqing, through observation as well as other sources of information, such as the government website and local residents, the researcher found out that a government-led improvement project of the urban environment was being carried out across the city. Hence, in light of this, another question was created to access older people's perceptions on the current changes in the built environment: "After the improvement project, do you think there are any changes in the city? If there are, are you satisfied with these changes?"

Research Question 3 reflected on the role of place in supporting older people's social connections, including the place's accessibility and characteristics that promoted older people's socialization. Therefore, interview questions, such as "Can you get to the places you want to go to?", "When you are doing activities outdoors, do you meet other people?" and "What social benefits do you get from these activities?"

Research Question 4 focused on the role of planning in making urban outdoor space more age-friendly and more supportive of active ageing. To deepen the analysis on this issue, the researcher needed to collect data on the perceptions and work experience of planning professionals, including urban planners and planning educators. In the interviews with urban planners, proposed questions including "Drawing on the preliminary findings of the fieldwork, which findings do you think could be most easily implemented and why?", "What do you feel are the obstacles to implementation?" and "Did you take into account population ageing when setting out local development policies and plans before?" The purpose of conducting interviews with planning educators was to find out to what extent ageing issues were taught in planning courses and in what ways these could be better integrated into the planning education. Thus, in the interviews with planning educators, the researcher proposed a series of related questions, such as "To what extent do you address ageing issues in the education of planners?" and "Can you talk about how you might integrate ageing-related topics into planning education in the future?"
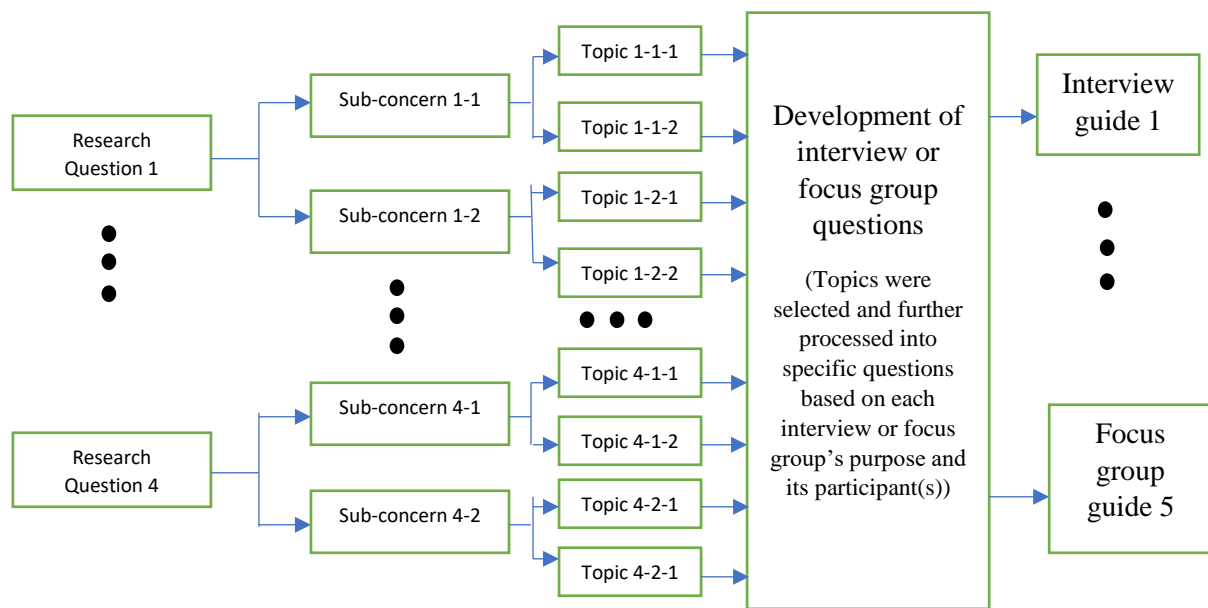
Figure 3.4 Developmental framework of interview and focus group guides

The basic structure of the interview and focus group guides for participant older people includes three steps: first, a brief introduction to the aim of this study and the purpose of this interview; second, some simple questions about each participant's basic personal information, such as age and household composition; third, asking a series of questions designed for this interview or focus group. These interview or focus group guides for older people are presented in Appendix A (interview within the case study communities), Appendix B (focus group within the case study communities), Appendix D (interview and focus group in the U3A) and Appendix E (focus group at karaoke of a shopping mall). In the interview and focus group guides for participant planning professionals (Appendix C), the first step is to make a brief introduction to the research's aim and the purpose of the interview or focus group; the second step is to show them some preliminary findings of the field work, with a focus of identified issues; the third step is to ask questions around their work experience and perceptions on these issues.

3.10.2 *Recruitment and sampling framework*

Older people

For the researcher, the biggest obstacle in recruiting participants, especially older people in case communities, was the lack of an extensive local social network. Fortunately, as a native of Anqing, the researcher could expand social connection through help from his parents, relatives and their friends. Using their extensive social networks, directors of the case communities and the U3A were contacted and agreed to take part in this study. The participation of these stakeholders was important because their points of view often play a decisive role at the level of implementation of action plans (Chao and Huang, 2016). In this research they also gave practical assistance through providing rooms for focus groups. However, the researcher did not ask them to provide much assistance in recruiting older people in their communities, because it has been identified that community leaders might influence the research process by indicating participants who obeyed these leaders' will (Sixsmith, Boneham and Goldring, 2003). Hence, the researcher looked for other people who could be more helpful to recruitment.

Literature indicates that traditional culture as well as form of social organization promote older Chinese's neighbourhood connection and involvement in community affairs (Chan and Cao, 2015). Community activists, of which are older residents dominate, play particular roles in supporting community management and development. Historical factors might contribute to the emergence of community activists. Until the mid-1980s, the work unit's socialist welfare system had always been the main body that offered housing, medical care, education, and arranged leisure time for urban workers (Friedmann, 2005), and this created strong linkages between people and community (Gilroy, 2012). Compared with younger generations, older people who experienced this organised life tend to be more concerned about community affairs. Taking Anqing for example, the city has more than 150,000 registered volunteers working in community service teams, and older people make up a relatively large portion of these (Zhu, 2016).

Therefore, community activists, such as community volunteers and residents' committee members, were important participants in interviews and focus groups, because first, they had more experience of participation, and could thus identify community issues; and second, these activists were more concerned about their communities' affairs. What is more important is

that, community activists contributed much to the recruitment work because of their extensive neighbourhood network, especially in old communities where older people, including the community activists themselves, who had lived there for decades made up the majority of resident population[15].

In this research, community activists in Da-hu, Rong-sheng and Tai-ping-si were all older people who had lived in these communities for nearly thirty years. In Da-hu, the researcher's parents helped in contacting the community activists, and a friend and family member helped in liaising with the community activists in Rong-sheng and Tai-ping-si, as well as community leaders. All contacted community activists agreed to take part in this research and they guided the researcher to look for other older residents who had lived in their communities for over twenty years and agreed to join interviews or/and focus groups. The contacted activist of Rong-sheng was also the leader of dance team of the community, thus, with the researcher's request, the older woman asked other available members of the interest group to join interviews and focus groups. Their participation in the research benefited findings by reflecting from a special perspective.

Apart from the case communities, older people's perceptions on other urban spaces also contributed to the discussion on the city's age-friendliness. For instance, the University for the Third Age (U3A) of Anqing was a special place that provided rich data for this study: the place offered a platform of learning and socialization for older people living in different communities across the city. Thus, observation in the U3A and interviews with its students enriched data on the relationship between place and older people and well-being in later life. To conduct interviews with the U3A's students and director, friends of the researcher's parents who were students there helped make introductions. Moreover, through family networks, the researcher managed to recruited more older people out of the three case communities for interviews and focus groups.

In total, 37 older people, including 19 men and 18 women, were interviewed, and five focus groups with 51 older people were held. These participants included community activists, interest group members and ordinary residents. More specifically, these participants aged from 60 to 82, and the average age of interviewees was 69. The majority of them lived with a partner (n=35), and only three of these participants lived with adult children as well. Basically, most of participants did not have any mobility requirements, but two older men,

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[15] The account of this will be presented in the later chapter.

one of Da-hu who was recovering from operation and the other of Tai-ping-si who had broken his leg, needed mobility aids.

With regard to the semi-structured interviews, these were conducted with 37 older people during the first round of fieldwork (August 2016–January 2017), the majority of these interviews were conducted with older residents living in the three case study communities (n=29), and another 8 in-depth interviews were carried out with older people, including 6 U3A students, who lived in other different communities across the city. The aim of these in-depth interviews was to find out individual life stories of the participants as well as their points of views on urban life, especially outdoor activities. In the five focus groups, three were conducted in the case communities during the first round of fieldwork. The other two focus groups were carried out in the U3A and a karaoke place in a shopping mall respectively during the second and third rounds of fieldwork (November and December 2017). The main topics of these two focus groups included experience of studying at the U3A and the feelings about the urban environment after the improvement project.

Urban planners and planning educators

Generally speaking, urban planners try to encourage development in line with national and local policies, creating or improving urban physical environment, in particular the urban outdoor spaces, to enhance well-being of the urban residents. An urban planner's major concern is on spatial planning at different levels, ranging from a larger urban agglomeration to a specific neighbourhood.

Building on the social network developed during his own planning educational experience, the researcher contacted seven urban planners in planning institutes and two planning educators in universities to interviews or focus groups. Six of the interviewed urban planners worked in the local planning institute of Anqing, and all these planners have rich experience of both planning practice and living in Anqing. The seventh was the chief planner of a planning institute based in Hefei, the provincial capital of Anhui.

In addition, two planning educators in universities agreed to join the researcher's interviews: Prof. L. has been teaching planning at the university for over 30 years since 1986, after he graduated from Tongji University in Shanghai, a leading Chinese university in the area of

planning; Prof. S. is associate professor of planning and a registered urban planner, and he has over 16 years of teaching experience.

The interviews with these professionals were carried out after collecting data from older people, and the reason for this was to acquire these professionals' responses to the issues identified in relation to older people's places. The researcher contacted the interviewees by telephone and told them about the purpose of the interviews as well as the main background of the ongoing study. A week prior to our interview, the researcher sent the outline of the interview questions to them by email, which made interviewees able to prepare, and made the interviews more efficient in a limited time.

3.10.3 *Sampling tables*

Information on participants, including age and household composition of older people, as well as each interview and focus group, including venue and duration, is showed in tables as follows. Table 3.4 and Table 3.5 present information on participant older people who participated in in-depth interviews and focus groups respectively; Table 3.6 gave information on interviewed planning professionals.

Table 3.4 Older people participated in the in-depth interviews

No.	Gender	Age	Name	Place of interview	community of residence	Duration (mins)	Household composition[16]	Note
1	Male	68	Mr. He	Participant's home	Da-hu	30	I	
2	Male	62	Mr. Xia	Participant's home		30	I	
3	Male	72	Mr. Chen	Participant's home		35	I	Community activist
4	Male	73	Mr. Ding	Lake park of Da-hu		30	I	Community activist
5	Male	62	Mr. Xie	Outdoor gym of Da-hu		25	I	
6	Male	80	Mr.Hu	Participant's home		60	I	Community activist; The participant needs mobility aids because he was recovering from operation
7	Male	70	Mr. Li	In front of kindergarten of Da-hu		25	I	
8	Female	64	Ms. Chen	Outdoor gym of Da-hu		25	I	
9	Female	75	Ms. Liu	Lake park of Da-hu		35	I	
10	Female	60	Ms. Jiao	Participant's home		20	I	
11	Male	62	Mr. Qiao	Participant's home		30	II	An older couple
12	Female	63	Mrs. Qiao	Participant's home				
13	Male	74	Mr. Zhang	Participant's home	Rong-sheng	35	I	
14	Male	60	Mr. Shu	Participant's home		25	III	
15	Female	65	Ms. Hu	Outdoor space of Rong-sheng		40	I	Community activist; Leader of dance team
16	Female	66	Ms. Chen	Outdoor space of Rong-sheng		25	I	Member of dance team
17	Female	62	Ms. Jiang	Participant's home		30	I	Member of dance team
18	Female	63	Ms. Qiu	Participant's home		25	I	Member of dance team

[16] Household composition: "I" represents living with a partner; "II" represents living with a partner and adult child or children; "III" represents living alone.

19	Female	63	Ms. Yang	Participant's home		35	I	Member of dance team
20	Female	65	Ms. Cheng	Participant's home		30	I	Member of dance team
21	Male	76	Mr. Jiao	Tai-ping-si Community	Tai-ping-si	30	I	
22	Male	72	Mr. Wang	Outdoor space of Tai-ping-si		35	I	An older couple; Mr. Wang is community activist
23	Female	69	Mrs. Wang	Outdoor space of Tai-ping-si				
24	Male	77	Mr. Pei	Participant's home		25	I	The participant needs mobility aids because he broke leg
25	Male	82	Mr. Lin	Participant's home		30	III	
26	Male	75	Mr. Wu	Participant's home		35	I	
27	Male	76	Mr. Yu	Participant's home		30	I	
28	Male	71	Mr. Jiang	Outdoor space of Tai-ping-si Community		25	I	
29	Male	74	Mr. Xiao	Participant's home		30	I	
30	Male	67	Mr. Zhang	U3A	Die-zi-tang	20	I	
31	Female	65	Ms. Ang		Shuang-jing	25	I	
32	Female	69	Ms. Bao		Wu-yue	25	I	
33	Female	66	Ms. Cai		Xi-xiao-nan-lu	20	I	
34	Male	78	Mr. Ma		Xi-lin	40	I	
35	Female	71	Ms. Ding		Xi-lin	30	I	
36	Male	62	Mr. Ke	A street near to Ling-hu park	Lin-hu	25	I	
37	Female	60	Ms. Qiao	Participant's home	Long-shi	30	II	

Table 3.5 older people participated in focus groups

Place of focus group	participants	age	Community of residence
The researcher's home, Da-hu (10 participants)	Mr. He	68	Da-hu
	Mr. Xia	62	
	Mr. Chen	72	
	Mr. Ding	73	
	Mr. Xie	62	
	Ms. Chen	64	
	Ms. Liu	75	
	Ms. Jiao	60	
	Mr. Qiao	62	
	Mrs. Qiao	63	
Meeting room of community service station of Rong-sheng (8 participants)	Mr. Zhang	74	Rong-sheng
	Mr. Shu	60	
	Ms. Hu	65	
	Ms. Chen	66	
	Ms. Jiang	62	
	Ms. Qiu	63	
	Ms. Yang	63	
	Ms. Cheng	65	
Meeting room of community service station of Tai-ping-si (10 participants)	Mr. Jiao	76	Tai-ping-si
	Mr. Wang	72	
	Mrs. Wang	69	
	Mr. Pei	77	
	Mr. Lin	82	
	Mr. Wu	75	
	Mr. Yu	76	
	Mr. Jiang	71	
	Mr. Xiao	74	
	Mr. Zhang	60	
A classroom of the U3A of Anqing (15 participants)	Mr. Zhao	65	Yi-yuan
	Ms. An	66	Hu-xin
	Ms. Bi	75	Jin-sheng
	Ms. Cao	69	Bin-jiang-yuan
	Ms. Deng	70	Gao-hua
	Ms. Li	68	Gao-hua
	Mr. Zhuang	72	Hua-mao
	Mr. Peng	65	La-shu-yuan
	Mr. Hua	63	Da-guan-ting
	Ms. Gong	67	Da-guan-ting
	Mr. Yang	66	Xian-feng
	Ms. Shi	74	Kang-xi-he
	Ms. Fang	70	Shuang-jin
	Ms. Lei	62	Wu-yue
	Mr. Xuan	68	Tian-hou-gong
A karaoke of a shopping mall (8 participants)	Ms. Ai	60	Si-zhao-yuan
	Ms. Bai	61	Da-guan-ting
	Ms. Chen	63	Pao-ying-shan
	Ms. Dong	62	Shu-xiang
	Mr. Wan	63	Shu-xiang
	Mr. Hong	61	Qian-pai-lou
	Ms. Ren	62	Shuang-lian-si
	Ms. Sun	62	Da-guan-ting

Table 3.6 Planning professionals participated in the research

Name	Professional identity	Affiliation	Form of data collection(duration)
Prof. L.	Planning educator	An university in Hefei, Anhui	Interview (60 mins)
Prof. S.	Planning educator	An university in Suqian, Jiangsu	Interview (60 mins)
Ms. Wang	Urban planner	A planning institute in Hefei, Anhui	Interview (60 mins)
Mr. Xiao		Planning institute of Anqing	Interview (60 mins)
Mr. Wang			Focus group (110mins)
Ms. Fang			
Mr. Cai			
Ms. Qin			
Mr. Xu			

This section focused on two major concerns of the methods of interview and focus group, i.e., how to develop interview and focus group guides and how to recruit participants. The interview and focus group guides were developed based on the proposed research questions, by identifying relevant topics through reflecting on sub-concerns of these research questions. Older people were key participants in this study, and with regard to the recruitment of these informants, the researcher and his family's social networks facilitated the contact with community activists, who contributed to guiding the researcher to contact and recruit more older people in their communities.

3.11 The observation

This section states details of using non-participant and participant observations during the fieldwork. Two questions in relation to the conduct of observation are addressed: first, what places were observed and the experience of observations; second, how observational notes were taken.

3.11.1 *The conduct of observation*

Basically, the work of observation could be divided into three parts, which were respectively included in the pilot work, the exploration of the age-friendliness of outdoor space of Anqing (against the WHO's age-friendly checklist), as well as the in-depth investigation conducted in the selected urban public spaces and case communities.

In the pilot work, observation was first carried out in the 21 neighbourhoods in order to collect data for the selection of case communities. This observation work started in late August 2016 and ended in early October 2016. Two non-participant observations were carried out in each of the 21 neighbourhoods, and every observation lasted around two hours. The observation locations in each neighbourhood were: neighbourhood outdoor space where older people were doing activities; neighbourhood amenities, including green space, pavements, bus stops, and recreation and leisure facilities; a visual audit of security facilities and staff. Another seven non-participant observations were also conducted to select sites of the urban public spaces for further deeper investigation. In each observation, the researcher spent around 3 hours walking around the city, especially the downtown area, trying to locate places where older people were engaging in activities there.

In exploring the age-friendliness of places of Anqing, both non-participant and participant observations were employed in places and facilities that were listed in the WHO's age-friendly checklist (see Table 3.7). These participants were conducted throughout the three rounds of fieldwork[17]. During the first fieldwork period, the city was trying to apply for the coveted title of "National Civilised City"; thus, the local government was working on the improvement of the city's environment, including the quality of the outdoor space. The second session of fieldwork was carried out shortly after the city won the title in November 2017. The findings in these places were mapped onto WHO's Age-friendly City framework.

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[17] August 2016 to January 2017; November 2017; and January 2018 respectively.

Table 3.7 Observations for exploring the age-friendliness of outdoor of Anqing

Observations for exploring the age-friendliness of outdoor of Anqing					
Item	Location	Weather	Type	Number	Duration
Public areas (including green space and outdoor seating)	Ling-hu Park and Lian-hu Park	Cloudy and cold	Non-participant	2	90 mins
	The Civil Square and The Science Square				60 mins
	The pedestrian street				60mins
	The riverbank				70mins
Pavements	Ji-xian Road	Sunny and cold	Participant	1	40 mins
	Long-shan Road				40mins
	Shuang-jin Street				30mins
transportation	Pedestrian crossings of Ji-xian Road	Sunny and mild	Non-participant	3	30 mins
Cycle paths	Ji-xian Road	Sunny and cold	Non-participant	1	20 mins
	Lake Park Road				20 mins
	Yan-jiang Road				30mins
Buildings	King Peak Plaza	Cloudy and cold	Participant	1	60 mins
	New Bay Shopping Centre		Participant		30 mins
	Injoy Plaza		Participant		45mins
	New City Mall		Non-participant		20 mins
	YAOHAN		Participant		45 mins
	Bailian Anqing Shopping Mall		Participant		40 mins
	Railway station		Non-participant		15mins
Public toilets	Riverbank	Sunny and mild	Non-participant	1	10 mins
	Yi-cheng Road				5 mins
	Shi-fu road				5 mins
Public transportation	No. 7 and No.14 buses	Sunny and cold	Participant	2	30 mins
	Bus stops on Hu-xin Road, Lake Park Road, and near the Science and Technology Square	Sunny and hot	Non-participant	1	20 mins

During the in-depth investigation in the three case study communities (Table 3.10) and the five urban places (Table 3.8), both non-participant and participant observations were conducted. In non-participant observation, the researcher aimed to collect data on the basic condition of the places observed as well as older people. The main source of data of older people's activities in places was drawn from the observation that took place in Da-hu , Rong-sheng and Tai-ping-si communities between early September 2016 and early January 2017. The observation work was carried out several times at intervals within a day (between 7 am and 8 pm). The period of observation covered various weather conditions, and the data collected reflects the general conditions of use of these outdoor places throughout the year. The dates and weather conditions of observation work undertaken in the three case study communities are presented in Table 3.9.

In participant observation, the researcher used those places or joined older people's activities while observing them. The purpose of carrying out participant observation in places was to explore deeper details as well as obtain personal use experience, such as the bus and other facilities; as far as older people were concerned, the purpose was to gain a closer connection with older people and their activities, in order to conceive a better understanding of the emotional aspects of these activities, including intrapersonal interactions; for instance, attending classes of the U3A, and capturing more issues that were discovered during walking with older people in places – for example, older people shopping at the mall.

Table 3.8 Observation in selected urban public spaces

Observation in selected urban public spaces				
Place	Weather	Type	Number	Duration
Science and Technology Square	Sunny and mild	Non-participant	3	60mins
	Sunny and cold			60mins
	Cloudy and cold			60mins
Linghu Park	Sunny and mild	Non-participant	2	120mins
	Rainy and cold			60mins
Pedestrian street	Sunny and hot	Non-participant	3	50 mins
	Cloudy and cold			60 mins
	Rainy and cold			40 mins
Riverbank	Sunny and mild	Non-participant	3	60 mins
	Sunny and hot			60 mins
	Cloudy and cold			50mins
University for the Third Age	Sunny and mild	Participant	1	30 mins
	Sunny and hot	Non-participant	1	70 mins

Table 3.9. Dates and weather conditions of the first-round observation work in the case study communities (Da-hu, Rong-sheng and Tai-ping-si)

(Source: author; note: "D.H.", "R.H." and "T.P.S." represents Da-hu, Rong-sheng and Tai-ping-si respectively)

Weather \ Date	5th Sep. 2016	25th Oct. 2016	31st Oct. 2016	1st Nov. 2016	2nd Nov. 2016	3rd Nov. 2016	4th Nov. 2016	5th Nov. 2016	6th Nov. 2016	7th Nov. 2016	8th Nov. 2016	9th Nov. 2016	10th Nov. 2016	11th Nov. 2016	15th Nov. 2016	17th Nov. 2016	18th Nov. 2016	28th Nov. 2016	29th Nov. 2016	4th Dec. 2016	29th Dec. 2016	30th Dec. 2016	31st Dec. 2016	7th Jan. 2017
Sunny					•	•	•	•	•											•	•	•	•	
Cloudy			•								•		•	•	•			•	•					
Rainy	•	•	•							•		•				•	•							•
Hot	•	•					•	•	•															
Mild			•	•	•	•				•	•	•	•	•	•	•	•	•		•				
Cold																			•		•	•	•	•
Community	D.H.	D.H.	R.S.	T.P.S.	D.H.	R.S.	R.S.	D.H.	T.P.S.	R.S.	D.H.	D.H.	T.P.S.	R.S.	T.P.S.	T.P.S.	R.S.	D.H.	T.P.S.	R.S.	T.P.S.	T.P.S.	R.S.	D.H.

Table 3.10 Observation in case communities

Observation in case communities				
Community	Location	Type	Number	Duration
Da-hu	Lake park	Non-participant	16	30 mins
	Pavements	Non-participant	16	20 mins
	Fitness areas	Non-participant	10	20 mins
		Participant	2	15 mins
	Concrete slab	Non-participant	14	25 mins
		Participant	2	30 mins
	Croquet court	Non-participant	10	15 mins
	Covered walkway	Non-participant	15	15 mins
		Participant	1	45 mins
	Recreational platform	Non-participant	10	10 mins
	Raised flower beds	Non-participant	10	10 mins
		Participant	2	20 mins
	Open space in front of the activity centre for older people	Non-participant	8	15 mins
		Participant	1	60 mins
	Food market and street market	Participant	6	40mins
Rong-sheng	Pavements	Non-participant	16	20 mins
	Spaces between residential buildings	Non-participant	16	30 mins
	Street market	Non-participant	12	25 mins
	Newly constructed fitness area	Non-participant	14	15 mins
Tai-ping-si	Fitness area behind ancient city wall	Non-participant	14	10 mins
		Participant	2	20 mins
	Flowerbed behind ancient city wall	Non-participant	16	20 mins
	Spaces between residential buildings	Non-participant	16	60 mins
	Large flower bed where cars were parked	Non-participant	16	20 mins

3.11.2 *The observational field notes*

To carry out observation, Gehl and Svarre (2013) suggest that researchers should use simple and immediate tools, such as a pen and a piece of paper, to keep diary or field notes, because this is "a method of noting observations in real time and systematically, with more detail than in quantitative 'sample' studies" (p.32). In addition to location, time and weather information were also recorded in all field notes, as they were factors that influenced people's activity in urban spaces. Two samples of observation field notes, including non-participant and participant observations, were picked up and translated into English, which are shown in Figure 3.5 and Figure 3.6.

Nevertheless, there was a difference of structure between non-participant and participant observational notes. The field notes for non-participant observation were taken to collect data on the basic condition of the places observed as well as older people's activities, while for participant observation, more details were recorded, including use of place and older people's interactions or issues in relation to their activities undertaken in the place (Table 3.11). The reason for adding these details was that participant observation generated data on the relationship between older people and place at deeper level that non-participant observation was unable to collect. Taking bus service for example, non-participant observation could tell physical conditions of bus, for instance, cleanliness, however, the attitudes of the bus driver and other passengers to older people was also important part of the age-friendly checklist and could be only accessed through the researcher's experience of taking a bus.

Table 3.11 The structures of the two types of observational notes

observational notes / Observation subject	Non-participant	Participant
Place	Time, location, weather, attributes (against the age-friendly checklists)	Time, location, weather, details of use (against the age-friendly checklists)
Older people	Time, location, weather, number of older people, activity patterns	Time, location, weather, event or activity condition, older people's intrapersonal interactions, issues identified during the process of the event or activity
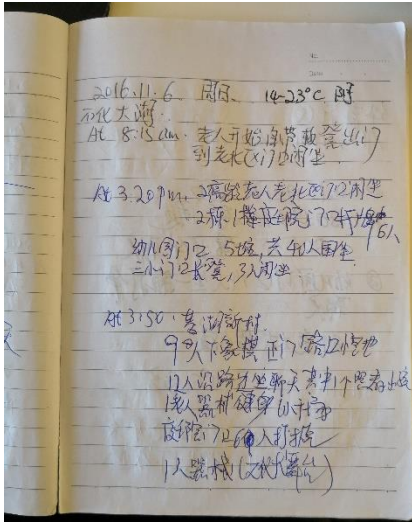
6th Nov. 2016 Sunday 14-23℃ Overcast

Da-hu Community

At 8.15 am: older people started to go out of homes with folding seats to sit at the gate of the neighbourhood.

At 3.20 pm: two very old people were sitting and talking at the gate of the neighbourhood; 6 older people were playing cards in front of a backyard of the No.2 residential building; in front of the kindergarten, 40 older people in 5 groups were sitting and talking; three older people were sitting on the bench at the gate of the primary school.

Xin-hu-xin-cun Neighbourhood
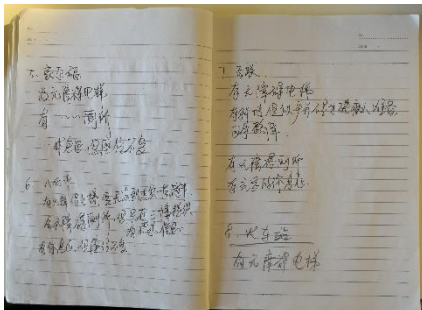
5. Carrefour (supermarket)

No accessible lift. Has accessible toilets. Has a rest area, but seats provided are not sufficient.

6. Yaohan (shopping mall)

Has an accessible lift, but it has no access to the underground supermarket. Accessible toilet is only available on the second floor, and there is information offered about its location. Has a rest area, but seats provided are not sufficient.

7. Bailian (shopping mall)

Figure 3.5 A sample of non-participant observational notes
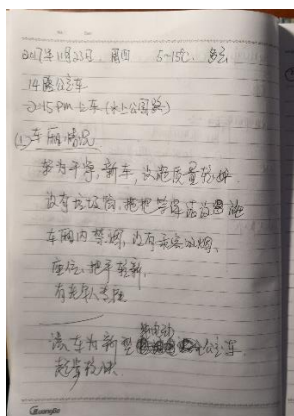
23rd Nov. 2017 Thursday 5-15 ℃ Cloudy
No. 14 bus
Got onboard at 2.15 pm (the Lake Park Road)

(1). Condition of carriage
Basically clean, it's a new bus with good facilities
The carriage has a bin and a mop
There is a no-smoking sign in the carriage and no passenger smoked
The seats and handles are new
There are several priority seats for older people

It's a new electric bus, and it speeds up very fast.
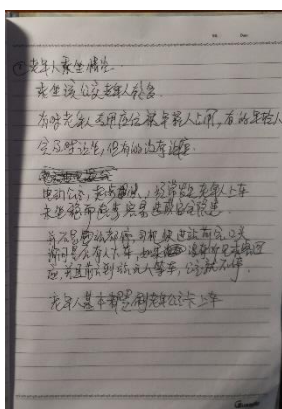
(2). Older people on the bus
There are many older passengers on the bus
Sometimes the priority seats were taken by young passengers, and some of them didn't give seats to older people.
The electric bus speeds up very fast, and the driver drives off before older people are seated, so sometimes older passengers who are walking staggered because of this.
The driver didn't stop at every designated stop. When the bus is approaching a stop, the driver will ask passengers whether anyone wants to get off verbally, and if no one response and there is no one waiting at the stop then the driver won't stop.
Basically older people use their bus pass when getting on board.

Figure 3.6 A sample of participant observational notes

This section presented information on the conduct of observation. The work of observation could be divided into three parts, including the observation in 21 neighbourhoods in the pilot work, the observation in the urban public places for the exploration on the age-friendliness of places of Anqing, and the observation carried out in the three case study communities and the five urban places. With respect to observational field notes, there was a difference in structure between non-participant and participant ones: compared with non-participant observational notes, participant counterparts recorded more details in relation to older people's use of places and intrapersonal activities among older people.

3.12 Data analysis

This section explains how the interview, focus group and observation data was analysed. The approaches to interview and focus group data analysis and observational data analysis are presented separately. In addition, a link between the data from the two sources will be produced when the observation data can be used to support or contract the interview or focus group data.

3.12.1 *General principles*

A case study is a comprehensive approach that combines multiple data sources to provide detailed descriptions of research phenomena in real-life situations (Morgan *et al.*, 2017). In this study, in addition to existing documents, such as policies and news reports, there are another two major types of data collected in the fieldwork that provide evidence, including interview and focus group data, and observation data.

It is argued that sources of data that are collected independently can either bring about separate findings or produce overall case findings by being integrated simultaneously in analysis process (Yin, 2014). Therefore, this research adopts a more flexible strategy in analysing data: first, analysis was undertaken of each source of data respectively, and then links were made between them. For instance, an issue of a place may be identified from focus group data, and if there is any relevant data about this place from other sources, then the researcher will put all this data together in order to present a more in-depth understanding.

3.12.2 *Interview and focus group data analysis*

Transcribing interview is an important stage of research process (Johnstone, 2017). Interviews and focus groups were conducted in Chinese; the data from them was collected by recording and then saved on computer. After the fieldwork, all digitally recorded data was then transcribed and translated into English. The process of transcription also contribute to the first stage of analysis, familiarisation with data, which mainly involves reading the transcripts several times (Rabiee, 2004) to form a "naive understanding of the text" (Ricoeur, 1976; Lindseth and Norberg, 2004, p.145), and listening to audio data or reading notes taken during

the interviews or focus groups (Rabiee, 2004).

The central aim of qualitative data analysis is to reduce irrelevant data (Robson, 1993) in order to identify valuable materials that could help in addressing the goal of study (Yin, 1989; Krueger and Casey, 2000). Hence, the second stage is to categorize participants' responses (Cohen *et al*., 1996) by dividing the text into meaningful units that are abstracted and condensed to form "themes" (Ricoeur, 1976; Lindseth and Norberg, 2004). The basic unit of transcripts is separate statements made by participant(s), the content of which focuses on specific topics (Cohen *et al*., 1996). In this stage, as Krueger (1994) stresses that, researchers need to take into consider frequency, extensiveness and intensity of the comments of participants, and the internal consistency of participants' responses needs attention as well.

Thematic analysis is a commonly used approach to categorizing participants' statements, "whereby the text is systematically analysed, coded and re-coded, to discover patterns and commonalities within the text" (Johnstone, 2017, p.77). This kind of analysis mainly includes developing codes and categories (themes), in which a usual process is to conduct line-by-line analysis of transcripts in order to develop codes, and then build these codes up to form categories or themes (Endacott, 2008). Figure 3.7 shows an example of using the thematic analysis in this study.

Coding is the main process in the thematic analysis, which includes asking analytical questions of data, categorizing segments of data with a short name (a code), and using these codes to sort and develop an understanding of the phenomenon that is being studied (Maher *et al*., 2018; Charmaz, 2006).

Apart from codes, common themes were also derived from keywords that could be identified by counting the occurrences of them. (Cohen *et al*., 1996). However, although key words can be helpful in identifying themes, they only make sense in specific context, because identical words used by participants may indicate different meanings (Johnstone, 2017), thus, considering the actual words used and their meaning as well as the context is necessary (Krueger, 1994).

Quotes/text

"*The change in the environment could change people…. I used to throw garbage away on the ground, but now I won't, because we have such a nice environment now, so I can't destroy it.*"(Mr. Ding, Da-hu)

Code

Awareness of protecting community environment

Quotes/text

"*We used to see them (the community dance team) performing in the street in freezing, windy weather. ..[t]o bring us pleasure… I am very touched by these things. Right? These women are all aged, but they dedicated themselves selflessly.*"(Mr. Zhang, Rong-sheng)

Code

Contribution to community's cultural events

Quotes/text

"*I have seen many broken sports facilities …. in our community…..I once called the maintenance staff, but no-one answered my phone call.*" (Mr. Wang, Tai-ping-si)

Code

Concern about the maintenance of community facilities

Quotes/text

"*At the corner of the community wall….there used to be a pile of garbage; it existed for many years and it became very smelly in summer, and later we reported it to the enterprise and its leaders came here and had a look at it, then the pile of garbage was removed and the corner was cleaned up…*" (Mr.Hu, Da-hu)

Code

Take actions to discover and address community environmental issues.

Pattern emerges/Theme

Love for place

Pattern emerges/Theme

Concerns for place

Main Theme

Pride of place

Figure 3.7 Framework of interview and focus group data analysis

After the thematic analysis, the final stage is to read the text again as a whole, and reflect on the naive understanding and the themes in relation to the literature about the meaning of lived

experience to form a comprehensive understanding (Ricoeur, 1976; Lindseth and Norberg, 2004), and big ideas that emerge from the reflection on the accumulated evidence and cutting cross different discussions (Krueger, 1994; Rabiee, 2004).

3.12.3 *Observational data analysis*

The observation data was recorded in a notebook on site. Time and data information was recorded in the two sets of data, and weather conditions were recorded in the observation data as well. Frequently, photographic data was also collected by digital camera and mobile phone, and was saved on computer afterwards. These two sources of data were quite often collected simultaneously, because the observations were conducted with the naked eye, a pen and a piece of paper, occasionally using cameras to zoom in on situations or fast-freeze the moment in order to analyse the situation more closely (Gehl and Svarre, 2013).

The analysis of qualitative data, including observations, requires a systematic approach (Goyal, 2013). Figure 3.8 presents the process of the observation data analysis. Basically, the raw observational data from field notes could be divided and synthesized into two major categories: older people related data and place related data. In the older people related category, data involved activity patterns, behaviours, intrapersonal interactions and other issues identified during older people's activities in place. Data in the place related category involved attributes and details of use of places observed.

After the step of categorization, the observational data was further processed for two purposes. First, in qualitative research, the process of interview or focus group data analysis is always complemented with the observational data, i.e. the field notes taken on sites (Rabiee, 2004). Hence, the categorized observational data was selected and presented to support codes or themes that emerged from interviews or focus groups. Second, examining the urban spaces' age-friendliness was one of the major objectives of the research. Thus, the observational data, especially the one in the place related category, was further classified according to the WHO's age-friendly cities checklist and served as a critical basis to evaluate how the city age-friendly was.
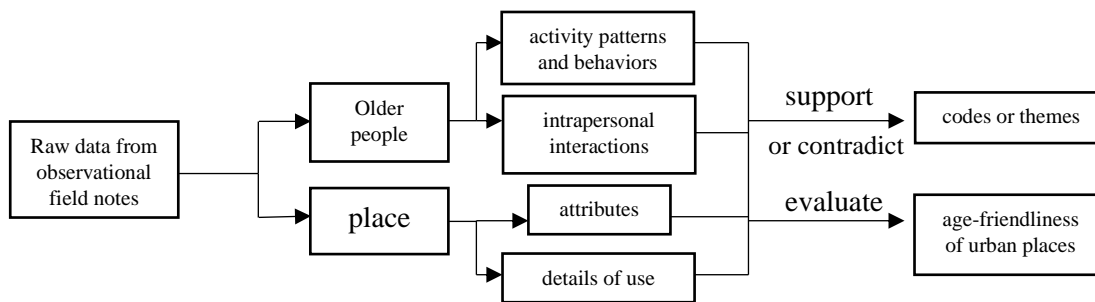
Figure 3.8 Framework of observational data analysis

This section presented approaches to data analysis of this research. In general, systematic analysis was first employed for analyzing interview and focus group data and observational data respectively. Then links were generated between the two sets of data that had been sorted out through systematic analysis. In the interview and focus group data, the thematic analysis is a commonly used approach to categorizing participants' statements, in which the process of coding was employed to produce main themes. With regard to the observational data, an arrangement of raw data from observational field notes was conducted based on two major categories, including older people related data and place related data, in order to get quick access to data that could support or contradict emerged codes or themes from interviews and focus groups, as well as could contribute to evaluate age-friendliness of urban places.

3.13 Ethical consideration

This section discusses issues in relation to ethics emerged from carrying out the study and how the researcher tried to address these issues in an appropriate way. In general, the researcher made every effort to protect the participants' right of privacy and ensure that the results of this research would not affect stakeholders' interest and reputation. In order to obtain informed consent, a brief introduction to the researcher's background as well as the content and aim of the research were prepared in advance (see the "Information on the research" in the Appendix F); in addition, a consent form was also produced (see the "Consent form" in the Appendix G). These two documents were written in English and Chinese, and sufficient copies of them were printed out before contacting the participants.

Prior to interviews and focus groups, participants, especially older people, were informed about the purpose of the research through the researcher's verbal account and presenting the "Information on the research", and then were asked if the researcher could speak with them on related issues. Furthermore, participants were told that they did not have to participate and the researcher would assign random names to protect their identity. Moreover, no personal detail was gathered about income or personal circumstances, and the participants were aware of this. In short, the researcher tried to assure participants that if they took part in the research, their privacy would be strictly protected and their interests would not be affected.

In order to facilitate the collection and analysis of data, interviews and focus groups were often audio recorded, and several photographs of these events were taken. With regard to this, the researcher explained to the participants that all data collected, including the audio and visual recordings, would not be used for other purposes apart from academic research. In addition, participants were told that if they did not want to be audio recorded and photographed, the researcher would omit them or in the case of audio recording, rely on written notes only. It is worth noting that, according to the researcher's experience, in some cases, especially when interviewing some community leaders, audio recording, and even note taking, can cause these stakeholders discomfort, which influences the quality of interview. Therefore, in this circumstance, the researcher would pay more attention to the facial and verbal expressions of the participants, and once any signals were read, the researcher would stop recording immediately and try to proceed the interview in a more natural and relaxing way.

Copies of the "Consent form" were also handed out, and the participants were also told that they were free to sign them or not. Interviews and focus groups would not be carried out until the researcher gained consent from the participants. But, nonetheless, some participants agreed to take part in the research but did not want to sign the form. This situation happened more often when conducting outdoor interviews with older people who were also engaging in other activities, such as child care and working out. In these cases, the researcher gained these participants' verbal consent and then proceeded to interview or focus group discussion. Moreover, they were told that if they wanted to withdraw after interviews or focus groups, they could also contact the researcher and all of the data provided would be omitted.

In the Chinese context, extra ethical consideration should be given to contacting some specific

stakeholders who have close relationship with the government, such as community leaders and the director of the U3A. In China's political environment, governmental officials and the community leaders were sensitive to giving any information that might be used against them. Thus, they tended to be very cautious about interviews on issues related to their fields. As a former planning officer in the government, the researcher can understand what these participants were worried about: a poor state of affairs could reflect badly on their leadership positions, and they were also unsure whether this would come to the government's attention with negative consequences for them and the community or the institution. To address these particular ethical challenges under such circumstances, the researcher stressed the academic nature of the investigation that would not report the results of the study to anyone other than supervisors and academic peers, in other words, undertaking the doctoral research was not for the government nor would it be reported. Second, the future publication of the thesis would only be in English and Western scholars would be the main source of potential readers, thus, there was no likelihood that a thesis written in English would ever find its way to the attention of city officials and planners in China. Through employing these strategies, the researcher gained more trust from these stakeholders and they all agreed to participate in interviews and acted quite positively in offering information and points of view on related topics.

Some of the interviews with older people were conducted outdoors, and often when they were doing activities in places. The biggest ethical concern raised from doing this was that interviews could disturb older people's ongoing activities. Therefore, patience was needed for capturing suitable occasion in which interviews might be conducted. Frequently, older people tended to be happy to talk when they were engaging in activities that did not need much concentration, such as walking and talking, or alternatively when they stopped to rest. Sometimes, the process of outdoor interviews with older people was subject to their schedules, in other words, the progress could be interrupted because older participants needed to do other things or leave the place. Fortunately, it has been identified that older individuals tend to visit some specific places often, hence, the researcher visited these places repeatedly and met these older people to resume interviews. In brief, patience was needed when conducting outdoor interviews but this led to developing a positive relationship with older people.

Observation was undertaken by complying with laws and local regulations. Generally speaking, there was no restriction on observing in public spaces, however, when visiting some

specific places, such as gated neighbourhoods and the U3A, these required the local security staff's permission. Moreover, note taking frequently accompanied observation. In most cases, this did not cause any issues, nevertheless, some older people were curious about what was being written. When this happened, the researcher explained what he was doing and stressed that the observation would not disturb their activities. Based on the researcher's experience, no older people challenged the researcher's observation and note taking.

Compared with observation, there are more ethical issues related to the use of photography. First, taking photographs can cause trouble in some places, for instance, a gated community with strict security policy. Thus, in these communities permission was requested in advance. Second, older people's activities in places was important data to be collected through photographs. In most cases, it did not cause any issues when taking distant view photos of older people, for instance, square dancing. But even in these cases, the researcher tried not to focus the camera on older people's faces. If more details of their activities in places were needed, the researcher informed older people about the purpose of the study and the use of these photos. The researcher's experience shows that compared with observation or note taking, this method cause rather more discomfort to older people, hence, the researcher stopped taking photos if any participants refused.

This section reflected on ethical issues encountered, especially when conducting fieldwork in Anqing. Generally speaking, two major ethical issues needed to be considered and addressed. One was about older people's privacy and the need to ensure informed consent to interview and to photograph. To address these issues, full information was given and consent obtained. It was stressed that no personal detail was gathered about income or personal circumstances. Furthermore, if any measures undertaken during the process of interviews or observations, such as audio recording and photographing, caused people's discomfort, then the researcher would stop. The other major concern was about interviews with informants who had a close relationship with government. Here, the researcher stressed that the study was for academic purposes with no possibility of information leakage to city officials.

3.14 A reflection on this study

This section provides a reflection on this study, including aspects of positionality, the ethnographic research undertaken, and the conduct of fieldwork. In particular, the reflection will focus on methods used during the fieldwork, for instance, further discussion will be presented to think of how these methods worked in practice, and what would do differently were the researcher to repeat the study.

As presented in the literature chapter, current active ageing theories were mainly developed based on the Western environment, thus a gap has also been identified in relation to the theories' application and reflection in non-Western context, for instance, in developing countries in Asia. The thesis contributes to filling this gap because the researcher's positionality as a Chinese PhD student who studied in the UK. brings together the opportunity to re-interpret Western understanding of active ageing and the age-friendly framework in the light of China's social and cultural environments.

Furthermore, the conduct of ethnographic-style fieldwork raised an issue of the researcher positionality, which could have impact on the process of data collection and the relation with the research environment (Bachmann, 2011). The researcher's positionality as a native of Anqing was considered to facilitate the conduct of fieldwork through shared culture, shared local dialect and own network that facilitated the recruitment of research participants.

As a developing city, Anqing is boosting its social and economic development at great speed, and the city's built environment is subject to rapid investment and transformation. These changes also took place in communities, for instance, the Da-hu Community. As a resident in Da-hu for over twenty years, the researcher has more direct experience in living in the changing community environment. Thus, at the planning stage of the fieldwork, the researcher anticipated that his shared experience might be beneficial in acquiring deeper understanding from the findings of the fieldwork conducted in the community.

However, being a young researcher, due to significant gap in age as well as in lived experience, I have been aware of some "stereotypes" of older people in my perceptions. For example, I believed that older people in Anqing were only engaged in a limited range of

activities such as walking, Tai Chi and square dance. But, after the fieldwork, especially the observations carried out in different places across the city, it was clear that older people were engaged in a much broader range of activities that included a love of learning and volunteering. Moreover, the participant observation provided deeper insights into individual's relation with place and other people that was developed through taking part in activities. In addition, the method of participant observation also helped the researcher in identifying more issues that could have been ignored before, for example, the ways in which the bus service did not measure up older people's needs. In short, all these methods and reflections urged the researcher to orientate himself as an outsider to older people's environment and needs.

In order to collect richer data on older people's use of outdoor spaces, the researcher conducted observation in venues where a relatively large number of older people were observed frequently doing activities there, for instance, the community centre of Da-hu. In the meantime, two different strategies were applied in designing the contents of interviews and focus groups, and these methods worked well in data collection in practice. The in-depth semi-structured interviews dug out more details about older people's lived experience and preference of outdoor space use and activity choice, while the focus groups created a more relax and lively atmosphere for participants to discuss topics of common interest.

The fieldwork revealed older people's activity patterns and their use of space. Nevertheless, findings of observation also identified that some places, even those with facilities such as tables and seats, attracted very few older people. It would be very interesting to explore more on the reasons for this phenomenon because these places were expected to be "wonderful" sites for older people's activities. Further investigation could involve asking older people to visit and experience these places, and then explore with them their perceptions.

This section showed a reflection on the study, with a special focus on methods employed during the fieldwork. The methods of interview and focus group contributed differently to data collection: the in-depth semi-structured interviews dug out more details about older people's lived experience and preference of outdoor space use and activity choice, while the focus groups created a more relax and lively atmosphere for participants to discuss topics of common interest. The researcher's positionality as a native of Anqing would facilitate the process of the conduct of fieldwork in the city, but on the other hand, being a young

researcher there would be some "stereotypes" of older people existed in the researcher's perceptions before carrying out fieldwork in Anqing. The experience of conducing fieldwork urged the researcher to orientate himself as an outsider to older people's environment and needs. Based on findings of observation, if the researcher were to repeat the study, then it would be interesting to determine whether investment in places is always appropriate and well done.

3.15 Summary

This chapter proposed four research questions about active ageing, place and the relationship between them in the urban Chinese context, as well as the role of planning in supporting older people to age well. The research questions included: How do we understand active ageing in China through older people's use of outdoor space? How age-friendly is the built environment in a developing Chinese city? How do places support older people's social connections? How can urban planning support older people to age well?

From the ontological and epistemological reflection, it has been identified the overarching study object is the urban place that supports active ageing in Chinese context, and this research takes the WHO's guideline and checklists as the research basis, trying to produce a version appropriate to Chinese cities. This research contributes to the scholarship in exploring the conditions of China's physical and social environments through methods that explore at affine grain older people's lived experience and perception.

This study selected case study as the basic research form. The process of selection of the study cases consisted of two steps. The first was to select the research area in China, and the city of Anqing was chosen as a typical third-tier city of severe ageing-related challenges, also taking into account the researcher's strong connection with the city. In the second step, by drawing on the work of observation conducted in 21 neighbourhoods across the city and the data collected from other sources, three communities, i.e. Da-hu, Rong-sheng and Tai-ping-si, were selected as the study cases.

Prior to the main research activity, the researcher carried out a pilot study which comprised informal interviews that occurred in random encounters and observation in neighbourhoods

and urban public spaces. The purpose of the pilot interviews was to develop and refine the interview and focus group guides, and gain more useful information that was beneficial to the conduct of fieldwork. Moreover, the conduct of pilot work also helped the researcher to produce a more reasonable and practical style of approaching and communicating with older people.

This study employed qualitative approaches, including semi-structured interviews, focus groups, non-participant and participant observations, to data collection and analysis. The reason for employing a qualitative research design was that these methods were particularly appropriate in exploring older people's lived experience and points of view, and in using the descriptive standards of age-friendly environments of the WHO's age-friendly cities checklists.

With regard to data analysis, systematic analysis was first employed for analyzing interview and focus group data and observational data respectively, then links were generated between the two sets of data that had been sorted out through systematic analysis. More specifically, the thematic analysis featured by the process of coding was used to produce main themes from the interview and focus group data; while an arrangement of raw observational data based on two major categories, including older people related data and place related data, was employed to get quick access to data that could support or contradict emergent codes or themes from interviews and focus groups, as well as could contribute to evaluate age-friendliness of urban places.

Chapter 4. The city and the communities

4.1 Introduction

This chapter will outline the socio-economic development, history, culture and current changes in urban built environment and care services for older people. A brief introduction to the case study communities will also be presented, with a focus on the outdoor environment. In addition, a discussion on decision-making structure within the city and communities will explore the roles and power of different stakeholder groups.

4.2 The context of Anqing

This section presents the context of the case study area: the city of Anqing. The content mainly covers the city's development, with a special focus on its urban planning, economic and industrial development, history, culture, and current changes in urban built environment. In addition, the city's services for older people, including the construction of care service stations and the investment in the care system for older people.

4.2.1 *Socio-economic conditions of Anqing*

As Figure 4.1 and Figure 4.2 show that the city of Anqing lies on the north bank of the mid-lower reaches of the Yangtze River in the southwest of Anhui province. As at the end of 2014, the city of Anqing covered an urban area accounting for 81 km² and 808,000 urban residents (SBAP, 2015).

Figure 4.1 Anqing in China

(Source: State Bureau of Surveying and Mapping of China,

scale: 1:50 000 000)

Figure 4.2 Anqing in Anhui Province

The general economic condition of the developing city is inferior to its more developed counterparts in the east. Anqing's economic aggregate is relatively low, and so is the GDP per capita (Wang, 2008). For instance, in 2014 the GDP per capita of Anqing was about 28,800 RMB Yuan (less than US$ 5,000), while the GDP per capita of Hefei, the provincial capital city of Anhui province, was around 67,400 RMB Yuan (more than US$ 10,000), and that of Shanghai in the same year was 97,300 RMB Yuan (about US$ 15,850).

However, being a developing tier 3 city, although undergoing seemingly negative demographic change, Anqing is nonetheless in its period of rapid development. This is evident in the expansion of the urban built environment: for example, according to the official data, during the 12th Five-Year Plan period (2011–2015) the total investment in fixed assets of urban construction was around ¥ 40.2 billion (approximately £4.02 billion), which increased 145% from the period of the 11th Five-Year Plan that covered the period 2006–2010 (Zhang and Tan, 2015). With an average annual investment growth rate of 19.6%, the city finished a series of major projects, including the construction of the pedestrian street in the downtown area and the waterfront landscape, to name but a couple.

4.2.2 *The developmental plan of Anqing*

Since the reform and opening-up policy was implemented in the late 1970s, the central government of China has been putting economic development first (Huang, 2016). In line with the national policy, the latest (13th) Five-Year Plan (2016–2020) for Anqing issued by the municipal government in 2016 made the development of the economy the first priority (Anqing Municipal Development and Reform Commission, 2016). The traditional industries of Anqing are petro-chemicals and textiles, which have contributed a large portion of local GDP growth. The plan prioritises industrial upgrades, aiming to broaden the economy from its narrow industrial base to include clean energy car manufacture, high-end equipment manufacturing – for example, robots – and new material industry, including high-performance fibre, in order to increase the share of high-tech industries.
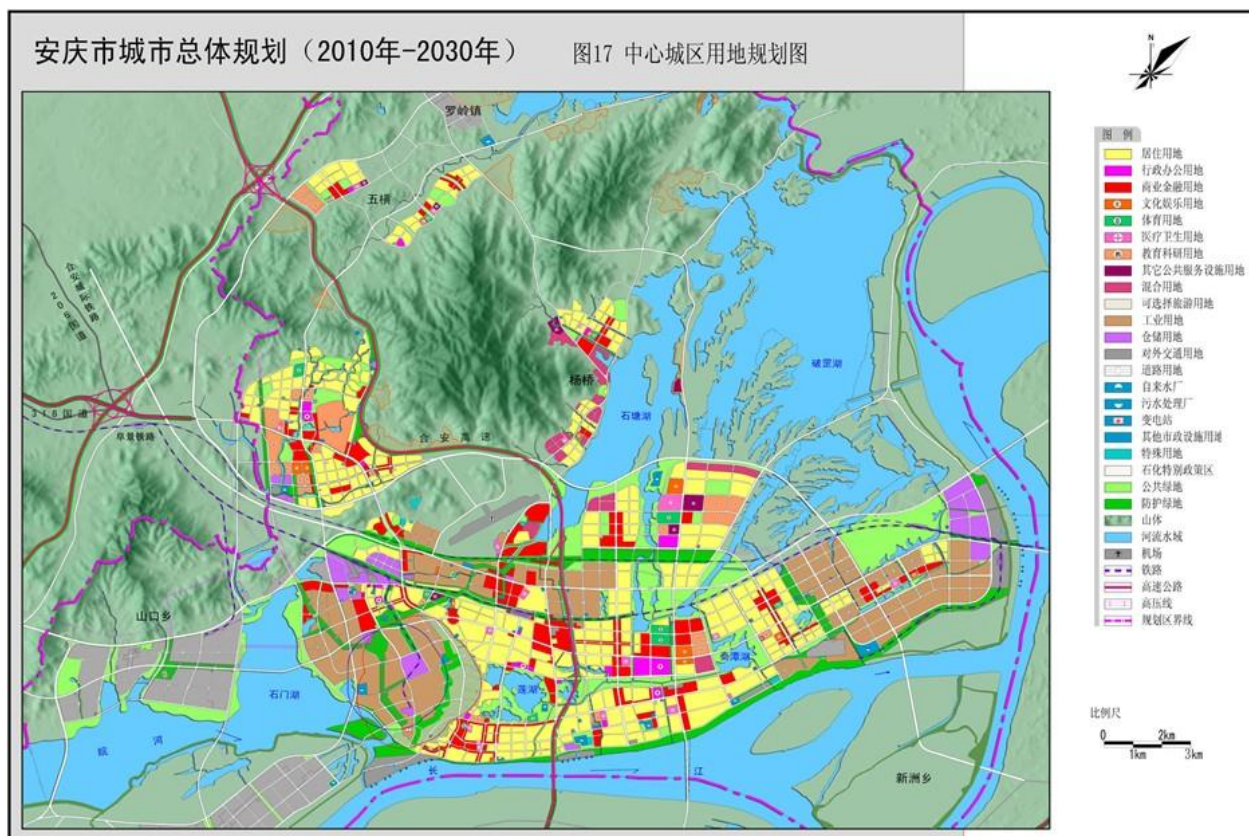
Figure 4.3 Land Use Plan for Anqing (2010–2030) (Source: Urban and Rural Planning Bureau of Anqing, 2010. Note: the light green area represents public green space and the brown area represents land for industry)

Alongside the strong economic drive, the local government also proposed specific strategies in the Five-Year Plan to improve other aspects of the city, including the transformation of old neighbourhoods; new infrastructure; environmental protection and improvement in citizens' living standards. The latter are measured in economic measures that is a rise in per capita income and employment opportunities. Neither of these embrace older people whose incomes are determined by pension policies and who are least likely to be seeking employment.

According to the plan, the city government aims to transform 2.55 million m^2 of old neighbourhoods. The so-called "old neighbourhoods" refers to those built before 2000; most built around the 1980s. The transformation is not about demolition and new build of dwellings, but mainly involves environmental aspects, including the improvement of facilities such as drainage, street lights, roads and sanitation facilities – for example, refuse and litter bins.

The construction of infrastructure is another major focus of the Five-Year Plan. By 2020 it is planned that there will be 1,200 km of metalled road. The increase in length of urban roads reflects the rapid growth of the city and private car ownership of the citizens. The number of cars of the urban area of Anqing had reached 97,757 by the end of September 2015, and 9,206 new cars were purchased between January and September 2015 (Shen and Hu, 2015).

In respect to environmental protection, the Five-Year Plan aims to shift the traditional goal of controlling pollution to improving environmental quality by developing a low-carbon living environment that sit awkwardly with the expansion of the road network. More specifically, the goal is to achieve more than 90% of good air quality days by 2020. At present, based on the official report, the city had experienced continuous good air quality days for 33 days up to July 19th 2017 (Huang, 2017). As part of this agenda, as shown in Figure 4.3, the Master Plan (2010–2030) for the city looks to increase the land for public green space per capita in urban area from 4.3 to 12 m^2 by 2020.

In terms of the improvement of the people's livelihood, including aspects of income and job opportunities, the Five-Year Plan sets the goal that "[b]y 2020 about 75,000 extra jobs would be created for urban citizens", and "the per capita income would reach the average standard of the province". Currently, the annual disposable per capita income of the urban dwellers of Anqing is 26,502 RMB Yuan (£3,017), while that of Anhui province is 29,156 RMB Yuan (£3,319). Needless to say, economic development is one of the critical factors that is contributing to the income gap. Furthermore, Wang (2008) argues that the economic plight that Anqing is facing lies in the lack of large enterprises as well as an efficient industrial chain between local enterprises. As a consequence, many young people are driven to move to other areas, seeking better jobs.

4.2.3 *The city's titles*

Anqing has been awarded several honours by the central government, such as "National Famous Historical and Cultural City" (2005) and "National Garden City" (2006). These titles reflect some shining images of the city. For instance, as a "National Famous Historical and Cultural City", Anqing has preserved historic sites, such as the Ying-jiang Temple built in AD 974 (as shown in Figure 4.4), the most famous and the biggest Buddhist temple of the city near the Yangtze river. In addition, the city has a unique strong local cultural heritage, such as the Huang-mei Opera (Figure 4.5), which is still enjoyed today. The Huang-mei Opera was

developed originally more than 200 years ago, and is one of the most famous and popular traditional operas in China.

Figure 4.4 Ying-jiang Temple

(13/09/2016)

Figure 4.5 Performance of Huang-mei Opera (Source: Baidu Images)

The opera is combined with the local folk art as well as singing and chanting in the Anqing dialect; thus, singing Huang-mei Opera is a popular entertainment in Anqing, and during the course of the research many older people were seen engaged in opera in the city's open spaces. The city government also values the unique cultural heritage and has some specific facilities for the local opera company; for instance, the arts centre of Huang-mei Opera built on the Civic Square (see Figure 4.6).

Figure 4.6 Arts centre of Huang-mei Opera

(24/11/2017)

Apart from traditional arts, Anqing is renowned for its special status in the historical events of China's modern history, such as the anti-imperialist uprisings in the 1900s and democratic movements of the 1920s. To commemorate these the memorial park for local revolutionary martyrs (Figure 4.7-a) and the museum of revolutionary relics (Figure 4.7-b), were built in the downtown area. In addition, Anqing witnessed some historic milestones in the industrial development of modern China, such as the first ordnance factory founded in Anqing in 1861, where the first Chinese steam engine and the first steam ship were built in 1862.

Figure 4.7-a

Figure 4.7-b

Figure 4.7 Historical sites of the city

(16/09/2016)

The branding as "National Garden City" reflects the large and attractive landscape that makes up more than 40% of the urban area as well as the waterscape, with several parks and two large lakes in the downtown area. Figure 4.8 shows the Civic Square and the nearby large lakeshore area that provides a large open space that are used for a variety of recreational and sports facilities by local residents.

Figure 4.8 Landscape of the Civic Square and the large lakeside area

(25/08/2016)

During the period of the first fieldwork (at the end of 2016), the city government was trying to win the title of "National Civilised City".[18] To achieve this goal, the city government was working to improve the urban living environment by encouraging all communities, in particular old ones, to set up, repair or replace outdoor sports facilities. Figure 4.9 shows how old fitness facilities have been replaced with new ones in a particular neighbourhood. In the next chapter we hear from older people who were involved in these changes.

Figure 4.9 Replacement of outdoor fitness facilities in Bin-hu Neighbourhood

(Note: photo at left was taken on 05/09/2016 when the facilities were damaged, while photo at right was taken on 28/12/2016 when the old facilities had been replaced)

4.2.4 *Services for older people*

While the city had gained a series of labels, which would make it more competitive in achieving the "National Civilised City" title, the focus of this thesis is on the extent to which the city has already invested in care services for older people, leading towards another possible label, which is the "Age-friendly City". With regard to this, the city government has been paying increasing attention to ageing-related issues. In 2014, Anqing was selected by the central government as one of the first round of pilot cities to reform services for older people (Ministry of Civil Affairs of China, 2014). This shows that the city has achieved relatively

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[18] The so-called "National Civilised City" is a "comprehensive honorary title" set by the central government. A city awarded this title must show its strong economic strength and highly civilised society (Zhao, 2011, p.17). In the Chinese context, the "civilised society" and "civilised city" are inseparable from socialism (Du and Cheng,2016), and the aim of setting up the "National Civilised City" is to promote harmony in civil society and sustainability in urbanisation with the characteristics of Chinese socialism (Bao, 2011).

good progress in helping older people. Hence, the Five-Year Plan also highlighted the strategy to improve the provision of services for older citizens. In particular, community-based services including medical help were given more attention.

In traditional culture, Chinese families were supposed to provide care for older family members (see the discussion on filial piety in the literature review chapter). However, due to the rapid development in economy and society, along with the consequences of the "One Child Policy", the issues about who will care for older people are becoming more complex. In Anqing, the migration of the younger generation to more developed regions makes the issues worse. Evidence of the migration may be found in the interviews, newspaper reports (Liu, Wang and Du, 2010), the official census (Bureau of Statistics of Anqing, 2014) and the literature (Mao and Mu, 2016; Guo, 2010).

To address the emerging ageing-related issues, the city has built 87 elderly care service stations by 2014 (Zheng and Wang, 2014). The so-called "elderly care service station" is a facility based in the community providing day care, household services, spiritual consolation and so forth. At each station, there is some accommodation offered to older people who need to live there for the long term. Due to this progress, in the same year, Anqing was selected by central government as one of the first round of pilot cities for the elderly service reform project (Ministry of Civil Affairs of China, 2014), aiming to provide experience for other cities.

Funding is one of the critical factors in delivering an age-friendly city. The city government has been trying to raise money, and in 2016 the funding of the "Anhui Aged Care System Demonstration Project" and other pilot cities in Anhui province was provided by the central government from a World Bank loan of US$32 million (World Bank, 2016). In the loan application process, the city government conducted a feasibility study as well as an environmental impact report on three identified projects, which comprised construction of community-based care service stations, the *yi yang jie he*[19] project at No.1 People's Hospital in Anqing, and government-funded services for older people (Yang and Wang, 2016; Liu and Ye, 2016). In early 2018, after making a great effort, the city government succeeded in securing a loan of $42 million from the World Bank to support the construction of a system of urban services for older people, including the project of community home-based care service

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[19] The so-called *yi yang jie he* (Chinese: "医养结合") means the combination of medical service and care service for older people.

stations for the aged (Bureau of Civil Affairs of Anqing, 2018). These were reviewed and approved by the provincial government and then the central government; after that, the formal application for the loan was submitted to the World Bank by the central government.

The city government has identified the construction of community-based care service stations as an important action in delivering services for older citizens (Bureau of Civil Affairs of Anqing, 2017a). More specifically, newly built neighbourhoods and established neighbourhoods are required to construct specific service facilities for older residents, with the aim of constructing 127 of these. For old communities, where space for construction is constrained, transforming existing buildings might be an applicable measure. For instance, the newly built Rong-sheng Community elderly care service station used the old community building (Figure 4.10).

Figure 4.10 Elderly care service station, Rong-sheng Community

(21/11/2017)

Currently, there are three older residents living at the Rong-sheng Community care service station. They are all very old and having difficulty moving about, and at the time when the researcher visited, two of them were resting in bed, and the other (a very old woman) was sitting in the living room and taking medicine. Because of their frailty, informal interviews were carried out with station staff instead.

The two-storey station has five bedrooms available to older people. In addition, there is a living room with a television, two dining tables, a reception area, a kitchen providing three meals a day for its residents, two toilets and a bathroom. Basically, the living environment of the station is clean, but a little dark on the ground floor (Figure 4.11).

The building is provided by the community, and the city government hires care providers and purchases services from the private sector. The staff comprise of a manager, who has a university degree in geriatric nursing, as well as two nurses. According to the prices shown in the brochure of the service station (Figure 4.12), the accommodation fee is ¥3,000 (about £335) per person per month for a shared room or ¥3,500 (about £390) per person per month for a single room. In 2016, the average pension per month for a retired worker of an enterprise was ¥2,362, which is equivalent to £265 (Han, 2017), so the accommodation is unaffordable to older people who have to rely on their pensions.

Figure 4.11 Indoor environment of Rong-sheng Community elderly care service station

(15/06/2018)

Figure 4.12 Brochure of Rong-sheng Community elderly care service station

(15/06/2018)

The national newspaper *China Society News* (a print outlet for the Ministry of Civil Affairs) featured an article (see Ye, 2017) in June 2017 by the director of the Bureau of Civil Affairs of Anqing. The city government views publication in the national newspaper as an honour and a mark of achievement in the area of older people's care (Bureau of Civil Affairs of Anqing, 2017b).

This section showed the context of the city of Anqing with a focus on the development of the urban built environment as well as the construction of care service system for older people. As a developing city, Anqing was experiencing fast changes in both social and physical environments, for instance, improvement in old communities promoted by the government-led renewal projects. In the meantime, the city government also made some progress in offering better services for older people to address issues in relation to ageing population, featured by the project of constructing elderly care service stations.

4.3 Brief introduction to the case study communities

This section will outline the basic conditions of the three case study communities. Based on the findings of the fieldwork conducted in 21 neighbourhoods across the city, analysis of each

one's socio-economic status and the number of outdoor older people's activity places, Da-hu Community (石化大湖社区), Rong-sheng Community (荣升社区) and Tai-ping-si Community (太平寺社区) (hereafter "Da-hu", "Rong-sheng" and "Tai-ping-si", respectively) were selected as case study communities (as shown in Figure 4.13). The analysis of the 21 neighbourhoods is presented in the methodology chapter.

By the time of the first fieldwork period (August 2016 to early January 2017), old neighbourhoods in Anqing were experiencing a transformation led by the city government. In the case study communities, the transformation of Da-hu was completed and was funded and operated by the petro-chemical enterprise, while Rong-sheng and Tai-ping-si were still in process of change. In November and December 2017, the researcher revisited these communities and identified recent changes. These changes are also presented in order to make a comparison with the original places.
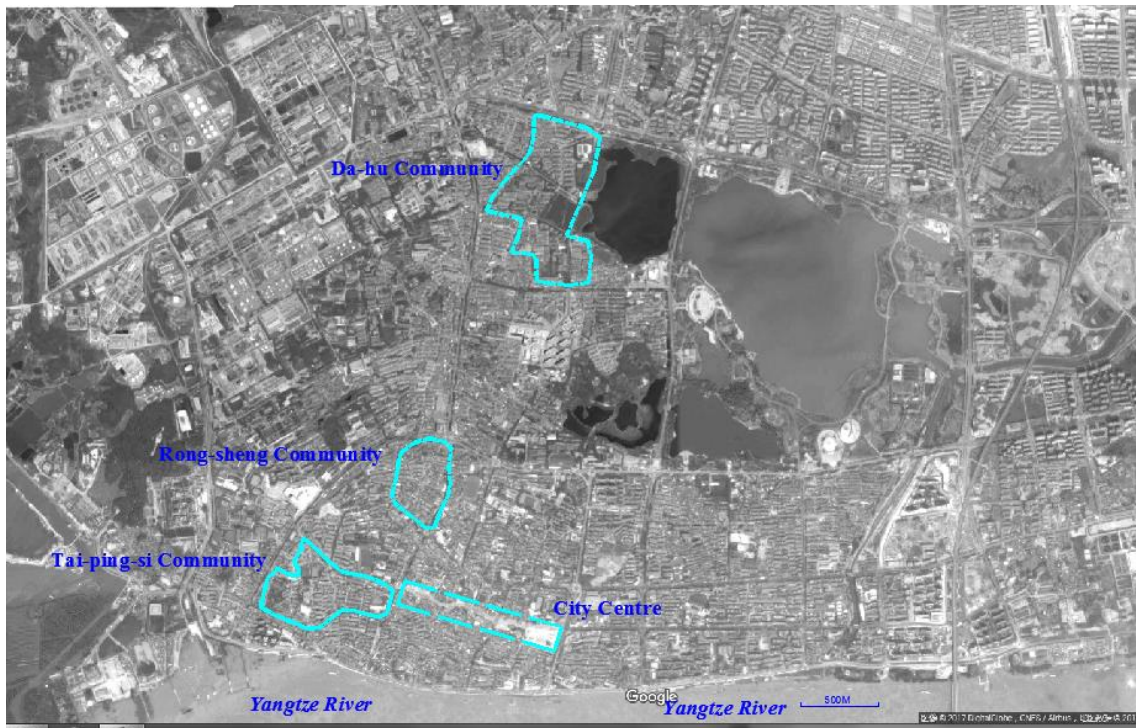
Figure 4.13 Map of the case study communities in the city

(Source: Google Maps;

Note: the light blue figures outline boundaries of these places)

4.3.1 *Da-hu*

Figure 4.14 Map of Da-hu

(Source: Google Maps)

Da-hu, as shown in Figure 4.14, is the largest community in the city, covering an area of 1.1 km², with 97 residential blocks of apartments, housing 13,000 residents (Street Office of Shi-hua Lu, 2016). As Figure 4.15 shows, the residential buildings of the gated community are five to seven storeys in height. "Da-hu" in Chinese means "big lake", because the community has a man-made lake and is close to the city's scenic lake area.
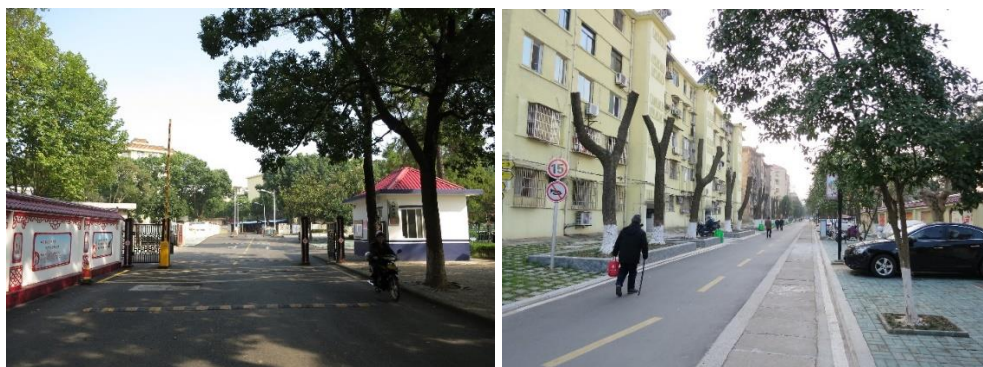
Figure 4.15 Da-hu

(31/12/2016)

Having grown up in the community, the author has more than 20 years' experience living in the neighbourhood and contacting local residents. The community used to belong to the China Petroleum and Chemical Corporation Anqing Company, a super-large state-owned enterprise. In the past, all the apartments belonged to the company. Because of the national housing reform that started at the end of the 1970s, but which gathered force in 1994, the tenure of the community residences changed rapidly. Workers were able to exercise the right to buy their properties at low cost. For instance, Mr. and Mrs. Qiao purchased their apartment from the petro-chemical enterprise in 1994 at a price of ¥8,000. According to the National Bureau of Statistics, the average disposable income for urban residents in 1994 was ¥3,496 (about £390)[20]. After purchase, residents own their apartments and are now free to resell or let their apartments. According to the real estate website,[21] the average price of these is now ¥6,576 (about £735) (June 2017) per square metre (Ganjicom, 2017), while the price of the newly built housing at the same time was about ¥,5697 (about £637) across the city (HongKong Xingkong Media Housing, 2017). The gap reveals that as in all countries, location is important in determining desirability and resale value. While the tenure of the dwellings shifted rapidly from renting to ownership, even today the majority of the community residents are workers or retired workers of the Petro-Chemical Company.

Work unit neighbourhoods had been the mainstream form of urban housing until the implementation of housing reform at the end of the1980s. Constructing work unit neighbourhoods is banned today, and residents are able to sell or purchase former work unit dwellings freely. Although the tenure has changed, a large number of retired older people nonetheless still live in their familiar community. A study in Wuhan conducted by Gilroy (2012) revealed that in spite of rapid changes most research participants had lived in their dwelling for a long time. Da-hu is another example of this stability.

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[20] Source: http://data.stats.gov.cn/english/easyquery.htm?cn=C01 (Accessed: 6 June 2017).
[21] www.ganji.com

4.3.2 *Rong-sheng*

Figure 4.16 Map of Rong-sheng

(Source: Google Maps)

Rong-sheng, which was built in the mid-1980s, is located in the city centre (Figure 4.16). The community covers an area of 0.28 km² and has more than 8,700 residents (Street Office of Long-shan Lu, 2016). Although it is an old community, the director of the residents' committee of the community, Ms. Jiao, said that local residents were not necessarily poor because the neighbourhood was built for the municipal government, and many older residents were retired civil servants who were well salaried and retired on good pensions. It is an open community, and all residential buildings of the community are apartment blocks, which are four to seven storeys in height.

Figure 4.17 Rong-sheng

(September, December, 2016)

Basically, the apartment blocks, as well as the roads and pathways of the community are poorly maintained (as shown in Figure 4.17). In terms of outdoor space, the preliminary observation of the community found that there were no outdoor fitness facilities because of insufficient space, and green space was also scarce. The researcher identified five plastic fixed seats near an apartment block and some of these were broken.

There is a street food market in western part of the community. The street market connects the bustling Bei-zheng Street and the centre of the community. This draws customers from the community and elsewhere each day.

The community is surrounded by four roads, which are Long-shan Road on the eastern side, Xiao-su Road on the southern side, Bei-zheng Street on the western side, and De-kuan Road on the northern side. In addition, there are two crossroads near to the community. Due to the community's location as well as traffic conditions, local residents enjoy convenient access to other parts of the city, but at the cost of more noise.

4.3.3 *Tai-ping-si*

Tai-ping-si is located in the west end of the city and very close to the riverside (Figure 4.18). This community has always been a relatively impoverished area of the city. In the past, many dockers lived there. Mr. Zhang, the director of the residents' committee of the community,

concluded that it was and remained a relatively poor neighbourhood with a series of problems left over by history.

Figure 4.18 Map of Tai-ping-si

(Source: Google Maps)

Figure 4.19 Tai-ping-si

(01/11/2016)

Today, the community has about 3,000 households and 10,000 residents in around 90 residential buildings. In terms of the residential buildings, it is a community with mixed apartment blocks of different style and age. Some of the apartment blocks were built around the 1960s and 1970s, and some after 2000 though most were built in the 1980s (Figure 4.19).

Those apartment blocks built in 2000 belong to a newer neighbourhood (*qian-jiang-yue ming-ju,* Chinese: 千江月名居) (Figure 4.20). The newer neighbourhood has eight apartment blocks and 240 households, and there are no activity places and outdoor facilities. According to Mr. Zhang, it used to be gated; however, it has become open because not every household of the neighbourhood wanted to pay the management fees, forcing the management providers to leave. In addition, the neighbourhood has a relatively low percentage of older residents.

The findings of observation show that: there is a gate guard room, but no security guard. At present, the room is filled with piles of junk. There are a number of signs that the neighbourhood is suffering from lack of management: the neighbourhood signs have fallen off and the trees as well as the grass have not been maintained for a while. What is more, while each apartment block has an access control system, some are broken.

According to Mr. Zhang and the researcher's observation, the socio-economic status of the residents is higher than those of the wider community. The newer neighbourhood has an

underground car park, and on a Sunday morning, there were about 30 cars parking on the pavement, and several were luxury models.

Figure 4.20 The newer neighbourhood in Tai-ping-si

(24/09/2016)

This section introduced the case study communities. All of the selected cases were old communities with relatively large number of older residents. However, there was a gap in terms of living environment among the three communities. Da-hu had the best quality outdoor environment, but the other two counterparts lacked adequate outdoor space and satisfactory facilities.

4.4 The decision-making structure

This section focuses on the decision-making structure for the development of urban built environment, such as urban renewal and community renovation projects. In particular, the discussion will pay attention to the roles of stakeholder groups of the government, residents, as well as residents' committee and community activists.

Generally speaking, stakeholder groups include the government, the developers, the general public and the third parties (Zhuang *et al*., 2019). Among these stakeholders, the developers play an important role in implementation of projects, but their decision-making might be influenced by concerns for profit (Li, Kleinhans and van Ham, 2018); parties including NGOs

and financial institutions also offer support (Liao, 2013). With respect to community renovation, the main stakeholder groups involved are the local residents, the residents' committee, and the government, in particular, the planning department (Kuai and Bai, 2015).

The general public, especially the affected residents, used to be excluded from decision-making process (Hui, Wong and Wan, 2008). More recently, the Chinese government has gradually delegated the power to other stakeholders, through building up mechanisms including public hearings and consultative meetings (Enserink and Koppenjan, 2007; Zhuang *et al*., 2019). However, it is argued that the institutions and social culture of China might challenge the promotion of stakeholders' participation (Yi *et al*., 2017), and people in China tend to hold negative perceptions of the value of their participation in decision-making (Zhuang *et al*., 2019). In socialist China, collectivism used to be the mainstream social value, but it is now challenged by individualism due to the country's opening up to Western cultural products, which will be discussed more in sections 6.4.3 and 8.3.1.

In the urban governance, the government still has the strongest voice in the decision-making process (He and Wu, 2005). In particular, government plays a dominant role in the decision-making process around urban development, especially those led or funded by government. The government may also indirectly influence other stakeholders. An example is that while the residents committee are supposed to represent local people and work on their behalf they need financial support from the government and may have to balance these claims (Kuai and Bai, 2015). Bureaucracy and too many governmental departments also create problems of co-ordination and a lack of shared objectives (Zhuang *et al*., 2019).

Since the WHO's age-friendly initiatives highlight older people's voice in decision making, and this study also foregrounds older people's points of view, then it is important to consider older people's role in shaping decisions about place. Taking the community renovation as an example, in old communities, Kuai and Bai (2015) identify that local residents tend to focus on their personal rather than the public interests of the community, which means their participation in community affairs is low.

Thus, in order to promote public participation in decision-making process, it is suggested that related specific laws and regulations need to define the functions as well as power of different stakeholders in the decision-making process (Zhuang *et al*., 2019). In particular, the community activists have been identified as an important force in the decision-making structure because these stakeholders, who tend to be retired older people "with education

background and social status may improve public participation" through collecting opinions from other residents and contacting governmental departments (Kuai and Bai, 2015, p.48).

This section discussed the roles of stakeholders in the decision-making process in relation to developmental projects of the city and communities. The government may always play a prominent role in the decision-making structure, while other stakeholder groups, especially the general public, are encouraged to participate more in the process. However, probably because of the influence of Western cultures, an increasing number of ordinary residents tended to focus on their personal interests, showing low interests in the public affairs of the city and their communities. Within the community, the residents' committee was supposed to protect local residents' benefits, but this institution's standpoint and performance in decision-making process might be subject to the influence of the government. The community activists were able to speak more for local residents' benefits and enhance the public participation in decision-making.

4.5 Summary

This chapter presented the context of Anqing as well as the case study communities. As a developing city, Anqing is experiencing fast changes in both social and physical environments. The government has invested in urban renewal and made some progress in offering better services for older people, including the project of constructing elderly care service stations. All of the selected case study communities were old with relatively large number of older residents. There was a gap in terms of living environment among the three communities, among which Da-hu had the best quality outdoor environment.

The government always play prominent role in the decision-making structure, while other stakeholder groups, especially the general public, are now encouraged to participate in the processes.

Chapter 5. Older people's use of outdoor spaces

5.1 Introduction

The purpose of this chapter is to answer two research questions, i.e., **how do we understand active ageing in China through older people's use of outdoor space?** and **how do places support older people's social connections?** This chapter will present older people's use of outdoor places both in urban public spaces and the three case study communities. Based on the findings, this chapter discusses active ageing in the Chinese urban context through exploring the place's role in supporting older people's activities and relevant issues, as well as older people's competence in pursuing better use of outdoor spaces and the challenges for them. The chapter concludes by considering the role of place in supporting older people's social connections.

5.2 Older people's use of urban public spaces

This section will present the results of observations of older people's use of urban public spaces. While the city government has embarked on a programme of facilities for older citizens, it directs its efforts to the needy and frail – by constructing care service facilities and providing care services. As discussed in the literature, an approach based on improvements to the physical environment, what is often called urban realm, may be more cost effective and reach a broader group of older people (Fitzgerald and Caro, 2014).

Outdoor space is an important element, which plays a critical role in providing "place" for older Chinese people's outdoor activities. Through extensive periods of observation, older people were frequently seen congregating and undertaking a range of activities in open spaces. Among these places, five were selected for detailed discussion. As shown in the map in Figure 5.1, these places include the Science and Technology Square, Linghu Park, a pedestrian street, the river bank and the University for the Third Age (U3A).

The selected five sites are representative places that are supportive of older people's outdoor activities because of two characteristics: first, these sites have relatively large open space in the downtown area with good accessibility; second, these sites are all free of vehicles, providing a safe environment for older people. Apart from this, the five sites are representative of activity places of different kinds. More specifically, the Linghu Park and the river bank are typical places that have good environment and facilities; the pedestrian street is a representative of places where older people might need to face potential conflicts, such as

electrical bikes and other younger customers; the Science and Technology Square is a typical case of large open space but with poor facilities; the U3A is a representative place that provides rich amenities for meeting older people's special needs for learning. In short, these five sites might be beneficial to broadening our understanding of older people's activities and needs of different kinds, as well as related issues.

At these places, observation, photography and field notes were used to record older people's activities there. In addition, at the U3A, the researcher conducted a focus group with students after their singing class, and then had an interview with the director of the U3A.
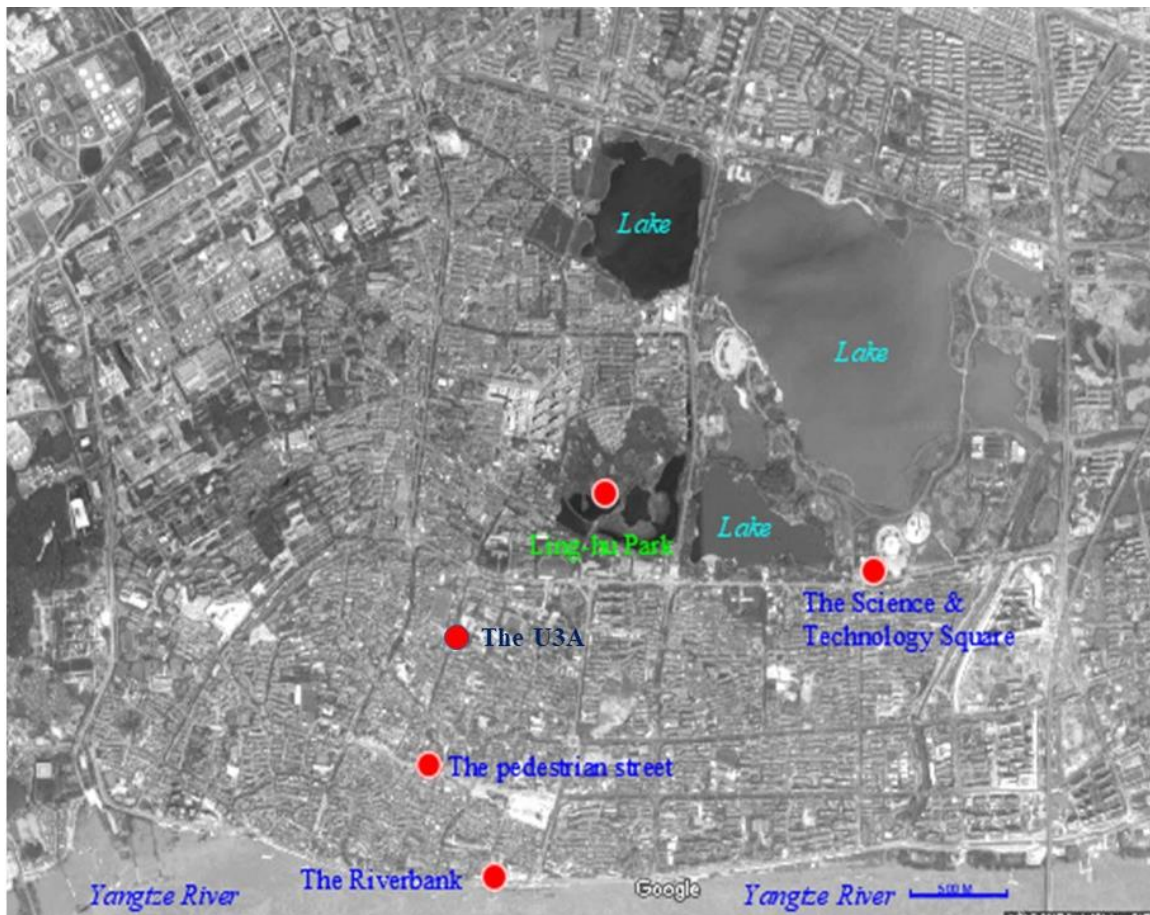
Figure 5.1 Selected sites of the city

(Source: Google Maps)

5.2.1 *Science and Technology Square*

As Figure 5.2 shows, the Science and Technology Square is where the Science and Technology Museum is located. Nearby are the gymnasium and another square. There is a large fountain on the western side of the square, surrounded by flowerbeds. The square is connected to Lianhu Park to its west, which is one of the two major parks in the downtown area, and a large lake to its north. People can get to the square by crossing the park or walking down the path from the lakeside. In addition, there is a main road of the city (South Linhu Road) as well as a bus stop to the south of the square, which makes the square easily accessible.

However, there are no seats. In other cultures, this might make a space unusable or less usable for older people, but it is common, as observed here, for older people to simply bring their own folding chair, although some of them chose to sit on the kerb edge of the flowerbed.

Figure 5.2 Map of Science and Technology Square

(Source: Google Maps)

Of the two squares, the Science and Technology Square is the most frequented by older people, who were found sitting and talking, playing traditional musical instruments and singing, playing cards and chess and dancing. The pavement adjacent to the square is also used by older people to play musical instruments and play cards and chess. In the afternoon,

groups of older people sit together to watch the performance of the Huang-mei Opera by local troupes (Figure 5.3-b).

There are two or three local Huang-mei Opera troupes that perform on the square. The city government built a stage there in 2014, which is shown in Figure 5.3-a, and it may be used by any individual or team for free on application (Jiang and Lei, 2014). In addition, some troupes bring their own mobile stages. Again the stage has no seats or tables so older people provide their own or perch on the flowerbed edge presumably with less comfort.

On the pavement on the western edge of the square, other older people play cards or sing in groups. Similarly, they all need to bring seats and tables. But, older people's activities on the pavement can cause some inconvenience to pedestrians; for instance, as Figure 5.3-c shows, the pavement of South Linghu Road is about 7 m in width, but a group of older people who are sitting and playing cards there would occupy at least one-third of this.

Figure 5.3 Older people engaging in sitting and talking, watching Huang-mei Opera performances, playing cards on or around the Science and Technology Square

(04/11/2016)

5.2.2 *Linghu Park*

Linghu Park (Figure 5.4) is the largest park in the city, covering an area of 4.5 km^2. It was built in 1911, making it the oldest garden area in the province. The park was constructed around a big lake, and has a huge green space including lawn and trees of great variety. Several historical and cultural sites are located in the park as well, such as several memorial halls of local revolutionary martyrs, as well as art galleries. Because of the pleasant natural and man-made landscape, the park has always been one of the favourite recreational places of local citizens.

Figure 5.4 Map of Linghu Park

(Source: Google Maps)

Every day, a large number of older people go to Linghu Park for activities such as dancing and sports (Figure 5.5). Basically, the park offers different sites for various outdoor activities. These include open spaces that provide a place for dancing; pavilions that offer opportunities for musicians and singers as well as for resting and talking, a large sports square with some facilities, such as ping-pong tables and badminton courts, available to older people as well as other visitors. This place seems to be frequently used by a large number of older sports lovers.

The park provides plenty of seats, and older people may either sit on the stone seats, or sit on long chairs at the lakeside.

Figure 5.5 Older people's activities in Linghu Park

(26/11/2016)

5.2.3 *Pedestrian street*

This pedestrian street (as shown in Figure 5.6-a) is located in the city centre. Traditionally, this area used to be the most prosperous and bustling downtown area of the city. However, with the more recently built shopping malls in other parts of the city, the old city centre is experiencing decline. A redevelopment of the pedestrian street was completed in 2015, aiming to increase its attractiveness and vibrancy. The project mainly involved the construction of an underground shopping mall, resurfacing of the road and painting and external cladding of buildings, as well as the creation of green space and recreational facilities. Moreover, the street offers several open spaces and resting areas, where seats (as shown in Figures 5.6-b), a flower bed and a pavilion are provided.

From talking to locals, the researcher found that the customer decline was due to the strict policy of banning any vehicles from entering the pedestrian area with gates at the entrances of the street, controlling access. In Anqing, as well as in other Chinese cities, many people travel via electric bikes; thus, access to such bikes has significant influence in traffic flow with people preferring to shop in an area where there is decent cycle parking. In August 2016, the

city government made the street accessible to vehicles other than cars – for instance, electric bikes – in order to ease traffic jams on surrounding roads and improve flow (Chen, 2016). Nowadays, based on observation, more customers are seen on the street than in the past. However, parked electric bikes are now found to create hazards to pedestrians.

Figure 5.6 The pedestrian street

(07/01/2017)

A number of older people are observed to congregate on the steps under the glass atrium of the entrance, in part blocking the stairs used by shoppers. Particularly on cold and showery days, the researcher found several groups of older people sitting and playing cards, while others were standing and talking outside the entrance (Figure 5.7). Needless to say, the atrium was not constructed to be an activity place for older people. However, it provides shelter in bad weather; thus, this place has been colonised by older people.

Figure 5.7 Older people playing cards at the gate of the underground shopping mall

(07/01/2017;Photos taken by author on a cold and rainy day)

On warm and sunny days, the researcher found older people used the open space in the street, rather than the steps, and the area of activity broadened out. In an open space in the centre of the street, older people sit and talk; at a pavilion, older people play musical instruments and sing (Figure 5.8-a); a group of older people play cards at the doorstep of a stock exchange building. These places do not offer seats, thus older people bring their own, but the pedestrian street provides seats in other places; as Figure 5.8-b shows, older people sit there to rest or talk. The seats in the pedestrian street were built in various forms; some of them are integrated into flower beds, some are curved, and none of them have a backrest. These seats were designed to beautify the pedestrian street, and while their installation might make it easier for older people to stop and socialise, the lack of a backrest in their design creates discomfort.

Figure 5.8 Older people sitting and talking,

playing musical instruments and singing on the pedestrian street

(22/09/2016; Photos taken by author on a warm and sunny day)

5.2.4 *Riverbank*

The riverbank park is situated along the Yangtze river in the south of the downtown area. The bank forms a ribbon-shaped space (Figure 5.9) which offers a unique recreational place for citizens. Compared with the other open spaces of the city, the riverbank may provide a more pleasant environment. On summer evenings there would many older people sitting or walking

on the bank to enjoy the cool breeze from the river. The riverbank park is equipped with outdoor facilities and seats, tables, pavilions and fitness facilities.
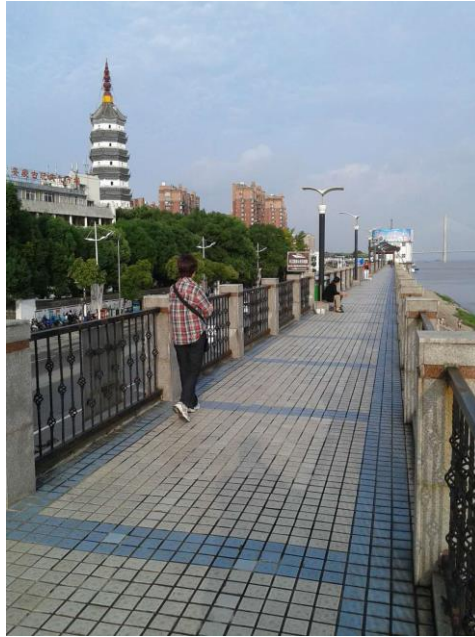
Figure 5.9 The riverbank

(28/09/2016)

Figure 5.10 Older people working out and playing with grandchildren at the outdoor gym

(28/09/2016)

At the outdoor gym, as Figure 5.10 shows, older people may use a variety of fitness facilities, and some parts of the gym area are paved with soft rubber mats. Moreover, the outdoor gym

is also a place where older people can play with their grandchildren, and in the meantime, they can also have the opportunity to talk with others.

The Fen-yan Pavilion (Chinese: 焚烟亭: *fen* means "destroy" and *yan* means "opium") is another place where older people often congregate. The pavilion was built in the 1980s to commemorate a historic anti-opium movement of 1912. There is a large platform around the pavilion; hence, older people may undertake various activities there. Basically, in the morning, a large number of older people do their morning exercises, which mainly includes dance of different kinds, such as the traditional Chinese sword dance (as shown in Figure 5.11-a), and western ballroom dance (Figure 5.11-b). Inside, older people often play cards (Figure 5.11-c).

Moreover, spaces near to the pavilion have been identified as places where older people rest and talk, and can enjoy the fresh air, pleasant breezes and wonderful river view in these spaces near to the river. In particular, some places shaded by trees have become very popular with older people who want to talk in the open. The space on the riverbank seems to be part of some older people's everyday life; for example, the two women who were sitting on the steps, as shown in Figure 5.11-d, were trimming vegetables for cooking and talking there after buying food from the nearby market in the morning.

Figure 5.11 Older people dancing, playing cards and talking around the Fen-yan Pavilion

(13/09/2016)

5.2.5 *University for the Third Age (U3A)*

The city's University for the Third Age (U3A) is located in the area of the city centre (Figure 5.12). The university has four teaching buildings and 18 classrooms. These buildings, as well as the teaching facilities, are provided by the city government. At present, there are approximately 2,000 students in 49 classes at the university.

Figure 5.12 University for the Third Age, Anqing

(23/11/2016)

The university has a gate and walls, and the campus is behind a large governmental office building; therefore, it has a quiet environment, despite its close location to the bustling city centre. The campus is very clean and tidy, and its walking routes are smooth and free of obstacles. There are well-maintained bushes and trees of different kinds across the campus (Figure 5.13). Moreover, several ramps, accessible stairs and handrails are provided on campus, making older people's mobility easy (Figure 5.14). Several new fitness facilities are offered near teaching buildings. There is a separate recreational platform with railings between buildings (Figure 5.15). Trees were planted in the middle of the platform. Also, seats and tables are provided there. In addition to toilets in the buildings, there is also an outdoor toilet. The outdoor toilet is clean and accessible to disabled older people.

Figure 5.13 U3A campus

(23/11/2016)

Figure 5.14 Accessible facilities on campus

(Source: author)

Figure 5.15 The recreational platform

(11/11/2016)

The arrangement inside the teaching buildings reflects special consideration for older people. For instance, the flooring of the teaching buildings is made of porcelain tiles and it is then covered with non-slip carpet (Figure 5.16). The classroom floor is made of non-slip tiles. Apart from desks, seats and lights, all classrooms are equipped with electric fans, air conditioning, television screens and acoustic equipment. Some classrooms have a piano for singing classes (Figure 5.17). Nevertheless, there is no accessible elevator inside the teaching buildings.
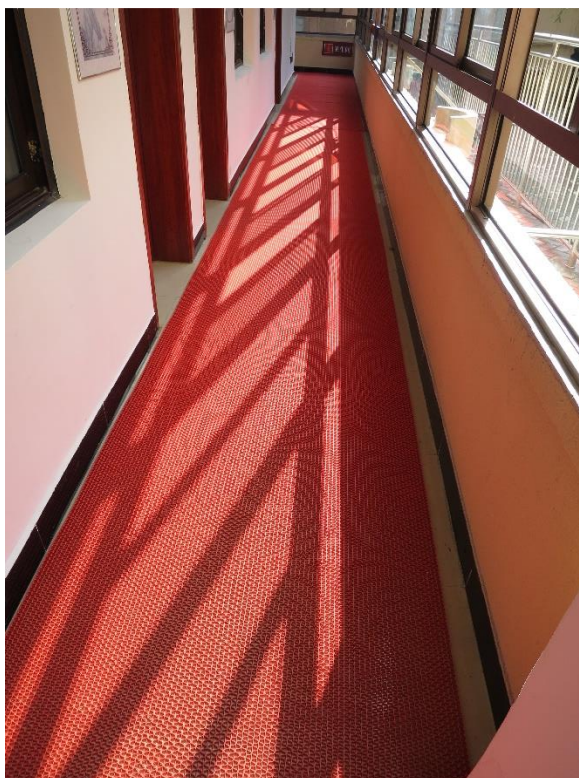
Figure 5.16 Carpet on the floor of a teaching building

(11/11/2016)

Figure 5.17 U3A students in a singing class

(23/11/2017)

5.3 Older people's use of community outdoor spaces

This section focuses on older people's use of outdoor spaces within the three case study communities. After presenting the places where older people frequently engage in activities of different kinds, an analysis will be conducted based on the findings of observation.

5.3.1 *Da-hu*

The observation work conducted in Da-hu identified more than ten places where older people were found to be frequently engaging in activities. These are marked in Figure 5.18.
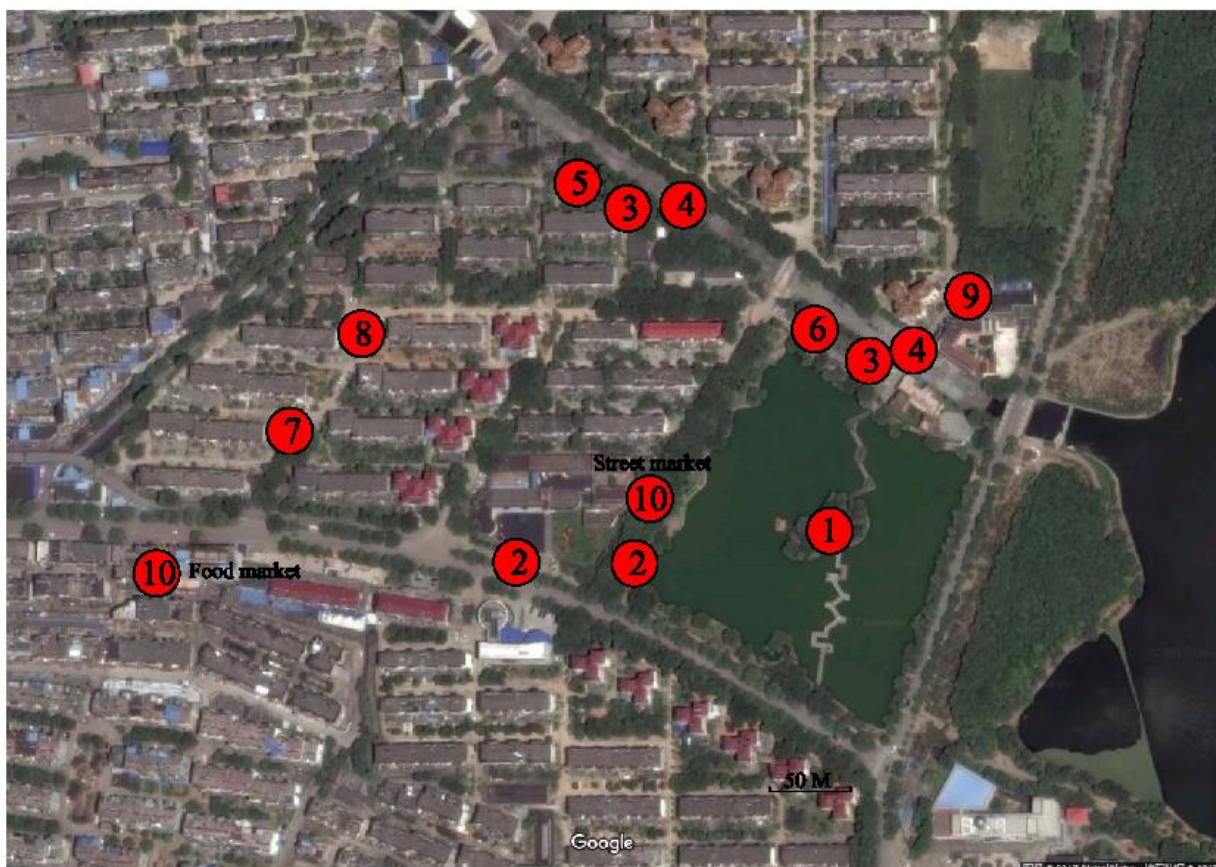
Figure 5.18 Places in Da-hu

(Source: Google Maps. Note: 1. Lake park; 2. Pavements; 3. Fitness areas; 4. Concrete slab; 5. Croquet court; 6. Covered walkway; 7. Recreational platform; 8. Raised flower beds; 9. Open space in front of the activity centre for older people; 10. Food market and street market)

(1). Lake park (including lakeside and island)

The lake park (as shown in Figure 5.19), which was built by the petro chemical enterprise in the early 1980s, is located in the centre of the community. The man-made lake covers a water area of 27,200 m^2. There are plenty of trees and grass at the lakeside and on the island, making the lake park more environmentally friendly and attractive. On the northern side of the park there are the University for the Third Age, an outdoor gym as well as a covered walkway.

Figure 5.19 The lake park

(05/11/2016)

There is a bridge that connects the northern and southern lakeside, so people can get to a man-made island built in the centre of the lake. Some seats are provided on the bridge. The island takes up an area of 1,900 m^2. There are two pavilions, where seats are provided. In addition to grass and trees, there is hard landscaping on the island also. Apart from being a link, the bridge also provides space for activities due to its twisty shape.

The northern, western and southern sides of the lake have more activity spaces than the island, and provide more than 20 seats and 15 tables. The lakeside was designed to integrate green space into the pathways and recreational facilities; for example, as Figure 5.20-a shows, on a raised platform where grass had been planted a long chair was set under two trees, creating a beautiful landscape for the lake park and a better view of the lake for people who sit there. Moreover, a large area of grass and plenty of trees were planted along the pathways, creating an accessible green space. In addition, fixed stone tables and seats are provided as well; for instance, a stone table is always surrounded by four seats, however, the researcher found several of them broken, and some were missing (Figure 5.20-b).

Figure 5.20 Spaces and facilities at the lakeside

(28/11/2016)

Compared with the island, the lakeside provides more spaces for a variety of activities. Older people come and sit on the fixed stone seats or their own seats and talk, and some other individuals sit on the long chairs and enjoy the view of the lake. At some relatively quiet places, some older people focus on fishing. The researcher frequently found that the majority of stone tables and seats were occupied by older people who played cards. Moreover, the lakeside is the ideal place for working out, especially in the early morning; a large number of older people do morning exercises such as tai chi.

(2). Pavements

Two pavements were identified as popular places for older people's activities. One pavement (9 m in width, 80 m in length) is located in front of a kindergarten (as shown in Figure 5.21-a), and the other one (7.5 m in width, 180 m in length) is next to the western lakeside (as shown in Figure 5.21-b). Both the pavements had trees bordering them, but the one next to the lakeside had more and provided more shelter. Hence, the kindergarten area seemed more popular for sitting and talking on cold winter days, but older people move to the lakeside for greater shade and cooler air in summer.

Figure 5.21 The pavements

(02/11/2016)

(3). Outdoor gyms

There are two outdoor gyms provided for local residents in this community. One covers an area of about 280 m^2 (Figure 5.22-a), and the other one, located near the north side of the lake, is 150 m^2 (Figure 5.22-b). Both have various outdoor fitness equipment, such as uneven bars, double bars and a ski walker. The central government published the *Regulation on National Fitness* ("全民健身条例") in 2009, requiring that parks and neighbourhoods should arrange outdoor gyms based on individual conditions and local governments should provide free fitness equipment to the public. At the end of 2013, there were approximately 3.3 million pieces of outdoor fitness equipment in China (Lin and Yang, 2017). The outdoor gyms are open to all people, but older people were more frequently found to be working out there. According to the findings of the fieldwork, nearly every community in Anqing has a specific outdoor gym, and even some old neighbourhoods with limited outdoor space such as Rong-sheng are carrying out projects to build outdoor gyms.

Figure 5.22 The two outdoor gyms (28/11/ 2016)

(4). "Big concrete slab"

The so-called "big concrete slab" is actually a paved square, which is 360 m in length, and 14 m in width, providing a large open space for a range of outdoor activities to older people (Figure 5.23-a). A community road goes through the slab, dividing it into eastern and western parts. Local residents call this place the "big concrete slab" because, underneath the slab, there is a sewage ditch crossing over the community (as shown in Figure 5.23-b). In the past, there were no measures taken against the negative impact of sewage, but after the concrete slab was built by the petro-chemical enterprise, the situation was significantly improved: the sewage ditch is now covered, improving the environment and creating activity spaces. Nonetheless, there are no recreational facilities provided on the slab, such as tables and seats; thus, older people need to bring seats if they want to sit there.

Fig. 5.23-a   Fig. 5.23-b

Figure 5.23 The "big concrete slab"

(08/11/2016)

(5). Croquet courts

There are two croquet courts in the community. One court is next to the bigger sports square (Figure 5.24), while the other one is located in the southern part of the community. Both are 17 m in width and 21 m in length, and equipped with seats and a shelter. The courts are bordered by fences. The croquet courts were built and managed by the petro-chemical enterprise; hence, according to the community management, only retired staff of the enterprise are entitled to the use of the court.

Figure 5.24 The croquet court

(02/11/ 2016)

(6). Covered walkway

The walkway is located near to the northern side of the lake. It is covered with a large transparent structure. A vine winds around the structure of the corridor, creating a shelter. A large group of older people played Chinese chess there every afternoon (as shown in Figure 5.25). These older Chinese chess lovers make the walkway their fixed activity place, and it was frequently observed that the place was colonised by chess tables and seats, brought there by the older people.

Figure 5.25 The covered walkway

(02/11/ 2016)

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(7). The recreational platform

A raised platform is located between residential buildings in the west of the community. The platform is about 14 m in length and 9 m in width. Several steps were built to make the space easily accessible to residents (Figure 5.26). In addition, the platform was paved with bricks, and it is bordered by a fence in order to protect users from falling. A table and several stone seats are provided, and a shrub and a large pine tree have been planted. The place provides a pleasant activity space for residents who live nearby.

Figure 5.26 The recreational platform

(11/11/2016)

(8). Raised flower beds

Four round raised flower beds are located in an open space in the west of the community, and a camphor tree is planted in each of them. According to local regulations, parking is prohibited in the surrounding area. The eye-catching white signs on the ground telling drivers not to park, shown in Figure 5.27, seem to have worked, given that parked vehicles were never seen there. However, local people said that the space used to be a big problem, but effective community management had provided a solution. Clearly, community management plays a critical role in protecting older people's activity places from being occupied by cars.

Figure 5.27 The raised flower beds

(05/11/2016; 08/11/2016;Note: the bold white characters mean "Parking Is Prohibited")

(9). Open space in front of activity centre for older people

There is a relatively large open space in front of an activity centre for older people. The activity centre, as Figure 5.28 shows, is a four-storey building, and is open to retired staff of the petro-chemical enterprise. The open space covers approximately 625 m^2, and it is a relatively secluded place, for the square is surrounded by buildings and walls.

Figure 5.28 Open space in front of the activity centre for older people

(07/01/2017)

(10). Food market and street market

Figure 5.29 Hua-ting food market after renovation

(28/11/2017)

There is a large indoor food market (Hua-ting market) that was built in the early 1990s close to the community (as shown in Figure 5.29). At present, an environmental improvement project is going ahead. Before this, the market was dirty and disorderly, as revealed in news reports following the reporters' visits and enforcement actions by urban management officers (Lei, 2016; Shen and Dai, 2016).

In addition to the indoor market, there is a street market near the western side of the lake (Figure 5.30). The length of the street market is about 150 m. According to the management requirements, street vendors are only allowed to take up the western pavement, and they are also required to set up their street stalls between midday and 6.30 pm. Apart from this, vendors are also required to clean their stalls before shutting and are prohibited from selling or slaughtering fowl.

Based on the researcher's observations, the street vendors basically complied with the orders. But, nonetheless, the large number of people who patronised the street market impacted negatively on traffic. Furthermore, the researcher also found that some vendors put their stalls on the road, making the traffic problem worse.

Figure 5.30 The street market, Da-hu

(28/11/2016)

5.3.2 *Rong-sheng*

Rong-sheng is an old, open community. There are institutions such as a hospital and a kindergarten as well as commercial facilities such as shops and a street market in the community.

Compared with Da-hu, the outdoor space in Rong-sheng is relatively small, due to the high building density (Figure 5.31). However, after conducting repeated observations in the community, the researcher identified several places where local older residents congregated and used frequently for activities.

Figure 5.31 Places in Rong-sheng

(Source: Google Maps. Note: 1. Pavements; 2. Spaces between residential buildings; 3. Street market; 4. Newly constructed fitness area (where there used to be a flower bed))

(1). Pavements

The pavements of the community were observed to be the places where older people congregated and played cards and chess (as shown in Figure 5.32). The pavements identified are not wide, no more than 1.5 m across. These activity places are close to the community road, which is also not very wide (approximately 5 m in width); so, older people's activities are close to traffic and therefore these are spaces that put older people at risk subject to traffic conditions.

Figure 5.32 Older people playing cards on the pavement

(03/11/ 2016)

(2). Open spaces between residential buildings

Compared with the pavements adjacent the community road, those that are located in the open space between residential buildings create a safer and quiet place for older people's activities (Figure 5.33). In contrast to Da-hu, older people of Rong-sheng were forced into left over spaces though that can also be seen as older people being resourceful in using what was available.

Figure 5.33 Spaces between residential buildings

(31/12/2016; Note: photo at right was taken in front of the kindergarten)

(3). Street market

Rong-sheng is an open community, and there is a street market in the eastern part (Figure 5.34). It is approximately 160 m in length. Here food vendors mainly sell vegetables, meat, fruit and seafood. By comparing food prices with those of the market near Da-hu, it was evidently a cheaper place to shop.

Figure 5.34 The street market

(12/09/2016)

However, the vendors take up nearly both sides of the street (Rong-sheng Street), and the road surface near the seafood vendors is frequently very dirty, and garbage left by vendors could be seen at the side of the street (as shown in Figure 5.35).

Figure 5.35 Some parts of the market are not clean

(31/12/2016)

(4). The outdoor gym (where used to be green space)

Overall, the green space of the community is insufficient, because the concrete road and pavement have taken up the majority of the outdoor space (Figure 5.36). At the time of conducting fieldwork (September 2016–January 2017), trees were the main element of local green space, while grassed areas were few and in poor condition. Many lawns only had sand and no grass at all, while some flower beds had become weed-infested (as shown in Figure 5.37).

Figure 5.36 Concrete road taking up majority of outdoor space

(09/09/2016)

Figure 5.37 Green space in the community (12/09/2016)

For this community, however, the lack of outdoor activity space was a more pressing issue that the lack of green space. The focus group suggested replacing some green space, for instance, a flowerbed, with more outdoor activity space. The flowerbed is located in an open space between the residential buildings of the community, and several trees were planted in it. This space around the flowerbed could not be used, because cars were found to be frequently parked there. Before July 2017, the flowerbed and the trees had been removed and outdoor fitness equipment had been set up there (as shown in Figure 5.38). Apparently, the removal of the green space did enlarge the outdoor activity space. In the meantime, several bollards were put up, preventing cars from parking.

Figure 5.38 Space around flower bed before and after refurbishment project

(Note: photo at left was taken in September 2016 by the researcher, showing the space around the flowerbed and trees; photo at right was in November 2017, showing that the flowerbed and trees had been replaced with fitness equipment after the refurbishment project, and the road condition had been improved as well)

5.3.3 *Outdoor spaces in Tai-ping-si*

The structure of Tai-ping-si is relatively loose. First, there is an ancient city wall and an urban road (Yu-hong Street) crossing the community, separating a neighbourhood (Long-men neighbourhood) from the other neighbourhoods. Second, it is a community with a mix of gated (such as, Qian-jiang-yue neighbourhood) and open neighbourhoods (such as, Yue-cheng neighbourhood).

Hence, compared with Da-hu, there is no community centre. Because of the loose spatial structure, the places for older people's activities were distributed more randomly (Figure 5.39).

Figure 5.39 Places in Tai-ping-si

(Source: Google Maps; Note: 1. Fitness area behind ancient city wall; 2. Flowerbed behind ancient city wall; 3. Spaces between residential buildings; 4. Large flower bed where cars were parked)

(1). Space behind ancient city wall

The community has a part of the remains of the ancient city wall, which runs along an urban road that crosses the community (as shown in Figure 5.40). The ancient city wall was built more than 800 years ago when the city was being constructed, during the Song dynasty, and it was rebuilt in 1862 during the Qing dynasty. After 2000, the city government repaired the remains based on a specific plan. The length of the ancient city wall is approximately 200 m, and there are stairs and paths that lead to the top. One neighbourhood (Long-men, 龙门小区) is connected to the top of the city wall. The wall separates the Long-men neighbourhood from the outside urban road; thus, it thereby creates a quiet and safer space for local residents.

Figure 5.40 Ancient city wall

(01/11/2016)

There is a footpath along the top of the city wall. Seven pieces of outdoor fitness equipment including bars and a tai chi spinner are set up there (Figure 5.41). On a warm and sunny day in winter, the researcher found this space taken up by clothes and quilts that were being aired there, and some quilts were even being aired on the equipment. While this made them inaccessible, they were not overly frequented and seemed largely forgotten.

Figure 5.41 The outdoor fitness space

(30/12/2016; Note: photo at right shows clothes and quilts being aired in the space)

This is the only outdoor gym and is located in the eastern part of the community, so many older people have to walk a distance, cross a busy road and climb up the steps to get to the top of the city wall to use it. Needless to say, for many of the local older people, this space is not convenient. This was confirmed by the findings of the focus group: initially when we discussed outdoor fitness space, none of the participants mentioned the existing outdoor gym

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until one older man reminded us of it. The participants of this focus group wanted fitness equipment to be set up around the flowerbed in the western part of the community, and some even suggested that the space at the foot of the city wall should be renovated as a setting for fitness equipment.

At the time of the focus group, renovation work was being carried out, and the space at the foot of the ancient city wall was under improvement (Figure 5.42-a,b). But, nonetheless, the result was not what the older people were expecting. The old, broken seats and tables were taken away and replaced with a lawn, path and trees to improve the city view (Figure 5.42-c,d).

Figure 5.42 The space at the foot of the ancient city wall before and after renovation work

(01/11/2016; 22/11/2017)

A flowerbed is next to the outdoor fitness area, and a large pine tree is planted in it (Figure 5.43). An activity place is created by the circular open space between the flowerbed and its

surrounding lawns and trees. Some seats are provided there as well. However, it was also noted that part of the space was occasionally taken up by airing quilts also.

Figure 5.43 The flower bed and its surrounding space

(30/12/2016)

The pavements here were identified as the place where older people frequently engaged in activities, such as playing mahjong, sitting and talking (Figure 5.44). Moreover, due to the lower traffic levels, some older people even sat and talked at the edge of the community road (Figure 5.45).

Figure 5.44 Older people playing mahjong on the pavement

(30/12/2016)

Figure 5.45 Some older people sitting and talking at the edge of the community road

(30/12/2016)

(2). Spaces between residential buildings

Local older people were often seen congregating in the spaces between residential buildings and sitting, talking or playing cards (Figure 5.46). The space ranges from the doorsteps to the lawn.

Figure 5.46 Four places identified in the spaces between residential buildings

(30/12/2016)

(3). Doorsteps and open space around flowerbed

The doorsteps of the residential buildings were identified as activity places; for instance, doorsteps that are near to a large flowerbed were used for chess and sitting (Figure 5.47). However, these spaces are very small.

Figure 5.47 The space of doorsteps

(30/12/2016)

Findings of observation show that apart from the public places of the city, many older people use the spaces in their own community for outdoor activities. These activities include walking, working out (often with outdoor sports facilities), sitting and talking, playing cards and Chinese chess, playing the *er-hu* and singing Huang-mei opera, dancing and so on.

In the three case study communities, the researcher conducted intensive observations, looking for places where older people were doing activities, what they were doing and how many people were there. The results for each community are presented in the following three tables (Table 5.1-5.3):

Table 5.1 Activities Observed at Places in Da-hu Community (Note: ○ = 2 ≤n<5 ◑ = 5 ≤n <20 ● = n≥20)

Places / Activities	West side of lake	North side of lake	Pavement next to west side of lake	Pavement in front of the kindergarten	Island or bridge of lake park	Outdoor gym of Old North Da-hu neighbourhood(the bigger one)	Outdoor gym at north side of lake(the smaller one)	Big cement slab	Square of activity centre for older people	Croquet court	Covered walkway	Activity platform	flower bed	Food market and street market
Sitting and talking	●	●	◑	●	◑			●				◑	○	
Walking			●					●						
Working out				◑	◑	◑	◑							
Dancing					●	◑								
Practising Tai Chi or *qi-gong*		○		◑	◑	◑		◑	◑				○	
Playing musical instrument or singing	●	●			◑									
Playing cards and chess	●	●						◑	●		●	○		
Fishing	○	○			○									
Playing ball games			◑					○		●				
Shopping and Talking														●

Table 5.2 Activities Observed at Places inf Rong-sheng Community (Note: ○ = 2 ≤n<5 ◐ = 5 ≤n <20 ● = n≥20)

Activities \ Places	Pavement of community	Open space between residential buildings	Open space in front of kindergarten	Outdoor gym	Street market
Sitting and talking	○	○	○		
Playing cards and chess	●	◐	◐		
Working out				○	
Shopping andTalking					●

Table 5.3 Activities Observed at Places in Tai-ping-si Community (Note: ○ =2 ≤n<5 ◐ = 5 ≤n <20 ● = n≥20)

Activities \ Places	Open space on ancient city wall	Flowerbed on ancient city wall	Outdoor gym on ancient city wall	Open space between residential buildings	Pavement of community
Sitting and talking	◐	○		◐	
Working out			○		
Playing cards and chess	◐			◐	◐

The comparison between the three tables shows explicitly that older people in Da-hu took part in a much greater range of activities than their counterparts in the other places. In Da-hu, there was a greater range of spaces available to residents, and this was partly driving a greater range of activities, but, nonetheless, there were different traits among these places.

Some places are clearly "beauty spots", and these spaces attracted older people not only because of the space they provided, but also due to their unique and pleasant environment. For instance, the lake park including the lakeside, as well as the island, attracts hundreds of older people to undertake a great variety of activities every day, such as sitting and talking, singing, playing the *er-hu*, playing cards and chess, fishing and working out. The lake offers a beautiful waterscape. Anqing's summer can be very hot, for it is a city in the northern subtropical zone, and a large body of water provides local residents with a refreshing environment in hot weather. The interviewees reported that they loved having a walk along the lakeside after dinner in summer to enjoy the refreshing air.

Some other places have definite purposes; for example, the outdoor gym was built to meet older people's needs for working out, thus, there is always some essential outdoor fitness equipment, such as the parallel bars and Ski Walker. Some places play multiple roles in outdoor activities; for instance, one outdoor gym in Da-hu serves not only as a place for working out, but also as a space for dancing and practising Tai Chi. In contrast, the one near the lakeside is smaller and does not attract multiple activities.

Interestingly, the initial purpose of making these multifunctional places seemed to have nothing to do with providing for older people. For instance, the pavement in front of the kindergarten in Da-hu is not only a thoroughfare, but also the most welcome open space for older people. The most common activity that older people did on the pavement was sitting and talking, followed by working out and practising Tai Chi.

Why does the pavement in front of the kindergarten attract so many older people? Firstly, it offers a relatively large open space; especially for the very old, talking with peers is the overarching leisure activity in their later life. If the pavement is wide enough, older people prefer to sit and talk. If there are no seats available then they bring their own. Talking in groups takes place frequently in front of the gate of the kindergarten, and always reaches its peak in the afternoon (around 3 pm) every day. Drawing upon the results of interviews, other attractive features emerge. First, older people can take shelter from the wind because of the walls of the kindergarten. Second, older people love basking in the warm sunshine, especially

in cold weather, and the pavement faces south. In short, the place is a suntrap. Thirdly, compared with the pavement on the west side of the lake park, the one here is quieter, for there are always groups of older people who play musical instruments and sing at the lakeside in the afternoon, and the street market is another factor in creating lakeside noise.

In contrast, in Rong-sheng and Tai-ping-si, shown in Tables 5.2 and 5.3 respectively, there is a much smaller range of spaces, some of which, like the pavement, are temporarily repurposed by older people for their activities. Rong-sheng offers the smallest amount of activity spaces, and older people living there only have sedentary activities such as sitting and playing cards and chess; while the situation of Tai-ping-si is able to provide relatively more purposed spaces for outdoor activities, such as the sports square and flowerbed. Therefore, local residents can carry out a slightly greater range of activities, but not as rich as those in Da-hu.

This section presented outdoor spaces in the three case study communities where older people were observed to engage in activities of different kinds. In short, it can be discovered from comparing the three tables of results of observations (Table 5.1-5.3) that older people can undertake a greater range of activities partly due to a much broader range of spaces, some of which are scenic spots and some of which are purposed, and some of which are multifunctional. In other words, a greater range of spaces stimulates a broader range of activities. With regard to the kinds of activities, it can be identified that most of older people's outdoor activities were related to recreational or physical ones, and older Chinese tend to take part in collective activities. The next section will explore the drivers for these activities.

5.4 Drivers for activity: Why do older Chinese keep doing outdoor activities?

This section discuss the major reason for older people to go out of home and participate in outdoor activities. Findings of observation in urban public spaces and communities show that older people in China loved engaging in a wide range of activities in outdoor space. Drawing upon the interviewees' responses, two major factors that drive older people to undertake activities in places can be derived: keeping healthy and keeping socially connected.

5.4.1 *Keeping healthy*

The majority of outdoor activities could be viewed as physical activities, for instance, dancing. The findings of observation show that this activity has obvious gender-biased features. In Da-hu, as well as some other places in the city, such as parks, the riverbank and the Civic Square, nearly all those who dance are women. Engaging in physical activities is significantly associated with physical health (Zhou and Ren, 2018). Moreover, there is medical evidence showing that dancing may be beneficial to physical and psychological well-being. For example, based on reviews of quantitative outcome studies between 1970 and 2002, scholars have identified that dancing is helpful in preventing social isolation and loneliness among older people (Cattan *et al.*, 2005).

"*Being healthy is the capital for us, and that's more important than any other things.*"

(Ms. Hu, 65, leader, Rong-sheng dance team)

Older people try to keep healthy physically and mentally, and believe that engaging in activities will deliver health. Health has been identified as one of the influential elements of older people's QoL (Bowling and Stenner, 2011). Health issues may cause financial difficulties as well, as ageing increases the cost of public health (Westerhout, 2006; Hsiao and Heller, 2007; Colombier, 2018) due to higher incidence of chronic-degenerative diseases and a greater demand for health and social care (Lopreite and Mauro, 2017). Older Chinese are facing more challenges in accessible healthcare because of the country's healthcare insurance system (Li and Zhang, 2013).

Some specific places have been created to support people's physical health; for instance, the outdoor gym and croquet court, where related facilities are provided. These places are usually seen in the centres of communities, stadia, parks or some open spaces of downtown areas. However, the city has a limited number of these, and not every older person wants or is able to undertake activities there. These older people who want to do physical exercise need to look for other outdoor spaces. Some very old or frail people tend to choose light exercises, such as Tai Chi, near their homes. Many more older people with higher mobility prefer to do other activities; for example, working out at outdoor gyms using fitness facilities.

Being mentally healthy is another driver for activity. Compared with some physical activities, mental activities may need less space. The most common activities of this kind are playing cards and chess. These activities can take place in nearly every outdoor space, such as the pavement, a pavilion or the corner of a square. Sometimes, especially in bad weather, older people even colonise some unauthorised places, such as the stairs of underground shopping malls, to undertake these activities. In most cases, they need to bring their own seats and tables, but some places provide these facilities; for instance, the park.

5.4.2 *Keeping socially connected*

Social capital is strongly linked to subjective well-being (Helliwell and Putnam, 2004). There is a positive relationship between older people's well-being and social networks (Okun *et al.*, 1984; Helliwell and Putnam, 2004; Diener *et al.*, 2003). Talking is obviously an activity that could promote socialization. Older people's sitting and talking often takes place in outdoor spaces. This activity is welcomed by older people; even those with low mobility will go to these places and talk with others in wheelchairs.

Based on observation as well as interviews, the times and places for this activity are usually fixed. Apart from the places for sitting and talking, older people's other outdoor spaces are overwhelmingly dominated by collective activities, such as playing cards and dancing, which give them opportunities to talk. Furthermore, some older people may also get opportunities to talk in some places when they are not doing any activities; for example, when they are watching their grandchildren playing at the outdoor gym, they can frequently meet their counterparts at the same place.

Older people out walking were found frequently across the city, and most of the interviewees talked about walking as an everyday activity. Furthermore, the findings of the interviews show that walking is always at the top of the list of favourite outdoor activities of older people.

"*I insist on walking for no less than 300 days a year…. we [old friends] walk back and on the way home we talk, and we talk about everything, from President Xi Jinping to society, such as*

the community committee's director; anyway, we talk about all things at all times and in all countries… and we feel very happy on the way home."

(Mr. Wang, 72, Tai-ping-si)

For older people, walking was related not only to a commitment to daily exercise but to the opportunity for social interaction. In particular, many have a habit of taking a walk after dinner. Furthermore, some enjoy talking with others when walking together, and sometimes they also expect to meet some friends while walking around. Hence, the pavement also plays an important role in providing space for older people's social connections. Thus, the design of the pavement may need to take this into consideration; for instance, adding more lights on it will not only secure older people's walking at night, but also create more places for their social interaction.

Therefore, older people can keep and develop their social connections through a great variety of activities in different outdoor places. Nearly all outdoor places can also serve as venues for social intercourse. Older people in Anqing tend to participate in collective activities, which promotes their socialization as well.

This section discussed the reason for older people to engage in outdoor activities of different kinds. Basically, keeping healthy and retaining social connections were the two major drivers for attending these activities. In many cases, older people could achieve these two purposes simultaneously because they tend to participate in collective activities, such as dancing and singing.

5.5 Older people and place: A reflection on active ageing through the use of outdoor space

In the literature review, it has been identified that theories of environmental gerontology provide insightful approaches to understanding the relationship between active ageing and place. In particular, the press-competence model and the person-environment (p-e) fit indicate that active ageing in place could be interpreted from the role of place and the agency of older people. Hence, based on this theoretical framework, this section will discuss the impacts of

physical environment on older people's use of outdoor space, and older people's competence in pursuing better use of these places.

Place's impacts on the use of outdoor space

Person-environment (p-e) fit highlights the role of environment in addressing older people's needs at different levels (Peace *et al*., 2007; Carp and Carp, 1984). Thus, one of major concerns about the role of place in active ageing is to explore the influence of outdoor space on supporting older people's needs to engage in activities. Places, especially those with facilities for specific recreational or sports purposes, provide rich opportunities for older people. These facilities include the fixed and mobile stages on the Science and Technology Square for performing opera; seats and tables for resting, talking, playing cards and chess; and fitness facilities of outdoor gym.

"*Thanks to the university for the aged, otherwise, we would have to tramp the street*."

(Ms. Ding, 71, student at U3A, living in Xi-lin Street)

Taking the University for the Third Age of Anqing for example, the findings of the fieldwork show that older people who attended classes were very satisfied that they had such a place for learning or other activities. For many of them, the opportunity of classes there relieved them from the constraints of the limited outdoor space in their own communities.

In line with Maslow's theory of the hierarchy of needs (Maslow, 1943; Maslow, 1954; Burton, 2012), with continuous improvement of living conditions, older Chinese people have started to pursue higher levels needs such as later life learning for its own sake. The courses offered at the U3A range from poetry to dance, and students may select any courses according to their own interests and conditions. Through study, many students can learn and develop new knowledge and skills. An older woman said that she used to go to the course on traditional Chinese painting and developed a passionate interest in it. This woman was particularly good at painting peonies, and even held an exhibition of her work. The achievement of this woman and the enthusiasm for studying among other older people show that the U3A provides

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opportunities for them to enrich their later life through new learning, perhaps for some being able to fulfil a deeply held ambition.

However, a series of issues have been identified in relation to urban places, especially within communities, that challenged older people's use of outdoor spaces. These issues include, first, no place in community; second, the invasion of cars.

(1). No place in the community

Most interviewees were living in "old" communities. In the Chinese context, a so-called "old community" would be one built before 2000. The majority of interviewees stated that there was not sufficient outdoor space in these for activities. Most old communities were built in the core area of the city; however, with the rapid development of the city, this area had been overdeveloped, leading to difficulties in old communities expanding. Some interviewees viewed the development of the city as a form of violence against older people. Nevertheless, those who could found other places sometimes at a distance.

 "…it's a big defect [of the community]; older people have no activity places at all. We only have the riverside to go to."

(Mr. Yu, 76, Tai-ping-si)

In the three case study communities, although Da-hu had much greater outdoor space than the other two, older people had major concerns about what they perceived as a lack of sufficient outdoor space here as well as in Rong-sheng and Tai-ping-si. In the interviews and focus group carried out in Rong-sheng, members of the dance team complained a lot about their terrible experiences in dancing and rehearsing in the community, which was mainly due to the limitation of outdoor and indoor space. Even for the older people who live in Da-hu, some of them still feel that the amount of fitness facilities provided in their own community is insufficient.

Older people make up the majority of the residents of old neighbourhoods. This may be for several reasons. First, the majority of old neighbourhoods in Anqing were constructed by work units as accommodation for their workers. For instance, Da-hu is an old neighbourhood that used to belong to the large petrochemical corporation; thus, the majority of local residents

are retired staff. As shown in section 4.3.1, many older people who have lived in those communities have developed strong place attachment, and they tend to continue to live there to maintain local social connections. Secondly, the last decade saw a dramatic rise in house prices in China. There is a tradition in China that parents often help their adult children to purchase a house for their marriage. These factors render the majority of older people less capable of moving into newly built neighbourhoods. The petrochemical enterprise was prosperous and able to provide good facilities for residents of the Da-hu community; nonetheless, older people from this community still complain about the lack of fitness facilities as well as the number of outdoor gyms. Older people from Rong-sheng and Tai-ping-si were more dissatisfied.

(2). The tension between people and cars

Fast economic growth brings about rapid increase in the number of vehicles in the city (Shen and Hu, 2015), however, the space for car parking, especially in old communities, is very limited. Consequently, cars were frequently observed to be colonising places where they should not be parked. Hence, unofficial car parking was identified as a negative factor that influence older people's access to activity places in the communities.

"*In terms of the leisure places in the community, um… the crossroads that connect Tai-ping-si community and La-shu-yuan community used to be considered for the reconstruction of an activity place for older people, but it ended up with construction of a car park. We had no choice but to accept it, otherwise where could the cars be parked? The automobiles are more important than older people's activities.*"

(Mr. Yu, 76, Tai-ping-si)

Figure 5.48 Car parking in the space around the flowerbed of Tai-ping-si (30/12/2016)

Taking Tai-ping-si for example, there are no designated parking spaces in the community; as a result, cars have to be parked along the roadside or on lawns. Cars were also found parked up on the pavement. In the community centre of Tai-ping-si where crossroads connect with a neighbouring community, there is a large space available around a flowerbed. But no older people were found there and the space was colonised by cars (Figure 5.48). Informal car parking has made the space inaccessible to older people. Therefore, both older people and cars competed even for very small spaces, for where there was big enough for one or two cars, two or three older people to sit and meet.

In Da-hu, while the community does not have a large car park, there are designated parking spaces near to the apartment blocks. However, despite this, observation showed cars were parked on lawns, in open spaces, on the pavement. Furthermore, some parking spaces were on grass planting bricks and many had become damaged and muddy. This was causing concern among the interviewees and it might suggest that the community managers need to look for more suitable parking spaces.

Older people's agency in use of outdoor space

During the process of person-environment interactions, the role of older people has also been highlighted in their pursuit of active ageing in place. Theories such as the Ecological Theory of Ageing (Wahl and Oswald, 2010) and the press-competence model (Lawton and Nahemow, 1973) stress that older people's competence could play an important role in resisting the negative influences of their environments.

Findings reveal that the community activists, for instance, community voluntary service team, tend to be concerned with community issues, and in some cases, some of these issues were solved after they reported them.

"*And near No. 5 apartment block there are newly built stone tables and seats; it is not convenient for older people who live on higher levels to bring their own seats, so we proposed our suggestion that older people needed fixed stone seats.*"

(Mr.Hu, 80, Da-hu, leader of community voluntary service team)

At present, the city has more than 150,000 registered volunteers working in community service teams, and older people make up a relatively large portion of these (Zhu, 2016). For instance, the members of the Da-hu community service team are all retired workers from the petrochemical enterprise, and most of them are Party members who feel obligated to contribute to the community's development. Older people in the community service team play a positive role in identifying, reporting and solving community issues. Their work indicates that older people are capable of taking part in community affairs.

However, the extent to which more older people can make their voice heard is questionable, because many interviewees indicated that they had no influence. Older people identified some problems in relation to activity places of their communities, and tried to look for help to solve these issues but failed. For instance, the dance team of Rong-sheng requested an indoor activity room for rehearing, and an older man of Tai-ping-si, Mr. Wang, tried to contact maintenance staff for broken sports facilities, however, they did not get any reply.

"*I want to say something more about the sports facilities, I think they need continuous maintenance, but nowadays these facilities are lacking management and maintenance .... No-one will repair them after they are broken, so the number of useable facilities decreases .... I once called the maintenance staff, but no-one answered my phone call.*"

(Mr. Wang, 72, Tai-ping-si)

Interviewees tended to be very active in offering their points of view but were dubious about their influence on shaping policy. For example, as Mr. Wang of Tai-ping-si told the researcher, older people used to join several meetings arranged by the government and they also told officials about some community issues, but local older people did not get further response from the government. In addition, as seen earlier, older people in Tai-ping-si proposed an outdoor gym should be set at the foot of the city wall, but the government did not meet this need.

In China, the Urban and Rural Planning Law entitles citizens to participate in the process of plan-making. "Before filing an urban or rural plan for examination and approval, the body establishing it shall announce the draft of the planning and collect opinions from experts and the general public by way of argumentation, hearing or other", and "[t]he body establishing the planning shall fully consider the opinions of experts and the general public" (Standing Committee of the National People's Congress, 2007, Article 26). However, while citizens are entitled to have their views heard on the draft plans, it is uncertain whether they are fully aware of their rights may be that they are not fully aware of their rights or feel that there is little attention paid to their views.

Literature highlights the special role of community activists, viewing these groups of residents as the real "community leaders" (Kuai and Bai, 2015). But, nonetheless, findings of this study indicate that although the community activists, who tend to be local older residents, tried to solve local issues, their competence was quite limited. Older people were able to identify issues, however, one of the biggest obstacles seemed to be the lack of efficient communication channels with authoritative bodies.

This section discussed active ageing in urban China through exploring the relationship between physical environment and older people's use of outdoor spaces, providing an answer to the research question: **How do we understand active ageing in China through older people's use of outdoor space?**

Literature shows that "active ageing" means older people's active participation in a wide range of activities (WHO, 2001; Walker, 2008; WHO, 2002). Findings of this study identify that in China older people in cities tend to use outdoor space through engaging in recreational and physical activities of different kinds, and these activities are often undertaken collectively. Keeping healthy and retaining social connections were the two major drivers for attending these activities.

Theories of environmental gerontology indicate that the role of physical environment in addressing older people's needs and the agency of older people in resisting the negative influences of their environments are two key points in understanding the meaning of active ageing during person-environment interactions. This study finds that places, especially those with specific facilities, could support older people to participate in a range of activities that could meet physical, social and intellectual needs. But, place-related issues, including the lack of sufficient outdoor spaces in communities and competition from cars were identified as major obstacles to the use of outdoor spaces. In relation to older people's competence, they were seen to be resourceful users of even small and uninviting spaces but in interactions with public bodies, especially community activists, who played a positive role in reporting and dealing with some community issues had limited influence and were able to exert limited authority.

5.6 Places that support older people's social connection

Literature points out that social participation is positively associated with well-being (Vozikaki *et al.*, 2017; Luo and Waite, 2011; Helliwell and Putnam, 2004). Compared with physical well-being and material needs, older people will emphasise psychological well-being (Ree and Alessie, 2011; Gilleard and Higgs, 2011), in particular, social relationships and neighbourhood resources (Bowling and Stenner, 2011).

Place structures social activities, providing a site for socialisation (Knox, 2005), and thus, place can be viewed as a product of social relations (Røe, 2014) and a "generator of social capital and neighbourliness" (Bradwell *et al.*, 2007, p.1). In other words, a place is constructed through a multitude of social relations (Massey, 1991), and it refers to a bounded site of direct connections among social forces that is generally closely related to daily life, collective memory and social identity, and has temporal depth (Jessop, 2005).

Older individual's social connections could consist of multiple realms (Victor *et al*., 2009), including family ties in the home, the local community networks, and societal engagement beyond communities (Waycott, Vetere and Ozanne, 2019; Victor *et al*., 2009; Stewart, Browning, and Sims, 2015). Therefore, in this sense, community outdoor space serves as a place for local residents' socialization. Existing research reveals that older people may become more and more concerned with their immediate environmental context (Rowles,

1978), in particular, they tend to have a strong attachment to neighbourhood and locality (Scharf, Phillipson and Smith, 2003). Talking with other people in the locality was a recurring pleasure mentioned by older people indicating the important social role of community outdoor space in older people's local networks.

"In the afternoon, most of us congregate here…. we talk here[in front of kindergarten of Da-hu], we talk about everything."

(Mr. Li, 70, Da-hu)

Generally speaking, sitting and talking can be seen in nearly every place. Taking the case of Da-hu, older people were observed in different places, from the lakeside to the pavement. Although sitting and talking is undertaken by older people of all ages, there was a predominance of very old people who were frail or walked with difficulty. For these older people, sedentary activities were discussed as their primary activities. Mr. Li, 70, of Da-hu, goes to the open space in front of the kindergarten and spends a whole afternoon talking with others there. In contrast, some younger or less frail older people did not view sitting and talking as a formal activity, but the community outdoor space also provides a platform for older people to have informal talking with their neighbours when doing other activities, for instance, Ms. Chen, 64, Da-hu only talk with others when picking up grandchildren from kindergarten in the afternoon.

Apart from communities, urban public spaces provide more places for older people's socialization. These spaces have special meanings to older people, especially who live in communities lacking sufficient outdoor space or those engaging in specific activities involve people from different regions of the city.

"I can make a lot of friends here, and I have a lot of pleasure."

(Mr. Zhao, 65, student of the U3A)

For many of older people, studying at U3A helps them to meet their social and personal needs. The U3A creates a place for older people to maintain social connections. The majority of U3A students go to the university at least twice a week, and can continue to study after one course is finished; thus, they have unlimited opportunities to exchange information and experience with the others. One older woman from the singing class, Ms. Bi, 75, said that they had formed an intimate community that was like a family, and she was very happy to have so many friends at the U3A. In other words, the U3A provides a place for older people to form a community, in which they may find a feeling of belonging and inclusion.

The central government issued the *Developmental Plan for Elderly Education 2016-2020* in October 2016 (State Council of China, 2016) that requires that each city should have at least one U3A by 2020. In addition, the plan stresses improving the teaching conditions by modernisation of their sites and facilities. The plan proposes to enhance the development of older people's community based education and encourages older people to take advantage of nearby education facilities.

However, there are two issues that need to be addressed before enhancing community-based education for older people. First, based on a news report, Anqing's U3A is much more attractive than those in other districts (Zha, 2013). In 2013 the U3A of Yingjiang District had nine courses and only around 300 registered students. The facilities of the district-managed U3A were good, and even better than that of the U3A operated by the city government. The main reason is that older people tend to feel that facilities operated by the city government must be better managed, and that community-based elderly education are less attractive. This belief has caused an increased demand from older people waiting for available places in Anqing. Second, drawing upon the previous findings, older people go to U3A not only for knowledge and skills, but also to keep socially active. Frequently, older people's social connections are not necessarily confined to their own communities, and thus the U3A in an urban area creates a place where they can meet and talk to friends who live in different areas across the city. Therefore, it can be argued that education for older people not only addresses the need for new knowledge, but also creates more opportunities for older people to keep social connections and enhance their social inclusion.

Community outdoor spaces provide places for local older people to maintain networks, which is as Bowling and Stafford (2007) argue that neighbourhood contexts have important implications for enhancing the active ageing of older people, in which promoting

neighbourliness is one of aims. In this sense, community outdoor spaces play a critical role in retaining social network for older people with less mobility. Urban public spaces, on the other hand, could offer more places and richer opportunities for older people to retain or even expand their social connections, which are not necessarily confined to their communities. Previous research has revealed that expanding social participation, in particular, the societal engagement beyond home and community (Waycott, Vetere and Ozanne, 2019), could be beneficial to older people's health (Yazawa *et al.*, 2016), Thus, these places might be of special significance to older people who have weak community connections or seek wider social networks.

This section offered an answer to the research question: **How do places support older people's social connections?** Existed research points out that community networks and societal engagement beyond communities are two important parts of older people's social connections (Waycott, Vetere and Ozanne, 2019; Victor *et al.*, 2009; Stewart, Browning, and Sims, 2015). In this sense, the study finds that community outdoor spaces provide places for local older people to keep community networks, and urban public spaces could offer more places and richer opportunities for older people to retain or even expand their social connections beyond communities. Community outdoor space is important to older people's social connection because older people become more and more concerned with their immediate environmental context (Rowles, 1978), in particular, they tend to have a strong attachment to neighbourhood and locality (Scharf, Phillipson and Smith, 2003); expanding social participation beyond home and community could be also beneficial to older people's health (Waycott, Vetere and Ozanne, 2019; Yazawa *et al.*, 2016), thus, urban public spaces might be of special significance to older people who have weak community connections or seek wider social networks.

5.7 Summary

This chapter discussed active ageing in urban context in China and older people's social connections through a reflection on older people's use of outdoor spaces in Anqing, to answer two research questions: **How do we understand active ageing in China through older people's use of outdoor space?** and **how do places support older people's social connections?**

The literature demonstrated that active ageing embraces a considerable range of ideas from lengthening working lives through to volunteering; taking responsibility for personal health; remaining socially and intellectually active. Within China active ageing is not used as a term but nevertheless older people have a strong sense of the good old age with physical activity, social connectivity, intellectual stimulation and community service all figuring in their recipes. Within communities, older people can undertake a greater range of activities partly due to a much broader range of spaces. In other words, a greater range of spaces stimulates a broader range of activities. Most of older people's outdoor activities were related to recreational or physical ones, and older Chinese tend to take part in collective activities. Basically, keeping healthy and retaining social connections were the two major drivers for attending these activities.

Places could support older people to participate in activities to meet needs at various levels. But, the lack of sufficient outdoor spaces in communities and intrusive cars parking in activity places were major obstacles to the use of outdoor spaces. Although community activists could play a positive role in pursing better use of outdoor spaces for older people, their power might be limited because of the lack of efficient channel of communication with authoritative bodies.

There are multiple dimensions of older people's social connections. Community outdoor spaces provide places for local older people to keep community networks, while urban public spaces could offer more places and richer opportunities for older people to retain or even expand their social connections.

Chapter 6. Age-friendly places in Anqing

6.1 Introduction

This chapter sets out the condition of various places in the city centre and the three case study communities, trying to answer one research question: **How age friendly is the built environment in a developing Chinese city?** To answer this question, this chapter first presents findings of observations, interviews and focus groups conducted in public spaces and case communities. These are used to assess the age-friendliness of these places based on the WHO's age-friendly checklists. Based on these, the researcher discusses three dimensions of place, i.e., place aesthetics, changing place and changing people, and pride of place, to further deepen the understanding of age-friendly cities and communities in the context of a developing Chinese city.

6.2 Age-friendliness of outdoor space in Anqing

In exploring the age-friendliness of places of Anqing, the researcher conducted three periods of fieldwork[22] in the urban area to collect data via observation, interviews and focus groups. During the first fieldwork period, the city was trying to apply for the coveted title of "National Civilised City"; thus, the local government was working on the improvement of the city's environment, including the quality of the outdoor space. The second fieldwork was carried out shortly after the city won the title in November 2017. The findings in these places have been mapped onto WHO's Age-friendly City framework. In addition, the evidence of older people's voices is also presented.

6.2.1 *Public areas*

"*Public areas are clean and pleasant.*"(WHO, 2007a, p.1)

Based on the experience of interviewees, the general environment of the city has been improved a great deal since it applied for the title of "National Civilised City" in 2015. According to the requirements, the city's sanitation is one of the critical factors in the application; thus, the local government gave its top priority to keeping public areas clean. The city government hired a large sanitation enterprise from Beijing, the Beijing Environmental

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[22] August 2016 to January 2017; November 2017; and January 2018 respectively.

Sanitation Engineering Group Limited, at the end of 2016. This advanced enterprise uses modern mechanised sanitation equipment, making the work of cleaning more efficient than the past (Figure 6.1).

Figure 6.1 Workers using bin cleaning truck in Rong-sheng Community

(21/11/2017)

In public areas of the city, including parks, squares, pedestrian streets and the riverbank, there was no accumulation of rubbish, and places were quite clean. However, some interviewees expressed concerns about the issue of dogs. One issue involves dog mess, and older people are concerned about the environmental hazard.

 "*Dogs defecate frequently on the street. Pet owners must clean their dogs' droppings, they raise dogs so they must keep watch on their pets*."

 (Ms. Chen, 63, Pao-ying-shan)

In some public areas – for instance, the pedestrian streets – "No Dogs Area" signs are set up at entrances (Figure 6.2). However, residents' complaints about disturbances by dogs are still frequently heard in local news, and as a response, the city government reinforced implementation of the control of dogs order from July to September 2017 (Jiang, 2017). Occasionally, it could be observed that some people clean up their dogs' waste on the street,

but in November 2017, the researcher revisited the riverbank and found that people often walked their dogs off the leash and did not pick up their droppings.

Figure 6.2 "No Dogs Area" sign at entrance to pedestrian street

(07/01/2017)

6.2.2 *Green spaces and outdoor seating*

"*Green spaces and outdoor seating are sufficient in number, well-maintained and safe.*" (WHO, 2007a, p.1)

At the end of 2015, approximately 40% of the urban area was covered by green space, and the average area of lawn for each resident was 12.6 m^2 (Lei and Cheng, 2015). The city has two large parks, the Ling-hu Park and the Lian-hu Park, and both are built around two large lakes. The area of the lakes is 2.03 km^2. There are a large number of trees in the parks, at the lakesides and on city pavements. Basically, the green spaces of the city are sufficient and well maintained. However, the parks are not within reasonable reach of all communities in the city, for instance, there are no large green spaces in the south west part of the city.

Seats can be seen in many places, such as parks, the pedestrian streets and the riverbank, and the researcher found that most of the seats in those places were in good condition. Traditional Chinese pavilions can be seen in these public areas also, and seats are provided there as well.

In addition, some high street shops – for instance, some pharmacies – provide seats outside the store (Figure 6.3). These shops provide seats probably because the shop owners think they get a higher percentage of older customers. However, places, such as the Science and Technology Square, have no seats; as a result, older people have to bring their own. This also happens in places with seats where older people gather in greater numbers, because the limited number of seats cannot meet needs, and the form of seats and tables is not suitable for card games.

Figure 6.3 Two seats provided outside a pharmacy

(22/11/2017)

6.2.3 *Pavements*

"*Pavements are well-maintained, free of obstructions and reserved for pedestrians* and *are non-slip, are wide enough for wheelchairs and have dropped curbs to road level*." (WHO, 2007a, p.1)

It is clear that the condition of the pavement can determine the mobility of those older people who rely more on walking. The majority of pavements in the city are made of non-slip tiles, and none of the interviewees thought the pavements were slippery. The pavement has dropped

kerbs to promote wheelchair access; nonetheless, cement ramps were also frequently found built between pavement kerb and road level, which indicates that these ramps were added later. Most pavements are wide enough for wheelchairs, but the age-friendliness has been found to be downgraded mainly due to obstructions. The most frequently found obstacle is parked cars, making walking difficult, and cars were even observed to be parked across blister pavements (Figure 6.4). Moreover, electric scooters were frequently found to be blocking pedestrians, and some bikers charge their scooters on the pavement; as a result, some parts of the pavement were blocked completely by electric scooters, forcing older people to walk on the road (Figure 6.5). In addition, dogs, especially stray dogs, are often on the streets, and due to the lack of both management and public awareness, dog mess is an unpleasant hazard.

Figure 6.4 Cars taking up the pavement

(07/01/2017; Photo at left was taken in Ji-xian Road; that at right was taken in Shuang-jin Street – the yellow lanes with rectangular bumps were built as an alert for blind people)

Figure 6.5 Older people have to walk on the road because of the obstruction of the pavement

(21/11/2017;Photos taken near Tai-ping-si Community)

6.2.4 *Transportation*

"*Pedestrian crossings are sufficient in number and safe for people with different levels and types of disability, with non-slip markings, visual and audio cues and adequate crossing times* and *[d]rivers give way to pedestrians at intersections and pedestrian crossings.*" (WHO, 2007a, p.1)

Pedestrian crossings in the urban area are frequent, and there are traffic lights at many crossings and all have visual cues. The crossing time at different crossings varies, but generally speaking, it is more than 30 seconds, allowing most pedestrians, including disabled people, to cross the road safely (Figure 6.6). However, pedestrians with limited eyesight may face a problem when waiting to cross the road because no pedestrian crossings in Anqing have audio cues.

The markings of pedestrian crossings are not made of non-slip materials. A local news outlet reported several residents' traffic accidents because of the slippery markings (Tang, 2017).

At intersections and pedestrian crossings without traffic lights, the researcher identified that cars did not always give way to pedestrians when approaching zebra crossings, making older people feel unsafe when they were crossing the streets. One older man living in Da-hu Community said in November 2016:

"Drivers are very rude here. You walk across the zebra crossing, but they still drive without stopping (for you)."

(Mr. Ding, Da-hu Community)

Figure 6.6 Older people waiting to cross the road

(07/01/2017;Photo taken in Ji-xian Road)

This issue seemed to be addressed to some extent while the city was trying to win the title of "Civilised City". During the fieldwork in November 2017, shortly after the city succeeded in its application, cars, especially taxis, were largely seen to obey the rules. The researcher took a taxi and talked to the driver about the issues. The driver said taxis complied with this traffic rule because of heavy penalties, and he had four unpaid penalties. During our journey, the driver waited and gave way to pedestrians when approaching zebra crossings; however, in the meantime, the waiting pedestrians did not cross the road immediately: they looked at the cars and lacked the confidence to step out. Thus, it happened frequently that both pedestrians and cars alike waited for a while at zebra crossings. In the past, the penalty for not giving way was not strictly implemented, so drivers did not always obey the traffic rule, but as the government enhances traffic management, they have to adjust, but pedestrians are still uncertain.

Several interviewees indicated that some drivers were less likely to stop if they knew there was no CCTV. In November 2017, a 15-minute observation was carried out one afternoon at a pedestrian crossing on Ji-xian Road where there was heavy traffic (Figure 6.7). This crossing only has a sign that warns cars to give way, but no traffic lights or electronic surveillance. The results of the observation revealed that only about one-third of cars stopped and gave way to pedestrians, and as a result few pedestrians crossed calmly; one older woman even ran across in spite of cars having stopped for her.

Figure 6.7 Older people crossing Ji-xian Road

(21/11/2017)

6.2.5 *Cycle paths*

"*Cycle paths are separate from pavements and other pedestrian walkways.*" (WHO, 2007a, p.1)

Like most areas of China, pavements in Anqing are only accessible to pedestrians, and cycle paths tend to be separate from pedestrian walkways. More people nowadays travel by electric scooters rather than bicycles. The speed of electric scooters is generally faster, but they are not allowed in the car lanes, so they share the same lane as bicycles (Figure 6.8).

Figure 6.8 Electric scooters on the street

(22/11/2017)

There are two forms of separate bicycle lanes in the city. One is located between pavements and driveways, being separated by railings or green spaces, including grass and trees (Figure 6.9-a). These provide bicycles with an independent and relatively large and safe cycling space, but were built only along wide urban arterial roads. The other appears more often on narrower roads. These paths share the same road with motor vehicles and pedestrians, and the boundaries of bicycle lanes are marked on the ground (Figure 6.9-b). Based on the findings of the observation, the cycle lanes were occasionally blocked.

Fig. 6.9-a   Fig. 6.9-b

Figure 6.9 Two different types of bicycle lane (21/11/2017)

On even narrower roads, however, there are no specific marked cycle paths or pavements in some areas. Therefore, in these places, cyclists need to ride carefully beside cars and pedestrians (Figure 6.10).
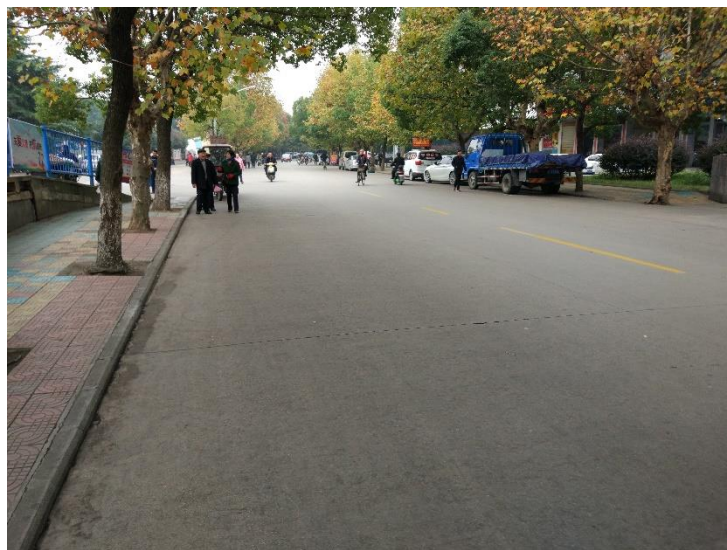
Figure 6.10 Road near Da-hu Community

(21/11/2017)

6.2.6 *Buildings*

"*Buildings are well-signed outside and inside, with sufficient seating and toilets, accessible elevators, ramps, railings and stairs, and non-slip floors.*" (WHO, 2007a, p.1)

To collect data on the age-friendliness of public buildings of the city, the researcher visited six large shopping malls as well as the railway station.

Table 6.1 Age-friendliness of public buildings

	Well-signed	Seating	Accessible Toilets	Accessible Elevators	Accessible Ramps	Accessible Railings and Stairs	Non-slip Floors
King Peak Plaza (汇峰广场) (Fig. 6.11-a)	Yes	Sufficient	Yes	Yes	None	None	None
New Bay Shopping Centre (新百百货) (Fig. 6.11-b)	Yes	Sufficient	Yes	None	Outdoor entrance ramp	None	None
Injoy Plaza (吾悦广场) (Fig. 6.11-c)	Yes	Sufficient	Yes	Yes	None	None	None
New City Mall (新地城) (Fig. 6.11-d)	Yes	Limited in number	Yes	None	None	None	None
YAOHAN (八佰伴) (Fig. 6.11-e)	Yes	Limited in number	Yes	Yes	None	None	None
Bailian Anqing Shopping Mall (百联) (Fig. 6.11-f)	Yes	Sufficient	Yes	Yes	Outdoor entrance ramp	None	None
Railway station (火车站) (Fig. 6.11-g)	Yes	Sufficient	Yes	Yes	Yes	None	None

Fig. 6.11-a

Fig. 6.11-b

Fig. 6.11-c

Fig. 6.11-d

Fig. 6.11-e

Fig 6.11-f
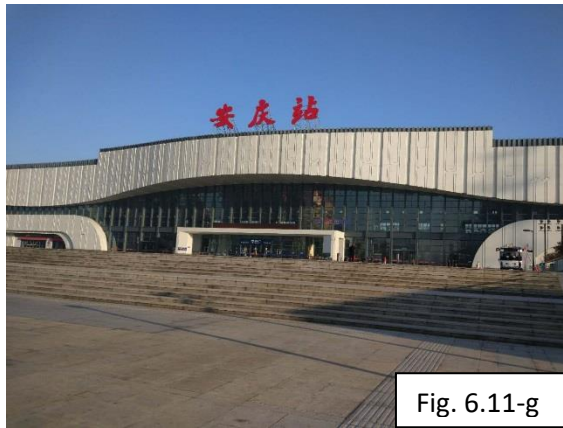
Figure 6.11 Public buildings of Anqing

(November-December 2017)

Drawing upon the findings, as shown in Table 6.1, it may be inferred that most public buildings in the city, especially newly built ones, tend to have some accessible facilities, such as accessible elevators and toilets. However, there are still some details of these facilities that need to be improved. First, in some buildings – for instance, the New Bay Shopping Centre – there are several steps connecting different areas on the same floor (Fig. 6.11-h), but none of these places has accessible railings and stairs, which makes the movement of older people with disabilities more difficult. In addition, the entrance of Linghu Park does not have a ramp, and the researcher found an older person in a wheelchair had to stand up and move slowly with help from others (Fig. 6.11-i). Second, in some shopping malls, some of the accessible elevators cannot take older or disabled people to all floors. For example, at the King Peak

Plaza, the accessible elevator does not connect to the basement, where a large supermarket is located. Third, much of the flooring of these buildings is made of porcelain tiles, and the surface of the tiles is quite shiny and even if not slippery, such a surface can create a fear that it may be.

In terms of old buildings, accessibility for disabled older people is relatively low. For instance, the New Bay Shopping Centre is the oldest among the public buildings that the researcher visited. The building was constructed in the early 2000s, and there is no accessible elevator in the shopping centre. Furthermore, shops on the street tend to have two or three steps above the road level, and most do not have ramps.

However, in terms of specific places for older people, such as the U3A and care service stations, more details have been addressed to ensure older people may use these facilities more conveniently. A good example is an elderly care service centre called Yi Ren Tang ("怡人堂"养老中心) (Fig. 6.11-j). This service centre was built by refurbishing an old five-floor building, and after the refurbishment an outdoor lift was also installed there, which was apparently to consider older people.

6.2.7 *Public toilets*

"*Public toilets outdoors and indoors are sufficient in number, clean, well-maintained and accessible.*" (WHO, 2007a, p.1)

The city has 147 outdoor public toilets in the urban area, and the government finished the refurbishing work of 96 old and damaged toilets in 2017 (Xu, 2017). Before the refurbishment, according to local news reports as well as interviewees' responses, the outdoor public toilets in the city were generally dirty and smelly, and the lighting was insufficient at night. At present, however, the public toilets are clean and free of foul smells, and incense is burned at each toilet. At a toilet near the riverbank, the researcher found there was a duty and inspection schedule, showing that cleaners are required to clean the toilet six times a day, and both cleaners and inspectors are required to sign or stamp after each time (Figure 6.12). The toilet has a separate ramp and handrail, which makes it accessible to disabled people (Figure 6.13). But, some other toilets' ramps are not handy for people in wheelchairs because the ramps are short and narrow, and what is worse, some toilets have no ramp (Figure 6.14).
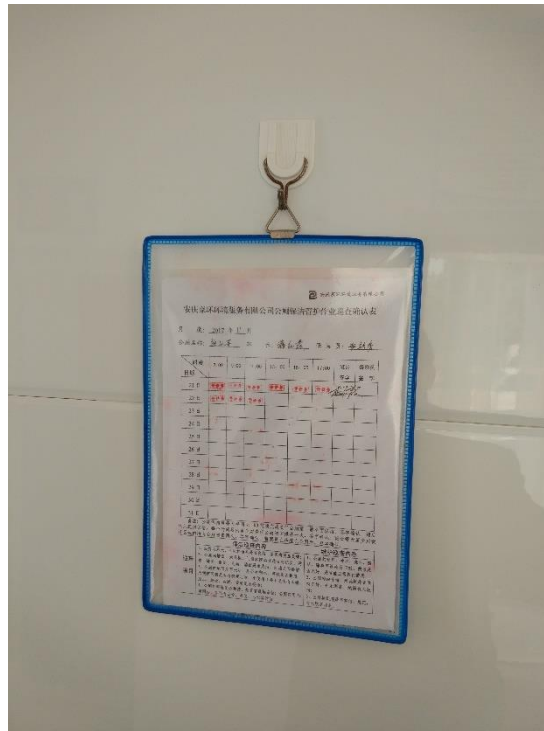
Figure 6.12 Duty and inspection schedule of a toilet near the riverbank

(22/11/2017)

Figure 6.13 Ramp and handrail of a toilet near the riverbank

(22/11/2017)

Figure 6.14 Two less accessible toilets

(26/11/2017)

Apart from the places that older people frequent, public transportation determines the age-friendliness of the city's outdoor space as well, for mobility is a critical factor that promotes older people's well-being. In Anqing, there are two main forms of public transport: taxis and buses. The base fare in a taxi is ¥6 (about £0.70), and after 2 km the fare rises by ¥1.5 (about £0.17) per kilometre. There is no policy of concessionary taxi travel for older people in Anqing. In contrast, bus fares are much lower: ¥1 or ¥2 on most lines in the urban area. Furthermore, people aged 70 or above can apply for a bus pass that gives them free unlimited bus travel. Therefore, in addition to walking, bus travel is the most popular option for older people to get about.

6.2.8 *Public transportation costs*

"Public transportation costs are consistent, clearly displayed and affordable." (WHO, 2007a, p.1)

The current city bus fare is affordable by most urban residents: ¥1 in mild months and ¥2 for those buses with heating/air conditioning (Bureau of Commodity Prices and Bureau of Transportation of Anqing, 2017). In addition, the city government issues the Senior Citizen's Certificate (as shown in Figure 6.15) to older people that entitles them to a series of benefits, which includes free bus travel. But, nonetheless, older people said Senior Citizen's Certificate was almost useless.

"*The Senior Citizen's Certificate for older people aged under 70 is almost useless, because we can't apply for a bus pass, and we even need to buy tickets if we visit the Ying-jiang Temple*."

(Mrs. Qiao,63, Da-hu Community)

Figure 6.15 Senior Citizen's Certificate

(12/10/2016;Courtesy of Mrs. Qiao)

All older people aged 60 or above in Anqing can apply for the certificate. However, the bus travel policy varies from one city to another. For instance, in Anqing only citizens aged 70 or above can apply for the older person's bus pass by showing the certificate, while in some other cities, such as Wuhan, older people aged 65 or above can obtain 730 free bus rides a year (Wuhan Bus Company, 2015). Shanghai's government cancelled the issue of bus passes to qualified older persons; instead, the authority gives each of them a certain amount of bus travel subsidy a year, and the aim of the measure is said to relieve heavy traffic in rush hours.

6.2.9 *Public transportation's reliability and frequency*

"Public transportation is reliable and frequent, including at night and on weekends and holidays; and *all city areas and services are accessible by public transport, with good connections and well-marked routes and vehicles*." (WHO, 2007a, p.1)

Basically, the city's bus service is managed by public transport companies and supervised by the powerful city government; thus, the operation of the buses is generally stable all the year round. Based on the available data, including past years' news reports available online, as well as interviewees' responses, failure of provision has never happened in the city.

The bus service is provided throughout the whole year, including public holidays, such as the Spring Festival (or Chinese New Year) and the National Day (on 1st October). During the daytime, the services are frequent; for instance, the No.12 bus line is 10.7 km in length, and buses run every eight minutes during peak hours and ten minutes at other times. The No. 16 bus line is 11.2 km in length, and runs every ten minutes during peak hours and 15 minutes after that. For a city of medium size, the public transportation is frequent.

However, the majority of lines do not have an evening service. In 2015, the Zhong-bei Public Transport Company had 36 bus lines, and the last service on 23 of these lines ended at 18.30, while only two lines ran until 22.30. According to the operators information and some interviewees' experiences, some areas of the city, especially the newly constructed suburban areas, lack a frequent bus service. For example, the bus service to a large modern neighbourhood in the eastern suburb (the Country Garden) ends at 18.30.

6.2.10 *Vehicles*

"Vehicles are clean, well-maintained, accessible, not overcrowded and have priority seating that is respected." (WHO, 2007a, p.2)

Basically, the city's buses are clean, and all have sanitation facilities, such as trash bins and mops (Figure 6.16). Smoking is prohibited in the carriage. The researcher took buses at several times during off peak time and observed that passengers were generally aware of keeping buses clean, and no one smoked inside the bus (Figure 6.17). In addition, the bus handles and seats were in good condition. All buses have priority seats for older people or people in need (Figure 6.18). However, it was observed that some healthy younger people

occasionally took up those seats. Mr. Pei of Tai-ping-si Community who broke his leg recently said:

"Some younger people will give their seats to us who have something wrong with our legs…. but some people won't give seats. [laugh] Some people even rush to get on the bus and grab a seat."

(Mr. Pei, Tai-ping-si Community)

Figure 6.16 Bin and mop on bus

(21/11/2017)
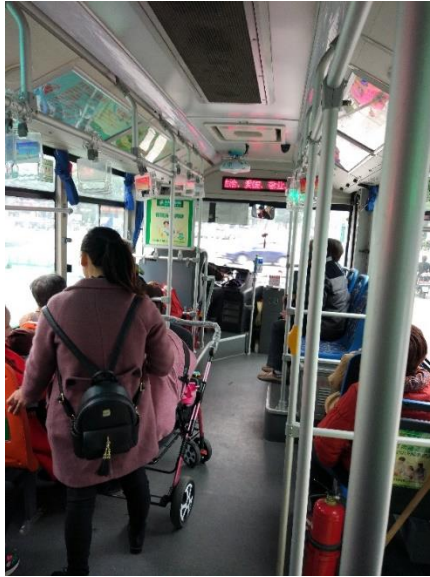
Figure 6.17 The bus is clean

(21/11/2017)

Figure 6.18 Orange priority seats on bus

(21/11/2017)

Local news reports revealed more details of disgraceful behaviour of some passengers, in particular during peak time. For instance, on a weekday early morning at the end of August 2016, a reporter took the No.14 bus and found that many passengers did not queue to get on board, ate breakfast in the vehicle and threw garbage away on the floor. On the second day, the reporter took another bus and identified an older person boarding the overcrowded bus

who had to stand for a long time until a student gave up his seat, while other young passengers who were seated pretended not to notice the older person (Ye, 2016).

No city buses have any specific facilities to help passengers to get on board. As Figure 6.19 shows, it was not easy for an older woman to get on the bus because of the height of the bus floor (more than 20 cm).

Figure 6.19 Older woman getting on a bus

(11/09/2016)

6.2.11 *Drivers*

"*Drivers stop at designated stops and beside the curb to facilitate boarding and wait for passengers to be seated before driving off.*" (WHO, 2007a, p.2)

According to interviewees' responses and the researcher's observation, drivers do not stop at every designated stop. Mr. Qiao of Da-hu Community shared his experience of taking buses with the researcher:

"*If you need to get off at one stop, then you'll need to move to the door and stand there in advance, otherwise, if the driver doesn't see any passenger standing at the door he or she will not stop because the driver think no passenger is getting off. I think it's not good, because it's dangerous for older people to move to the door when the bus is still running. I once took a bus and the driver didn't stop at the stop where I needed to get off because he didn't see me standing at the door so I had to shout then the bus stopped.*"

(Mr. Qiao, 62, Da-hu Community)

Some local news reports indicate that some drivers refuse to take passengers in the suburban areas (Du, 2017; Wang, 2017). For instance, in February 2017 an older couple who lived in the suburb wanted to take the bus to the city centre but were refused access three times by buses and had to wait more than one hour before being allowed to board a fourth bus. Nowadays, most buses have been equipped with surveillance cameras and GPS, therefore, by checking the recorded video, these cases of drivers' dereliction of duty were confirmed after investigation by the bus companies (Figure 6.20).
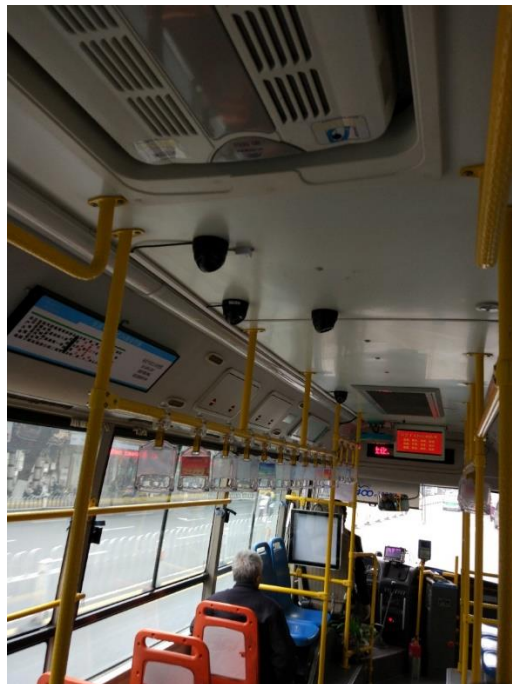
Figure 6.20 Surveillance cameras on bus

(21/11/2017)

Moreover, the researcher identified two more details of drivers' behaviour that need to be improved. One is that buses frequently do not pull up to the kerb, leaving people to negotiate a drop of more than 60 cm between the bus and the pavement (Figure 6.21).

Figure 6.21 Bus stopped away from the kerb

(23/11/2017)

Secondly, drivers often drive off while older people are still moving. In January 2016, electric buses started to be put into service on the No.33 line, and bus companies as well as the city government are planning to put electric buses on more lines. These buses have swift acceleration; thus, older people who were still moving, and even many younger passengers like the researcher, lurched when the bus was driving off.

6.2.12 *Transport stops and stations*

"Transport stops and stations are conveniently located, accessible, safe, clean, well-lit and well-marked, with adequate seating and shelter; and complete and accessible information is provided to users about routes, schedules and special needs facilities." (WHO, 2007a, p.2)

At the end of 2017, the percentage of the urban area within 500 m of a bus stop[23] will be more than 78% (Bureau of Transportation of Anqing, 2017). In 2016, the bus companies started to put digital bus time information screens into service (Lu, 2016); the city government was planning to put in another 100 screens in 2017, to have more than 130 digitalised bus information screens by the end of that year (Bureau of Transportation of Anqing, 2017). The digitalised screen can provide rich information, including routes, schedules, location of buses, weather forecasts and news (Figure 6.22). Besides, these digital stops can offer audio cues to remind people of the real-time location of the buses. Each digital stop is equipped with a surveillance camera.

Figure 6.22 Digital bus stop on Hu-xin Road

(24/11/2017)

However, at present the majority of bus stops in the urban area lack these facilities, and in some areas traditional simple bus stop poles are often seen as well. These stops provide less

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[23] This is a measure of the coverage of a bus route network. In an urban area, a walk of 500 m or less to or from the nearest bus stop is normally regarded as desirable: a distance greater than this is regarded as inconvenient (World Bank Group and PPIAF, 2006).

information, and some of them lack sufficient lighting, making service information less readable to passengers in the early evening.

There are seats and shelters at some bus stops (Figure 6.23). The seats have no handrail or back rest. But at some stops, especially the ones with simple bus stop poles, there are no seats and shelters at all (Figure 6.24).

Figure 6.23 Bus stop with seats and shelter on the Hu-xin Road

(24/11/2017)

Figure 6.24 Bus stop near the Science and Technology Square

(23/11/2017)

6.3 Age-friendliness of outdoor spaces of Da-hu, Rong-sheng and Tai-ping-si

Based on WHO's checklist for age-friendly cities, seven aspects are selected for the investigation of age-friendliness of the three communities' outdoor spaces, including environment, green spaces, outdoor seating, pavement, outdoor safety, car parking and bus stops.

In order to obtain richer data on the age-friendliness of each case study communities, the researcher employed two strategies. First, non-participant observations were conducted in the three communities to collect data for producing a general and brief description of each aspect of outdoor spaces. Second, the researcher asked randomly encountered older people (n=50 for each community) at activity places to assess the seven aspects of their communities through using a scale of age-friendliness of outdoor spaces (see Appendix H).

Referencing the structure of the "Satisfaction With Life Scale" (SWLS), which is an internationally recognised self-report test for measuring people's QoL, devised by Pavot and Diener (1993), the scale of age-friendliness has seven items covering the seven aspects of outdoor spaces that examine older individual's perception on the age-friendliness of the each aspect on a seven point Likert scale. The collected individuals' scores were further processed by calculating the average score for each aspect, and then categorized into high, medium and low scores, which were represented by three different symbols respectively.

The following scorecard shows the main findings of the observation and the final results of older people's marking of each aspect of the outdoor spaces, giving a comparison between these communities.

Table 6.2 Scorecard of age-friendliness of Da-hu, Rong-sheng and Tai-ping-si

(Source: author; Note: ●indicates a high score (6-7), ◑ and ○ indicate a medium (3-5) and a low score (1-2) respectively)

Community Characteristics	Da-hu		Rong-sheng		Tai-ping-si	
	Score	Description	Score	Description	Score	Description
Environment: clean and pleasant	●	Quiet and clean community with wonderful scenes, such as the lake park	◑	Street market is dirty and noisy, but other parts are clean	◑	Basically clean
Green spaces: sufficient and well-maintained	●	Sufficient and well-maintained green spaces across the community, including lawns and trees of various kinds	○	Very few green spaces	◑	Several flower beds offer green spaces but there is green space between residential buildings
Outdoor seating: sufficient and well-maintained	●	Plenty of seats across the community, especially in the area around the lake park	◑	New wooden seats with handrails and backrests in the community centre	○	Only four stone seats
Pavement: well-maintained and free of obstructions	●	Most parts are in good condition, and some of them are wide enough to serve as older people's activity places	○	Narrow and many parts are occupied by cars or street vendors	◑	Newly built pavement along the ancient city wall is in good condition, but many other parts are narrow and occupied by cars
Outdoor safety: good lighting and security measures	●	Gated community with CCTV; street lights there are sufficient	○	Open community with quite a few CCTV cameras; street lights are insufficient	○	Open community with a few CCTV cameras along urban roads; street lights are insufficient
Car parking	◑	Designated car parking spaces; drivers can park their cars in the correct places, but informal parking can still be found occasionally	○	No designated car parking spaces; drivers park their cars informally	○	No designated car parking spaces; drivers park their cars informally
Bus stops	●	Three bus stops around community	●	Four bus stops around community	●	Four bus stops around community

From the comparison shown in the Table 6.2 it could be identified that Da-hu was more age-friendly than Rong-sheng and Tai-ping-si. Literature points out that developing an age-friendly environment requires physical preconditions, including health and social services, outdoor spaces and buildings (Fitzgerald and Caro, 2014). In this case, Da-hu had better characteristics in creating age-friendly outdoor environment mainly due to historical factors. The Da-hu community was originally constructed by the China Petroleum and Chemical Corporation Anqing Company, which as a super-large state-owned enterprise, had considerable funds to invest in high quality construction. First, the building density is low, creating larger outdoor spaces. Second, the community has more as well as attractive associated amenities, such as the lake park and the croquet court. Third, Da-hu is a gated community, and its management is undertaken by the petro-chemical enterprise. In particular, the improvement project conducted in this community was funded and guided by the enterprise, thus, management and associated facilities were improved significantly after the project, for instance, the community has a strict policy on car parking and provides designated car parking spaces, as well as gate guards and CCTV cameras. The project undertaken in Da-hu was funded and implemented by the petrochemical corporation, and cost about 4 million yuan (more than £400,000). The project undertook a comprehensive range of improvements from roads to green spaces, making the old neighbourhood much more attractive and cleaner that it used to be. However, unlike its counterparts, the provider of the estate management of Da-hu is experiencing a shift from the petrochemical corporation to the city government. The management of Da-hu has been operated and funded by the petro-chemical enterprise since this community was built in early 1980s. But in recently years, because of the national policy on reducing burden of state-owned enterprises, the petro chemical enterprise is now considering to hand over the community management to the city government completely, thus, local older people concerned over the shift because it might cause negative impact on community management.

In contrast, Rong-sheng and Tai-ping-si have more issues in outdoor spaces. Rong-sheng is located in the city centre, and the community has limited outdoor space because of its high building density. In particular, the area of green space of Rong-sheng is very small. Tai-ping-si has larger outdoor space, but lacks sufficient recreational facilities, for instance, seats. Moreover, both Rong-sheng and Tai-ping-si are open communities, which are managed by the city government. As a developing city, the local government's budget for so many communities' development may be limited, therefore, it seems reasonable that associated

facilities and living environment of these old communities might be inferior to Da-hu. Nevertheless, the researcher identified that the broken facilities in so many old communities across the city were not replaced with new ones until renovation projects took place, and obviously, conducting the project was an important part of the city governmental officials' ambitious actions to win the title of "National Civilised City" (Zhang, 2015). This shows that, when it needs to, the city government is able to raise funding to improve the living environment of communities.

Basically, the three old communities have a clean environment, and good transport. But, the issue of car parking is a common problem among old communities, even in Da-hu which was doing more to tackle this issue for cars were occasionally parked beyond correct places. To a great extent, a lot of issues of old communities are due to a lack of effective management. There is a significant gap in terms of management between modern and old neighbourhoods. Modern neighbourhoods tend to be equipped with advanced security facilities, such as surveillance cameras and access control systems, and, moreover, outdoor facilities, including fitness equipment and lights, are repaired or replaced in a short time due to the higher management fees of these communities. In old communities, it seems that the performance of management companies varies a great deal. Currently, each community has a service centre and some other tangible essential facilities such as medical help and a police office, which are required by the government; however, the non-compulsory community services, such as the attention paid to older people's lives, is quite different. In other words, concern about older people not only depends on the laws and regulation, but also the attitude of local community leaders.

6.4 Three dimensions of place: A reflection on age-friendly environment in Anqing

Based on the assessment of age-friendliness of urban and community spaces in Anqing against the WHO's checklists, this section aims to reveal more benefits or issues of place in relation to its role in developing an age-friendly environment. This discussion will focus on three dimensions of place that emerged from the findings of fieldwork, i.e., place aesthetics, changing environment and people, and pride of place. The exploration on these dimensions will deepen the understanding of age-friendly cities and communities in the context of developing Anqing.

6.4.1 *Place aesthetics*

According to the WHO's checklist the "pleasant and clean environment" is listed as the first feature of age-friendly outdoor spaces, highlighting that beauty of urban environment, i.e., the place aesthetics is one of the most commonly mentioned age-friendly features (WHO, 2007). As a weak tier 3 city, the governmental investment in the improvement of old communities, especially in downtown area, is challenging because of limited funding. By visiting 21 neighbourhoods across the city during the pilot work, the researcher was able to draw a preliminary conclusion that most of the old communities in the city of Anqing were in worse condition than their modern counterparts. Ms. Bao, 69, an older woman from Wu-yue community in the city centre, complained about the quality of the local environment and expected governmental actions to solve this issue as soon as possible.

However, based on the findings presented in the sections 5.3.1, 6.2 and 6.3, it can be identified that the urban environment, especially within communities, has been improved significantly because of the improvement projects conducted across the city.

"*Our neighbourhood and Ling Bei[24] have become more beautiful after improvement.*"

(Mr. Xia, 62, Da-hu)

Taking Da-hu for example, one major benefit the improvement project brought local residents was a change to the street market near the lake park. According to local residents, such as Mr. He (68, Da-hu) and Ms. Chen (64, Da-hu), the street market used to be an "annoying" thing to them, especially since it had a negative influence on the park environment. But, after the improvement project, local authorities enforced stricter management on the street market; for example, as the following photo shows, the community has set up a board that announced the appointment of the inspector of the street market and his powers and responsibilities, and in the meantime, the local government required that the vendors were allowed to conduct business only on the west side of the pavement from midday to 6.30 pm. With regard to these measures and their effects, older people had a lot of praise for them. In addition, Ms. Bi, 75, living in Jin-sheng community, also appreciated the positive changes in the urban and

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[24] Ling Bei (石化菱北生活区) is another neighbourhood that was improved by the petro-chemical enterprise.

community environment, such as new street lights, city's night scene and the Cultural Wall. The so-called "Cultural Wall" refers to a wall that was decorated and painted with slogans and pictures. The content painted on the wall is usually about traditional Chinese culture and political slogans, such as the "China Dream" and traditional Chinese virtues.

Apparently, the beautification of place in Anqing was recognized and welcomed by local older people. Place's aesthetic features, especially in the realm of communities, such as cleanliness, greenery, pollution, are positively associated with older people's well-being, in particular, these features could impact older people's physical activities, for instance recreational walking (Zandieh *et al*., 2016; Cauwenberg *et al*., 2018). It is needless to say that, to a great extent, the improvement of urban environment was promoted by the city's development. However, the rapid economic growth also brings about some issues in relation to place aesthetics, for instance, the traffic noise. Older people mentioned that their lives were disturbed by the noise caused by cars.

"The traffic causes much vibration for our house. And now the Ji-xian Road will be finishing the reconstruction project soon, and [after that] all cars will come here, I mean the big crossing ahead, too noisy."

(Ms. Hu, 65, Rong-sheng)

The improvement of road conditions might be helpful to the mobility of older people who rely on automobiles to travel. Nonetheless, the rapid expansion of urban traffic and large road constructions also brings serious traffic noise pollution, which affects well-being of people, especially who live along the road (Wang *et al*., 2018; Wu *et al*., 2019). Noise has been identified as an environmental issue that could cause a series of health problems, for instance, hearing loss (Cascio, 1993). One study shows that compared with young people, the negative influence of noise on older people's psychophysical health might become decreased, but older people still have negative perception towards environmental noise (Saifuddin *et al*., 2010). Hence, the local government should pay more attention to sensory issues in the urban outdoor spaces rather than only focusing on physical aspects of place aesthetics.

6.4.2 *Changing place and changing people*

With fast socio-economic development, Anqing's physical environment is also experiencing changes. Some changes in outdoor spaces throughout the city have been identified as positives that change older people's later lives through promoting their well-being. With regard to the relationship between life satisfaction and age, a number of scholars such as Blanchflower and Oseald (2008) and Stone *et al*. (2010) propose a U-shaped model, where Ree and Alessie (2011) argue that life satisfaction is not flat or trending linearly, but subject to a midlife slump before proceeding to a later life uplift. The 2006 Asia Barometer Survey carried out in China reveals that the Chinese feel more positive than negative about their lives. Shu and Zhu (2009, p.217) further identity that Chinese people's relatively high levels of subjective well-being can be attributed to four aspects: historical comparison, sustained high economic growth, satisfaction with interpersonal life and a high percentage of married people.

Therefore, for older people in a developing Chinese city, they might have to face and tolerate a lot of problems in relation to their urban lives due to unfriendly urban physical and social environments in the past; but with more positive changes taking place in the urban outdoor spaces, their physical and psychological well-being could be improved significantly. For instance, respect is one important element of age-friendly environment (WHO, 2007), and findings of this study discover that some changes in places makes older people feel that they are more respected now. Interviewed older people, such as Ms. Bi, 75, living in Jin-sheng community, and Mr. Chen, 72, living in Da-hu, were very pleased to see the improvement of road conditions.

"*After the improvement of the neighbourhood, the road has become flatter; in the past the pavement was uneven. It's very good, older people get more consideration.*"

(Mr. Chen, 72, Da-hu)

Uneven pavements are one of the built environment barriers that will constrain older people's mobility (Lavery *et al.*, 1996). Improving objective walkability, which is featured by smooth surface and comfortable and safe pedestrians, should become a priority policy area for governments (Loo *et al*., 2017). Spinney *et al*. (2009) hold that mobility is a critical element

of one's QoL. Older people become more and more concerned with the immediate environmental context due to their limited mobility (Rowles, 1978). In this sense, improved road conditions within communities would enhance well-being of older people, especially who are very old or frail, through providing safe immediate physical environment for them to use outdoor spaces, for instance, Mr. Hu, 80, living in Da-hu, was able to walk around his home every day though he was frail.

Massey (1993) argues that place should be viewed as having multiple and dynamic social constructions. This argument shows that place will change with the alteration of its multiple intangible aspects. For instance, when a neighbourhood is experiencing so-called gentrification, it will be reasonable to say that this place is changing, because gentrification will bring significant changes in residents, culture and local relationships. From the intangible perspective, more places in Anqing are becoming age-friendly in having respects for older people. For example, as presented in section 6.2.4, car drivers in the city have gradually realized they were required to give way to pedestrians, though driver education is still in process. It is apparent that compared with the situation in the past as Mr. Ding, 73, of Da-hu indicated, ongoing changes in these places did bring older people more sense of being respected, which could enhance their psychological well-being.

Reflecting on urban physical and social environments, the influence of changing place on older people's well-being can also be discussed on a larger scale. The case of Hong Kong shows that "Chinese tradition of 'respecting older people' is less recognized and treasured"(p.149) in the city because the public and the government often pay too much attention to economic growth, ignoring social development (Chan, Lou and Ko, 2016). Findings of the research also show that older people are not treated respectfully in some places. For example, as presented in section 6.2.10 and 6.2.11, older people experience problems when using bus services due to unfriendly attitudes from passengers and drivers occasionally. Thus, it is reasonable to argue that with continuous improvement in urban physical settings, more attention needs be given to attitudinal issues that create the social environments.

6.4.3 *Pride of place*

Place attachment, personal competence and agency could help older people to overcome difficulties and live better in deprived communities (Smith, 2009). Basically, old communities tend to have more issues in relation to management and outdoor spaces, such as the problem of informal car parking. Under such circumstance, local older people, especially who were community activists, tended to be more concerned about existing issues and more committed to contributing to their communities.

"In the past, I used to throw garbage away on the ground, but now I won't, because we have such a nice environment now, so I can't destroy it, I put garbage into the garbage bin, right?"

(Mr. Ding, 73, Da-hu)

Mr. Ding of Da-hu is a member of the community voluntary service team. As a community activist, Mr. Ding was aware of the importance of protecting the community environment. Identifying and reporting environmental problems was one of the tasks of the voluntary service team, but their concerns go beyond environmental issues. For instance, according to Mr. Hu, 80, leader of the service team of Da-hu, the team members also engage in persuading some residents to remove their unauthorised construction that could be harmful to other residents' rights, in favour of helping to improve the area project. Moreover, these community activists also contributed to the community development by publicizing the benefits of the improvement project in the community, and according to Mr. Chen, 72, member of the service team, most of local residents of Da-hu supported the project.

Interviewed older participants in the other two case study communities also conveyed their sense of belonging and even pride in their communities. Some older people in Tai-ping-si also expressed their concerns about the community facilities, and some tried to look for ways to solve these problems, for instance, Mr. Wang, 72, was proud of his community and wanted it to look its best so he had tried to contact maintenance staff for broken fitness facilities. The dance team of Rong-sheng engaged in a wide of cultural activities.This was a very active dance team, for the members not only performed locally quite often, but also took part in some contests elsewhere such as in Beijing and Hong Kong. Responses from the focus group

with the team heard these older women expressing not only their extraordinary love for dancing and performance, but also their sense of collective belonging.

The dance team's activities are not confined to Rong-sheng community, instead, the team members often serve for the larger society. According to the team members, they used to perform to see off the army for helping in fighting a flood, performed every year to see off young people who join the army, and performed at care homes. The dance team members' contribution to the community and society, as well as their spirit of persistence, are also appreciated by some other older people.

"We used to see them performing in the street in freezing, windy weather, but they expressed their spirit, then what did they do these things for? To bring us pleasure… I saw their performance before, although I don't take part in their activities, I am very touched by these things. Right? These women are all aged, but they dedicated themselves selflessly."

(Mr. Zhang, 74, Rong-sheng)

Local older residents of Rong-sheng, for instance, Mr. Zhang, appreciated the dance team's contribution. The team members told the researcher they did not get any economic benefits from performance and their activities were self-funded. These older people's activities indicate their desire to serve the public, taking the focus away from individual to society, in which collectivism might be a critical factor in driving their activities.

In the Chinese context, collectivism has been shaped by the three major cultures: the political culture of socialism, the traditional culture of Confucianism and the religious culture of Buddhism. Firstly, all of these older women experienced political movements during the 1960s and 1970s; for instance, during the Cultural Revolution, Chinese people were educated to dedicate themselves to the cause of communism and the state. Even today, the Chinese government advocates socialist values, in which dedication to society is highly praised. Secondly, the government is promoting the revitalisation of traditional Chinese culture, which is dominated by the thoughts of Confucius. Confucianism encourages people to put their abilities to good use and contribute to society. Thirdly, Buddhism has extensive influence on Chinese lives. In particular, the majority of Chinese Buddhists are older people. According to religious doctrine, Buddhists should be kind and tolerant, and more importantly, they should

selflessly help others in need. In the case of the dance team, Rong-sheng provides a platform for team members to use their talent and skill to contribute cultural activities to society, and these older women' dedication is understood and praised by new counterparts who have the same cultural experience.

People can develop subjective perceptions on their places (Jivén and Larkham, 2003; Norberg-Schulz, 1980), including rich experience, a sense of belonging, and meaning (Dovey, 1991; Ryan, 1995). A deeper affection of people, i.e. intimacy, can further be extracted from their perception of place. Because of intimacy, home and hometown, as well as homeland, can be qualified to be "places". The phenomenon of different places reveals the fact that "[p]lace exists at different scales", ranging from "a favourite armchair" to "the whole earth" (Tuan, 1977, p.149). Hence, "a place is not an absolute object with exact borders that may be drawn on a map" (Røe, 2014, p.503).

In this sense, urban spaces, especially communities, tend to be commonly recognized "places" for most older people, because the immediate living environment plays an important role in their later lives (Rowles, 1978). For those older people in the three communities, their pride of communities was developed from the sense of place, in particular, the sense of community. The so-called "sense of place" is to be inside "your place both as an individual and as a member of a community" in a place (Relph, 1976, p.65). A sense of community is positively associated with life satisfaction in Chinese older adults (Zhang *et al*., 2017). Furthermore, it is argued that place should provide older people with support for active ageing, enabling self-care and self-management and facilitating social inclusion (Woolrych, 2016). Older people will experience a sense of autonomy, control over their everyday lives, increased self-confidence and social integration by building up an affective connection with their living environment (Smith, 2009).

However, these older people experienced some difficulties that frustrated their pride of place. According to Ms. Hu, 65, leader of dance team of Rong-sheng, the team members had to face up to conflicts with neighbours when performing outdoors, because some other residents did not view their performance as a contribution to the community but simply a nuisance. Mr. Hu, 80, leader of the voluntary service team of Da-hu said, local community activists came across some obstacles when trying to persuade some residents to removing unauthorised buildings and failed. These findings reflected changing and varied community participation in Chinese cities. As China becomes a more economically prosperous country with more influences from

western goods and cultures there is an inevitable drift of values so that the "we" that was understood and valued by older people and by government is threatened to an extent by the rise of individualism that is also promoted by central government in its plans to make China the world's top economy. One of the tests for China is its ability to hold on to older values of the common good and the value of non-economic contributions.

6.5 Summary

This chapter discussed age-friendliness of urban public spaces and the three case study communities of Anqing and explored more aspects of age-friendly environments through three dimensions of place, including place aesthetics, changing place and changing people, and pride of place. These discussions could provide an answer to research question, i.e., **How age friendly is the built environment in a developing Chinese city?**

Generally speaking, none of the aspects of outdoor spaces of Anqing's outdoor spaces has fully attained the requirements of the WHO's age-friendly checklists, although some have been improved. For instance, the public areas were basically clean and the urban environment had been improved. Nevertheless, the issues of dog mess was identified as a major problem in the outdoor environment. On the other hand, some aspects became worse due to rapid growth both in the economy and space of the city. For example, with the number of automobiles increasing rapidly parking on pavements took place frequently, to the detriment of older people's safe mobility. Apart from physical environment, there were some improvements in the social environment. For instance, more and more cars drivers started to be aware of the traffic rule of giving way to pedestrians. But, nonetheless, occasionally older people were not treated well when using bus service because of unfriendly attitudes of the bus drivers and younger passengers.

Among the three case study communities, Da-hu is more age-friendly than Rong-sheng and Tai-ping-si, because Da-hu has lower building density, and a higher number and better quality of associated amenities. Moreover, the improvement project conducted in Da-hu has improved its outdoor environment significantly. In contrast, Rong-sheng and Tai-ping-si lack sufficient outdoor activity places and recreational facilities. The issue of car parking was a common problem in the three communities, which also reflected a lack of effective management.

The beautification of place in Anqing was recognized and welcomed by local older people. The improvement of urban environment was promoted by the city's development, but the rapid economic growth also brings about some issues in relation to place aesthetics, for instance, the traffic noise. Hence, the local government should pay more attention to intangible issues existing in the urban outdoor spaces rather than only focusing on physical aspects of place aesthetics.

With fast socio-economic development, Anqing's physical environment is also experiencing changes. Some changes in outdoor spaces throughout the city have been identified as positive factors that change older people's later lives through promoting their well-being. In particular, for older people in a developing Chinese city, with more positive changes taking place in the urban outdoor spaces, their physical and psychological well-being could be improved significantly. However, more attention needs be given to the issues in social environments, such as attitudes of bus drivers and younger passengers.

Older people, especially older community activists, tended to have a sense of pride of their communities: they were more concerned over existing issues and more committed in contributing to their communities. The pride of place among these older people might be attributed to three very different Chinese cultures: socialism, Confucianism and Buddhism. However, this may be threatened by shifting values.

Chapter 7. The role of planning

7.1 Introduction

This chapter answers the last research question: **How can urban planning support older people to age well?** The discussion addresses three aspects: the political responses to the issues of population ageing; planning professionals' opinions and advice on how to support older people through place-making; and the place of population ageing in current planning education.

The evidence for this chapter is drawn from two sources: one is based on interviews and a focus group with planning professionals, including urban planners and planning professors, and the other one is an analysis of related planning policies and documents, as well as planning education materials, including course information and textbooks.

This chapter starts by outlining the boundaries for planners based on the planning professionals' concerns within and beyond the field of planning. And then the chapter focuses on political response to ageing issues both at national and local levels. In the next section, drawing upon their own professional practice, urban planners identified issues that needed to be addressed and put forward their views in how Chinese cities might become age-friendly. Finally, the chapter explores the role of planning education, in which the discussion focuses on three major topics: the nature of planning education in China; planning at higher educational institutions and the role of textbooks.

7.2 Where are the boundaries for planners? Professionals' concerns beyond the field of planning

A series of historical events contributed to the development of modern urban planning thinking, such as the UK's public health reform in the mid-19th century, the UK's Garden City movement of the early 20th century, and the City Beautiful movement in the US in the late 19th century. Today's urban planning, as scholars argue, has to take a broader set of challenges into consideration, such as encouraging sustainable development (Säynäjoki, Heinonen and Junnila, 2015), efforts to reduce global warming (Viegas, *et al.*, 2013), addressing urban sprawl (Tian, *et al.*, 2017), facilitating consensus among different stakeholders (Ozdemir and Tasan-Kok, 2017), and also contributing to the economic, socio-cultural and political integration of international migrants (Friedmann, 1995).

The focus of planning has been enlarged from the spatial dimension to a broader range of aspects. Chinese planners may play a variety of roles in their effort to influence local government decisions on urban development (Perlstein and Ortolano, 2015). However, planning practitioners often tend to define the nature of planning based on their day-to-day experiences, which may be quite different from those of academic researchers (Edwards and Bates, 2011). In the interviews, the planning professionals conveyed their concerns about ageing-related issues and mentioned the limited role of planners in addressing these, which also outlined the boundaries of planning.

"The construction of an Age-friendly City involves not only planning, but also many other fields. For instance, our bus services, accessible facilities and medical services, all of these matter."

(Mr. Wang, Planning Institute of Anqing)

China is the most populous country in the world. Although effective measures were implemented at the end of the 1970s, the country's population is still growing, though at a slower rate, and its peak will occur in around a decade's time. This growing population and in particular its growing ageing population has become one of the biggest challenges. Although the One Child policy has been abandoned by the government concerned about the supply of future workers, it is predicted that the birth rate will continue to be low (Zeng and Hesketh, 2016).

Planners, such as Mr. Cai and Mr. Wang of the Planning Institute of Anqing, realised that the role of planning in delivering age-friendly cities was important but its function would become less influential if they lacked co-operation with professionals from other fields. The main contribution of urban planners is to provide or improve the layout of urban spatial elements, including planning and constructing facilities for older people, but effective management is also needed.

"…I think these issues can be attributed to two points. First, older Chinese cannot make their voice heard efficiently, and secondly, the country is developing too fast, so many details are not taken into account."

(Mr. Xiao, Planning Institute of Anqing)

Mr. Xiao of Planning Institute of Anqing expressed his concern about the level of civic participation by older people. Although China has a Law on the Protection of the Rights and Interests of the Elderly, and the Planning Law also highlights public participation in the planning process, older people lack convenient and effective ways to make their voice heard. Traditional Chinese culture stresses respect and care for older people, but there is also an increasing volume in recent years of news reports and public opinions that convey negative perceptions of older people. The common activity of older people's square dancing in open spaces has provoked wide disputes, because many people think this activity disturbs the peace. These negative views were keenly felt by the dancers of Rong-sheng. If this is indicative of an emerging intergenerational conflict will this make older people less willing or able to make their concerns heard or their views dismissed more readily. In particular, Mr. Xu of the same institute remarked that those who are very old or live with disabilities are experiencing more difficulties in receiving good services and making their voice heard. Moreover, as Mr. Xiao said, China is experiencing incredibly fast economic development and this is the government's main focus, so, those who are no longer economic actors may be given lower priority.

The interviews and focus group with urban planners uncovered not only their opinions of spatial planning challenges for an age-friendly city but also a broader set of societal concerns that impact on older people. First, China's huge population and rapid economic development have diminished the social resources spent on providing facilities and services for older people. Second, planning can provide facilities and create more age-friendly space for older people, but stakeholders from other fields, such as public service providers and medical professionals, need to co-operate with urban planners and contribute more to community and health services, civic participation and employment. Third, very old people, especially those that are frail or disabled, may need more attention and care from the government.

7.3 The national response: An evolution of central government focus

Urban planning is a matter of government policy, and in a country like China, with centralised control, the political response to ageing will shape the role of planners. Some planning professionals, for instance, Ms. Wang of planning institute in Hefei, stressed the link between planning and politics.

"I think producing plans is surely highly related to the country's policy. I mean the more policies the country introduces, the more attention we urban planners will pay."

(Ms. Wang, urban planner of a planning institute in Hefei, Anhui)

As a planning educator who started his career in the 1980s, Prof. L., planning educator of an university in Hefei, Anhui, reviewed the political response to the issue of population ageing at different historical stages. The population aged 60 or over made up more than 10% of China's total population in 1999, and since then, the population aged 60 and over has grown to more than 220 million or 17% of the total. In response to this significant demographic change, the central government of China (the State Council) has issued a series of policies. These are presented in Table 7.1.

Table 7.1 National policies on ageing after 2000 (Source: author)

Date	National Policies and Documents	Content and Comment
21st August 2000	"The Decision on Strengthening the Commitment to Older People" (State Council of China, 2000) ("中共中央、国务院关于加强老龄工作的决定" 中发〔2000〕13 号)	This historic decision puts ageing-related issues in the national developmental strategy
3rd November 2000	"The announcement of The Ministry of Construction on implementing the State Council's Decision on Strengthening the Work for Older People" (Ministry of Construction of China, 2000) ("建设部关于贯彻《中共中央、国务院关于加强老龄工作的决定》的通知"建标 [2000]249 号)	Requires stakeholders to consider service facilities for older people in plans

Date	National Policies and Documents	Content and Comment
16th December 2011	The State Council issued "Plan For the Construction of Social Elderly Care Service System (2011-2015)" (State Council of China, 2011) (社会养老服务体系建设规划（2011－2015 年）国办发〔2011〕60 号)	Promotes the improvement of accessible facilities in urban areas, and enhances the development of home-based services and construction of community service facilities
6th September 2013	The State Council issued "Several Opinions on Accelerating the Development of Elderly Care Service Industry" (State Council of China, 2013) ("国务院关于加快发展养老服务业的若干意见" 国发〔2013〕35 号)	Strengthens the construction of community service facilities, and sets a per capita land standard for the construction of elderly service facilities in new neighbourhoods should not be less than 0.1 m^2, and old neighbourhoods with fewer facilities must achieve the standard by purchasing, replacing or renting within a definite time. In addition, the policy requires that the service radius of qualified day care centres as well as older people's activity centres should cover all urban communities
28th January 2014	The Ministry of Housing and Urban–Rural Development (MOHURD) issued "The Announcement on Promoting the Work of Planning and Construction of Elderly Service Facilities" (Ministry of Housing and Urban–Rural Development of China, 2014) ("关于加强养老服务设施规划建设工作的通知" 建标[2014]23 号)	Demands effective implementation of the requirements proposed by previous national policies, especially the "Several Opinions on Accelerating the Development of Elderly Care Service Industry" issued in 2013, and further stresses the inspection of plans and constructions for new neighbourhoods. However, the document does not set requirements for old neighbourhoods

Date	National Policies and Documents	Content and Comment
18th November 2015	The Guidance on Promoting the Integration of Health Care and Elderly Service (State Council of China, 2015) ("关于推进医疗卫生与养老服务相结合的指导意见" 国办发〔2015〕84 号)	Promotes the integration of medical service and elderly care service for older people, and requires that by 2020 all medical institutes will set up prompt services for older people and all community service centres are able to provide basic medical treatment
28th February 2017	"The 13th Five-Year National Plan for Developing Undertakings for the Elderly and Establishing the Elderly Care System" (State Council of China, 2017) (" '十三五' 国家老龄事业发展和养老体系建设规划" 国发〔2017〕13 号)	Devotes a separate chapter to building an age-friendly environment, including the construction and transformation of accessible facilities of roads, buildings, public transport, especially ramps, stairs, lifts and handrails

The early policies focused on the provision of care services for older people. In China, the huge population and fast-growing number of ageing citizens have caused severe tension between the country's limited social and medical resources and the increasing needs of care services for older people. As a consequence, the Chinese government needs to look for suitable places to build up public medical clinics that could cover most urban areas. The community is the best place to achieve this goal in China. This form of social unit in China originated from the commune, which was a small and deliberately planned community that existed before the economic revolution in late 1970s. Each commune provided medical services for local residents (Muennig, 2014). Today, based on this historical experience and the needs of governance, the central government decided to overhaul these communities (Muennig, 2014). Therefore, providing community-based places for these services for older people becomes a natural response from the government, and in this sense, the ageing issue became a planning issue.

The publication of these policies and documents indicates governments' growing response to increasing needs of older people in their later lives. For instance, they might demand more

activity space in their communities, more handy medical services when they are ill and more accessible facilities across the city. Chinese governments used to put economic development first, but the introduction of these policies and documents shows a realisation that the drive to economic growth may be tempered by concerns for quality of life. In addition, as Ms. Wang pointed out that, some other national strategies also reflect the policy-makers' concerns about people's needs, for instance, the "New-type Urbanisation".

 "*In recent years… against the background of the New-type Urbanisation, there might be some concerns about some basic elements of humanity. These things are receiving increasing attention… after 2013 or 2014, the guidance [of the government] has led gradually to thinking about care for basic elements of humanity. After that, recently, some relevant policies have been published.*"

(Ms. Wang, urban planner of a planning institute in Hefei, Anhui)

> "*To take human-oriented urbanisation as the core… provide basic services to all urban citizens, improve population quality, advance all-round development of people…*"
>
> (Extract from "National New-type Urbanisation Plan")

In March 2014, the State Council released the document "National New-type Urbanisation Plan (2014-2020)". This "new-type urbanisation" is characterised by person centred ecologically responsible, smart, low-carbon, green and environment-friendly features. In a nutshell, "new-type urbanisation" focuses on sustainable urban development. One critical goal of sustainable development is to meet the needs of people.

However, for a long time, the Chinese government always put economic growth first when making political decisions, ignoring sustainable development. As a consequence, this has caused deterioration in the environment, damaging both rural and urban citizens' well-being. Therefore, in response, the government has made a pledge to pay more attention to life course issues, which includes care for older people (Xinhua News Agency, 2015). As a response to this, the plan mentions "human-oriented consideration" five times, and makes it one of the critical guiding principles.

The publication of this plan offers a starting point for developing a more age-friendly city, because city leaders are required to consider the well-being and needs of urban residents during their decision-making processes. For urban planners, the policies as well as the documents shown in Table 7.1 provide the most important basis for planning when they are producing plans that impact on older people's lives. From the table, it can be identified that, early policies focused only on care services, thus, the planning documents at that time stress the planning and construction of community-based service facilities, such as day care and activity centres, while the newer policies and documents pay increasing attention to broader public realm and an age-friendly physical environment.

The shift of focus indicates the government is acknowledging broader aspects of the age-friendly city. For instance, a separate chapter of "The 13th Five-Year National Plan for Developing Undertakings for the Elderly and Establishing the Elderly Care System" gives more details of how to plan the construction of an age-friendly city:

"*Chapter 7. Promoting the Construction of Age-friendly Environment*

●Section 1, The Construction and Transformation of Accessible Facilities

To implement related laws and regulations strictly,… enhance the accessible design or transformation of the public facilities, such as roads, buildings and public transport. Strengthen the accessible transformation of public facilities in neighbourhoods, focusing on ramps, stairs, lifts and handrails of buildings…..

●Section 2. Creating a Safe, Green and Convenient Living Environment

…Strengthen the inspection for hidden hazards of care service facilities for older people. Promote the energy-saving transformation of these facilities… support construction of outdoor lifts in old multi-storeyed apartment buildings. Guide and support the development of age-friendly residences. Continue to advance the construction of associated facilities of streets and communities in order to provide a "one stop service" for older people….."

(Extract, "The 13th Five-Year National Plan for Developing Undertakings for the Elderly and Establishing the Elderly Care System")

Second, the planning documents set out more specific mandatory requirements for the planning of new neighbourhoods to include elderly service facilities. In contrast, the policy on

old neighbourhoods encompasses more flexible suggestions. This point is clearly embodied in the case of "Several Opinions on Accelerating the Development of Elderly Care Service Industry", which is the only national policy so far that addresses the issues of old neighbourhoods. However, the document only suggests "purchasing, replacing or renting within a definite time" in order to improve facilities for older people instead of setting mandatory requirements.

7.4 The local policies: More detailed action plans by local governments

Due to regional disparities across the country, including population, topography and economic development of different areas, the central government sets out policy frameworks for devolved decision-making by local governments. Therefore, local authorities of provinces and cities are entitled to make and issue regulations according to their own context to achieve the goal and objectives of the national framework. Taking Anhui for example, this province, according to Ms. Wang, had been one of the first provinces in the country in developing local policies to address ageing-related issues.

"*Anhui province is going ahead in this field in recent years. The guideline on public service facilities published by Anhui province is the first one in the country… In addition, it also made guidelines on the design of building for older people… it was led by the department (of housing and urban–rural construction) of the province.*"

(Ms. Wang, urban planner of a planning institute in Hefei, Anhui)

Before the first central government policy, Anhui province recognised it was an ageing province in 1998, when the province's older people – aged 60 or above – accounted for 9.77% of its total population. By the end of 2017, the over 60s had increased to 11.02 million, or 18.16% of the total population (Bureau of Statistics of Anhui Province, 2018). Anhui has a larger ageing population compared with the other Chinese provinces, but as a developing province, it is short of funds to respond adequately. The majority of older people of this province are still living in their own home; nevertheless, due to the change in family structure as a result of the One Child policy, as well as younger generations' increasing work pressure, the traditional family-based care for older people is facing increasing challenges. Therefore, the province is looking for cost-effective solutions to ageing issues.

In 2016 the provincial government of Anhui issued the "Guideline on the Construction and Planning of the Elderly Care Service Facilities". The document aims to "provide older people with a safe, convenient, comfortable and clean living environment, raise the standards of planning and constructing facilities for older people, and standardise the contents and the technical depth of the planning and construction of the elderly care facilities of the province". The so-called "elderly care facilities" will be able to offer a wider range of services. In the past, care homes used to be the almost the only form of provision, and the services provided there could be basic and low quality. Currently, older people have many more options; for example, the care service station in the communities of Anqing can offer meals, basic medical treatment and accommodation.

In addition, the guideline sets a series of technical standards, covering aspects such as the site plans and architectural design. For instance, the basic technical requirement of the guideline is that the per capita land area for elderly care facilities must be no less than 0.2 m^2, and the number of beds of these facilities must be more than 45 for every 1000 older people. Furthermore, in the section on activity places, the guideline sets out specific requirements. Part of the chapter "Site Planning" has been translated into English and is presented as follows:

> *"Chapter 5. Site Planning*
>
> *5.1 Site and Building*
>
> *●5.1.1 Site arrangement should depend on the type of facilities for older people, and it should have clear functional division, traffic system and signs.*
>
> *●5.1.2 Building density on site should not be above 30 per cent; floor area ratio ranges between 1 and 1.5 in general, more specifically in urban area should not be above 2.0, in the other area should be not below 0.8.*
>
> *●5.1.3 The building orientation should be arranged well according to local latitude and climate, and it should meet the related sunshine requirement.*
>
> *●5.1.4 Places for older people's recreation and fitness should be put on the site, and the slope of these places should not be above 3 per cent. In addition, the design of the place should comply with the following requirements:*
>
> *(1). The area of an activity place should not be less than 1.2 m^2 per older person.*
>
> *(2). An activity place should be exposed to the sun but sheltered from wind, and half of an outdoor activity place should not be in the shade of surrounding buildings.*
>
> *(3). An activity place should be level, and drain smoothly; moreover, it should have an antiskid surface.*
>
> *(4). An activity place should have fitness facilities, a pergola and seats, and these facilities should be exposed to the sun in winter and provide shade in summer.*
>
> *(5). An activity place should holistically take into consideration the arrangement of lighting, signs, security monitoring and acoustic equipment.*
>
> *●5.1.5 Public toilets should be built near an activity place, and should be accessible to disabled people.*
>
> *●5.1.6 The waterscape should not be too deep, and protection measures should be adopted if the depth is above 0.6 m.*
>
> *●5.1.7 The site planning should comply with requirements of accessible design."*
>
> (Extract, "Guideline on the Construction and Planning of the Elderly Care Service Facilities" of Anhui province)

The early practice of Anhui province is now being followed by other provinces, such as Fujian, another province caught between out-migration of younger people and a poor supply of attractive care solutions for older people. Furthermore, some cities have already modified city plans to provide more and better-quality care and services for older people. For instance,

Hangzhou, the capital city of Zhejiang province, revised its overall city plan (2001-2020) in 2014, aiming to improve the construction standards of public facilities for older people (Hangzhou City Planning and Design Academy, 2016). This revised overall city plan was approved by the State Council in January 2016 (State Council of China, 2016a). In short, the practice of Anhui and Hangzhou shows that local government at both provincial and municipal levels are taking actions to change planning documents and urban plans in order to create a more age-friendly urban environment.

In spite of new attention to open space and the accessible urban space there is a continued attention to proving better care facilities and for these to be community based. In September 2017, the city government of Anqing issued a construction plan-"Construction Plan for Elderly Care Service System in the Urban Area of Anqing 2017-2020"- for the care service system for older people. The plan sets out a series of tasks, including improving care service facilities. In particular, the plan promotes the work on *yi yang jie he* (医养结合) or the integration of medical service and elderly care service that was proposed by the central government in 2015. According to the plan, the city government aims to provide 2,200 nursing beds by 2020, making them account for at least 30% of the total beds in elderly care service facilities.

The national policies issued by the central government provide a framework for the planning process, allowing local governments to make further detailed plans. The operation of ageing-related policies at the national and local levels demonstrate that government orders are obeyed strictly throughout the political system, and the local governments have made actions to implement the policies from higher levels and further set out more specific plans in order to achieve the goals. It can be identified that local policy-makers not only comply with the national policies, but also further make more detailed plans according to local situations. In other words, compared with the general requirement set by the central government, local guidelines seem to be more flexible in dealing with the latest planning issues.

However, two issues have been identified here: first, the speed of updating national planning documents lags behind that of their local counterparts, and thus, local documents need to comply with out-of-date requirements; second, as Ms. Wang, urban planner of a planning institute in Hefei, Anhui, identifies there is a "bottom line" in technical standards of planning documents, because according to Chinese laws, the local regulations must comply with those set by the central government. Thus, the Anhui guideline is still based on the national

standards, i.e., the "Design Code for Buildings of Elderly Facilities"; for example, both the national and local documents require that the land area of an activity place for older people should not be less 1.2 m^2 per older person. National policy tends to set minimum requirements and offers a flexible range of standards for local governments to select based on diverse regional conditions. However, the private sector often seeks to meet only the minimum standard to maximise profit. Even in the public sector the government needs to prioritise cost-efficiency issues.

7.5 Implementing planning policies: Professionals' experience and opinions

7.5.1 *Implementation of planning processes*

Urban planners are playing an important role in producing urban plans at different levels. But the extent to which these urban plans address population ageing also depends on planners' responses to the policies and documents as well as their understanding of the impact of ageing on spatial planning. Findings of interviews with planners, for instance, Ms. Qin of the Planning Institute of Anqing, show that they have already addressed some ageing-related issues during their practice.

"*I remember I used to work on a regulatory plan. There was an old neighbourhood, and the local residents told us they were lacking associated service facilities, so they needed a service centre for older people… we selected a brownfield site near the neighbourhood for constructing a new service centre, and it'll be a separate building with about nine storeys.*"

(Ms. Qin, Planning Institute of Anqing)

Currently, since the central and local governments have issued more ageing-related polices and documents, urban planners in China are required to implement these during the planning process. In particular, they must comply with some mandatory planning requirements, such as the space allocated for older people's facilities in newly built neighbourhoods. The planning authorities inspect planning progress, and plans that do not meet these requirements will not

be approved. After construction, planning officers also conduct on-site inspections to ensure that the facilities for older people are constructed based on the plan.

For planners, carrying out on-site visiting and collecting local stakeholders' opinions are necessary early stages of progressing an application, because, according to the Planning Law, planners should consider public opinion during the planning process. Although the political system of China is very different from that of the Western democratic countries, Chinese people are still making their voice heard; for example, they can contact local members of the People's Congresses and Chinese People's Political Consultative Conference (CPPCC) about their problems. The members of the People's Congresses and the CPPCC are required to listen to the people and unearth social issues throughout their daily work.

It is argued that a better practice pathway to encourage civil organisations in China to grow is to make full use of the government's expanding space and to actively participate in public governance, rather than placing too much emphasis on its "independence" (Yu and Zhou, 2013). However, China's civil society is under pressure, and it is unlikely to inject new impetus into political reform because the space for civic participation has been shrinking (Yuen, 2015). Although today's older Chinese have a higher level and wider scope of civic engagement than previous cohorts, constraints, such as social stratification and family care work, are limiting their equal and active civic participation (Chen and Adamek, 2017).

7.5.2 *Does planning address actual needs of older people?*

In the interviews with planners from the Planning Institute of Anqing, the professionals discussed their concerns, and the issues most frequently mentioned were the growth of the ageing population and its increasing diversity.

"*Here comes a problem. I think probably our urban plans frequently don't accommodate actual needs of local people…. In other words, the standards of planning don't keep pace with the times…. I mean in the future there might not be many older people that use those facilities, and operation and management might bring us more issues.*"

 (Mr. Wang, Planning Institute of Anqing)

Interviewed planners of the Planning Institute of Anqing tended to be cautious about the role of planning in addressing older people's needs, because as Mr. Wang contended that, out of date technical standards could cause a waste in setting up too many facilities for older people. Mr. Xiao argued that future generations of older people might have quite different activity patterns, and Mr. Cai stressed that older people have their own preferred activity places and life styles, thus, policy should not provide a fixed checklist, instead, planners needed to investigate local older people's actual needs. The planners' perception could be further discussed in the following three points.

First, older people only make up a small proportion of new neighbourhoods: however, it is in old neighbourhoods where greater proportions of older people are found. Therefore, it makes sense that facilities are concentrated there for the present. But current policies do not detail interventions but only stress some general principles. For instance, in accordance with national policies, the latest planning document, "Construction Plan for Elderly Care Service System in the Urban Area of Anqing 2017-2020" published by the city government of Anqing still provides quite general suggestions including purchasing, replacing or renting in order to provide more facilities in old neighbourhoods.

Second, as Mr. Wang said, the predictions concerning the population of older residents in communities are not precise. In recent years, the Chinese housing market has constructed a huge number of dwellings, and according to the news from state media, one of the critical issues is the high vacancy rate, which is more common in small cities and in the northeast (Zheng, Wang and Tu, 2015). These areas, including Anqing, tend to have slower economic development, and as a consequence, the growth of urban population in those cities is also low. However, existing policies seem not to take these future changes into consideration, for instance, will these old neighbourhoods still have a large number of older people in 20 years?

Third, policy-makers and planners need to understand the consequences of diversity. Their lifestyles and activity patterns may vary according to their different backgrounds, impacts of various social and economic development, and cultural environments. Significant factors include class, income, access to technology, experience of travel and education level. As the director of the U3A of Anqing said, the recent years have seen an increasing number of older people coming to enrol in classes. In the future, more older people might choose to study online; however, given that human beings are essentially social creatures, it may be supposed that they will continue to want social connections. How these factors play out is difficult to

predict though it is not a matter of either or but both but in what number. All these possibilities need to be taken into account when planning at the local level.

7.5.3 Is the "Neighbourhood Centre" (邻里中心) a potential solution?

In old neighbourhoods, the biggest issue when providing activity places and facilities for older people is lack of space, which was also reflected in the interviews with the planning professionals. The opportunity to regenerate old neighbourhoods may produce more outdoor space, but planners raised their concerns over this. Mr. Xu found that in old neighbourhoods open outdoor spaces would always be occupied by cars as was found in the field work.

This phenomenon happens more frequently in old neighbourhoods, because they lack effective management and there is great tension between car parking needs and the needs of people. This is evidenced by Da-hu Community and Tai-ping-si Community: the former has a relatively large amount of space, clearly marked signs showing parking areas and activity spaces, and relatively effective enforcement, but in contrast, the latter has a smaller amount of space and less effective management measures. Consequently cars were more frequently found blocking activity spaces in Tai-ping-si.

In other words, in most old neighbourhoods, planners may find it difficult to specify car parks because of limited outdoor spaces, and local governments seem not to be able to enforce parking regulations efficiently due to the increasing number of private cars. In these situations Mr. Xiao indicated, the best option may be to create larger activity spaces by selective demolition in old neighbourhoods. In light of this issue, the concept of the "Neighbourhood Centre" (邻里中心) was mentioned.

"….in some cities, like Hefei, they are promoting the construction of Neighbourhood Centres [lin li zhong xin (邻里中心)], trying to develop associated service facilities together and enhancing utilisation efficiency."

(Mr. Wang, Planning Institute of Anqing)

The model of the "Neighbourhood Centre" (Chinese: *lin li zhong xin* (邻里中心)) has been well developed in Singapore, and essentially it is a commercial centre that provides a wide range of services for local residents from nearby neighbourhoods, including shopping, catering, entertainment and a clinic.

Chinese planners are paying increasing attention to this concept, and some pilot projects have been implemented in Suzhou, Beijing and Shanghai. There is no neighbourhood centre in Anqing, but from an online search, one has been included in a plan for a new neighbourhood ("Wanjiang Mansion") to be located in the Eastern New Area of the city. The plan had been approved by the local planning authority and was displayed on the local governmental website in November 2017 (Bureau of Urban–Rural Planning of Anqing, 2017a; Bureau of Urban–Rural Planning of Anqing, 2017b). As Figure 7.1 shows, the neighbourhood centre will serve several neighbourhoods, mostly new ones. According to the plan, the neighbourhood centre will include a 2–4 storey shopping mall and an 11-storey building where more facilities and services will be provided.

Figure 7.1 Wanjiang Mansion neighbourhood centre in Anqing

 (Source: Anqing Planning Bureau official website,

http://ghj.anqing.gov.cn/ghjoldfiles/uploads/soft/171013/3-1G013120323.jpg, accessed 5 December 2017)

In Singapore, these facilities are guided and inspected by government, and commercial developers need to co-operate. However, the neighbourhood centre of Anqing would be funded and constructed by the private sector. Although the planning authority has inspected the basic construction content of the project, such as the green space, massing and car park, it is difficult to obtain more details about what facilities and services are to be provided and whether there will be any requirements for facilities and services for older people.

Second, in essence, the neighbourhood centre is a commercial centre; in other words, the services provided may need to deliver a profit. Therefore, facilities will not be free or even low cost. Currently, one of the biggest concerns of older people is the lack of activity space, and furthermore, the majority to have these freely provide or at low cost, as they do to attend the U3A or to play mahjong at the chess and cards rooms.

Thirdly, the neighbourhood centre of this case will be constructed in the Eastern New Area of the city, where the majority of neighbourhoods have been recently built. This area has (at present) low numbers of older people; conversely, areas with larger ageing populations lack such investment. The researcher argues that there are two major obstacles to constructing neighbourhood centres in these areas. One is the lack of sufficient space available to be used because of higher building density; the other one is the higher building demolition cost. As a consequence, the majority of older people in the city would have to wait a long time to enjoy the convenience of a multi-purpose neighbourhood centre.

Fourthly, there will still be a concern over the outdoor spaces that the neighbourhood centre will provide. According to the plan, the neighbourhood centre will have several squares; nonetheless, there is no further detail available in terms of traffic management, especially specific measures to prevent incursion by cars. Given this is a commercial area, although car parks, including an underground car park, will be able to provide parking for 297 cars, it is possible that this will provide inadequate in the face of demand from motorcycles and electric bikes.

7.5.4 *Management*

Community management covers maintenance of outdoor fitness facilities, keep of the environmental cleanliness and control over car parking. Findings presented in Chapter 6 chapters highlight the lack of effective management in most old neighbourhoods. The

response of planning professionals, such as Ms. Wang and Ms. Fang, highlights the issue of management once again.

"*…we can build public toilets in communities, and we can address the issue at both the level of design and systems, but when it comes to management, if we don't strengthen our management, for example, our activity room for older people, as a matter of fact, every neighbourhood has one, but is it really open to older people? That's a problem.*"

(Ms. Wang, urban planner of a planning institute in Hefei, Anhui)

These concerns were shared by Mr. Zhang (leader of Tai-ping-si Community) who said that management of one of the new neighbourhoods was poor because of insufficient management fees. To date, this neighbourhood has changed from gated to completely open, and the quality of its outdoor space has deteriorated. During the period of fieldwork, the researcher also identified the same issue in several communities in the city. For example, the Kang-ju-li neighbourhood was built only around ten years ago, but a man-made water course has run dry (Figure 7.2). In contrast, a pool in the Yu-jing-guo-ji neighbourhood is filled with water, and there are lotus flowers in the middle (Figure 7.3). The difference seems attributable to management.
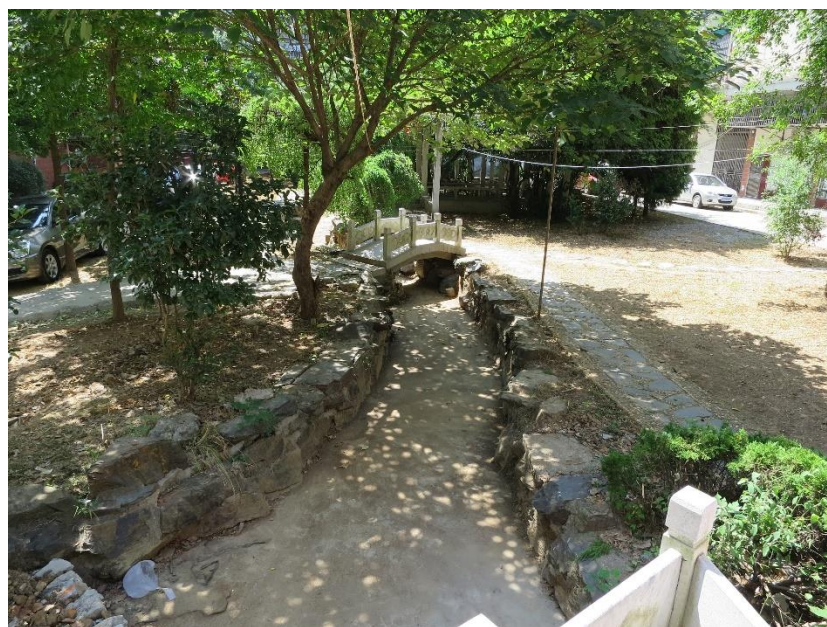
Figure 7.2 Dried-up water course in the Kang-ju-li neighbourhood (康居里小区)

(12/09/2016)

Figure 7.3 Pool in the Yu-jing-guo-ji neighbourhood (御景国际小区)

(12/09/2016)

In old communities, there are often problems with maintenance and environmental sanitation, such as refuse collection. Currently, in Anqing the fee for garbage removal is compulsory and is combined with the water fee, which is meant to guarantee the basic cleanliness of the city (Bureau of Commodity Prices of Anqing, 2014). Some low-income residents, including older people living on limited pensions, are not willing to pay more. Hence, although water fees are compulsory most old neighbourhoods do not pay for other services such as those enjoyed by people living in modern neighbourhoods where property management companies undertake repairs, maintenance or even 24-hour security for local residents. In these old neighbourhoods, the repair of street lights, for example, is dependent on the local authority.

Although the community committees of these old neighbourhoods try their best to solve older people's issues, the problem of funding is difficult to address. Even though the community leader intends to introduce management teams into the old community, it may be difficult to collect management fees from older people who are living on limited pensions. As a result, environments tend to degrade, which is definitely detrimental to older people's well-being.

Therefore, this may suggest that a new system is needed. For example, local government could collect management fees according to house values, which would mean that better-off

neighbourhoods pay more but do not receive more. In this way, wealthier areas subsidise poorer areas.

7.5.5 *How to create more community activity places for older people?*

One of the main objectives of the interviews with planning professionals was to present the issues arising from the fieldwork in Anqing, and ask them to consider potential solutions. Older people were greatly concerned over the issue of the quantity and quality of outdoor activity space, which has become more serious in old neighbourhoods.

"…we can transform large hard spaces into some activity places or green areas. For instance… to add more space for indoor activities, or enlarge the space for outdoor sports places… As long as the area of places of older people's activity increases, the facilities are not a big problem. At the level of design, I think we can address all issues."

(Ms. Wang, urban planner of a planning institute in Hefei, Anhui)

The biggest obstacle to the expansion of outdoor activity places in old neighbourhoods is the lack of sufficient space. A potential solution, as Ms. Wang proposed, might be a change of land use. For instance, if a community needs more activity space but there is no land for this, planners could transform part of community's green space into an outdoor activity place. The case of Rong-sheng Community shows the feasibility of this solution: a disused flowerbed was removed and replaced with an outdoor gym. In addition, more seats and activity spaces have been provided in this community after a transformation project.

The weakness of this method, however, is the loss of green space that some would value. Of course, the implementation of this process also needs the coordination of local government, and it must meet the technical requirements of the detailed regulatory plans. Furthermore, the city government of Anqing has published an official document requiring that the green space ratio of old neighbourhoods should not be lower than 25% after renovation (Anqing Municipal Government, 2014).

In light of this, outdoor activity places may need to integrate with green space. Taking the case of Rong-sheng again, a more reasonable option for creating the outdoor gym could be to

reduce the size of the old raised flower bed, redesign it to allow older people to sit round its edges; and plant grass on the gym area, which would also serve as a mat. Thus, in this way, this would facilitate older people's activities and in the meantime improve the environment.

Indoor activity space is also a big concern of older people, but planners held different points of view on this issue. Ms. Fang and Mr. Cai, argued that creating more outdoor spaces was easier and more applicable than indoor activity spaces, in contrast, other professionals, for instance, Mr. Xiao, redeveloping some existing indoor facilities to make better indoor activity spaces specifically for older people would be more practical.

Creating more indoor space for older people seems to be more difficult and costly. But, nonetheless, transforming existing rooms or buildings into facilities for older people is technically feasible, and the case of Rong-sheng Community also confirms its applicability: a two-storey building has been transformed into a care service station from an office building for residents committee. What is more important is that this method of creating indoor space for older people has been supported by national policy: "Several Opinions on Accelerating the Development of Elderly Care Service Industry" requires that old neighbourhoods must provide more service facilities for older people "by purchasing, replacing or renting".

7.6 The role of planning education: Evidence from planning courses and textbooks

Education and the nature of the planning activity are inextricably linked and interdependent (Campbell, 2004). However, major education gaps have been identified in many region-wide, global, long-term, cumulative, and strategically critical environmental elements (Tang, Burbach and Wei, 2010). This section will focus on Chinese planning education, to look for gaps in planning courses and textbooks in encouraging students to develop awareness, knowledge and skills in supporting older people to age well in their places.

7.6.1 *Context of planning education in China*

Planning practice in such a huge and populous country requires a large number of planning professionals. Thus, planning education has a critical role to play in cultivating urban planners and planning officers for the future. The history of modern education for planning in China dates back to 1947, when Tongji University in Shanghai opened the first planning course in the country. At that time, only three other universities in the world had planning courses:

Harvard, Liverpool and MIT. Though planning education had an early start, the civil war[25] and the turbulence of the Cultural Revolution (1966–1976) resulted in a lack of any real education development until the late 1970s, when the policy of reform and opening-up was implemented.

In China, the discipline of planning is officially named "Urban and Rural Planning" (城乡规划学), and it was a sub discipline of architecture until 2011, when the Ministry of Education published a new document on the classification of subjects, in which "Urban and Rural Planning" became an independent subject, but belonging to the field of engineering (Ministry of Education of China, 2011a).

After urbanisation, the huge needs of the development industry drove the development of planning education and, subsequently, the number of urban planners. Generally speaking, planning graduates can choose to work in the government as planning administrators, in the government-owned planning institutions, in the other planning enterprises as urban planners, or in the private sector; for instance, in the real estate development companies.

7.6.2 *Nature of planning education: Lacking an ageing-related perspective in place-making*

According to the website of the National Steering Committee of Urban and Rural Planning Education in China (NSCURPEC)[26], currently, more than 200 universities and colleges have degree-level planning courses. The undergraduate course usually takes four to five years to complete, the postgraduate course needs two to three years, and doctoral planning studies require three to five years.

To explore the nature of Chinese planning education, we need to have a look at planning courses first, taking the undergraduate course offered by Tongji University[27] in Shanghai as an example. According to the School of Architecture and Urban Planning's website, the course takes four years to complete, and students need to study 32 topics before graduation (Tongji University, 2014). Within these topics, seven of them are architecture-related,

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[25] The civil war between the Kuomintang and the Communist Party of China (CPC) broke out in 1945 and ended in 1949. The People's Republic of China was founded after CPC won the war.
[26] http://www.nsc-urpec.org/index.php?classid=5923 (accessed 20th June 2017)
[27] Tongji University is one of the top universities in China, and is in a leading position in both planning education and research.

including Building Structure, Building Tectonics, Introduction to Architecture, Basics of Architectural Design, Principles of Architectural Design, History of Architecture and Architectural Mechanics; five of them focus on the knowledge of civil engineering and design skills, which are Design, Descriptive Geometry and Perspective Drawing, Surveying, Engineering Economics and GIS. Similar planning courses at undergraduate level can also be found at other universities.

Although topics such as urban economy and sociology are mandatory in higher planning education, students receive more input and training in relation to urban spatial structure than social issues; for instance, knowledge of urban transportation and urban engineering.

Planners may take the national examination to become registered urban planners. Registered planners are required to receive continuing professional education each year, which is arranged by the China Association of City Planning (CACP) (2017). According to CACP, the syllabus focuses on five areas: 1. Urban planning and design practice; 2. Related national policies; 3. Regional issues; 4. Application of new technologies in planning; and 5. Trends of development of theories and industry of planning (China Association of City Planning, 2016). Similarly, there is little suggestion that CPD (continuing professional education) considers broader societal changes and the impact on place.

"*...the issue of population ageing is not only an issue in urban planning, but also a comprehensive issue in the society. …Our planning is experiencing transition, but no matter how it is changing, we'll need to take into account the issues of society, environment and economy; nevertheless, our urban planning still puts the spatial factors in the core position, which won't change. …So in the future… we need to revise the syllabus, adding ageing-related issues to it.*"

(Prof. L., planning educator of an university in Hefei, Anhui)

Planning education in China focuses on the spatial structure of cities and highlights the professional skills of plan-making (Zhao and Zhong, 1995). This can also be reflected in practice. Taking the overall city plans, for example, the most important part is the spatial arrangement of all kinds of important facilities within the urban area, including the location of facilities and the construction detail for different plots of land.

In addition, the researcher's experience of planning practice shows that, in a traditional plan-making process, a city's population is a critical index that determines the scale of the planning area; in other words, the population is often viewed as an amorphous statistic. However, this does not support shifts by policy-makers who are paying increasing attention to the needs of different age groups, in particular older citizens.

Findings from section 6.2 have identified a series of barriers in urban built environments with regard to older people's accessibilities, such as the lack of ramps at the entrance to parks, public toilets and shopping malls. To address these concerns, WHO (2007) highlights education for urban planners about older people's needs.

However, current planning courses fail to make a link between place-making and ageing well in place. For instance, drawing from discussion in Chapters 5 and 6, activity spaces have been identified as one of the critical factors in determining ageing well in place. Thus, the creation, improvement and protection of older people's activity places should become an important planning concern and topic in planning education. Furthermore, previous findings remind educators of three major points that may need to be addressed in future planning education.

First, planning courses may need to inform students about the role of activity space in supporting older people to age well in place, and inspire them to reflect how to achieve this goal in different built environments. The case of Rong-sheng indicates an applicable solution to this issue by replacing a flowerbed with an outdoor gym after renovation. But, nonetheless, this transformation could have been improved to create more seating space and keep the green space using a reasonable design. Having sufficient seats and green space are also two critical elements of age-friendly environments (WHO, 2007). Thus, one of the major tasks for educators is to show students what constitutes an age-friendly city, and planning an activity place includes paying attention to comfort and the need for green space.

Second, future planning education should raise planners' awareness of the diversity, which would change aspirations of older people. For instance, there might be a difference between the lifestyles and activity patterns of older middle class Chinese compared to working class elders, thus, the two groups' needs for outdoor spaces could be quite different. Therefore, planners would be required to better understand older people's needs and keep this alive by talking to older people, paying attention to societal changes and impact on lifestyles. In other words, flexibility needs to be considered when planning outdoor spaces.

Third, planning education should help students develop a sense of commitment to the protection of older people's places. This new task for educators has a special significance in Chinese cities, where a perpetual churn of demolition and new build takes place frequently (Gilroy, 2013). The discussion of Chapter 2 points to the important role of a familiar place in older people's daily lives, but findings from Chapters 5 and 6 show that in a developing city older people's power of keeping and improving their activity places in their own communities often faces challenges: the case of Tai-ping-si reveals that local older people's appeal for better activity places has long been ignored, and the government-led renovation project has failed to address their needs. Justice should be the guiding principle for urban planning (Fainstein, 2014), and as discussed previously in section 7.5.1, older people's civic participation is relatively low in China (Chen and Adamek, 2017); hence, urban planners are expected to shoulder more social responsibilities, and stand up for older people when their places are facing incursions from unreasonable urban renewal projects. In short, professional ethics should be given more attention in planning education.

7.6.3 *Textbooks: Require timely updates and greater content on older people's needs*

The education that planning students receive is heavily dependent on the choices of the small number of people who prepare textbooks (Klosterman, 2011). According to the national policy on higher education (Ministry of Education of China, 2010) and the related document published by the Ministry of Education (Ministry of Education of China, 2011b), the textbook should play a central role in higher education. This is in marked contrast to western education where educators may provide reading list of their own choosing drawn from an eclectic set of published resources. The emphasis there is about robustness of the research behind the publication and the need to have students read what might be called "classic texts" and be exposed to the cutting edge of thinking. The researcher's own experience of planning education confirms that courses are basically structured based around textbooks. These textbooks cover planning history, principles of urban planning, skills and technical knowledge of planning, and planning-related laws and regulations.

According to Prof. S., planning educator of an university in Suqian, Jiangsu, colleges and universities are free to select textbooks based on their lesson plans, however, textbooks recommended by the Ministry of Education will be selected by most colleges and universities. In other words, the majority of planning schools share the same textbooks. For instance, there are several textbooks on the basic principles of urban planning, and some schools of planning

might select the latest text as their core course teaching materials. However, the textbook *Principles of Urban Planning* edited by professors Wu and Li (2010) of Tongji University, Shanghai, has long been the textbook recommended by the Ministry of Education, and is also selected as a fundamental teaching material by most planning schools in China. The history of this textbook dates back to 1960, and to date, *Principles of Urban Planning* has become a must-read book for planning and architectural students. It is clear that texts approved by central government offer a particular view of the focus of planning and its limitations informed by the dominant political views.

Graduate students who want to become national registered urban and rural planners need to take a national examination arranged by CACP. The content of the examination is based on four textbooks set by CACP, including *Principles of Urban and Rural Planning* (National Examinations Authority for Vocational Qualification of Urban and Rural Planners, 2017).

Putting ageing-related chapters into the syllabus and textbooks will be helpful for widening the field of vision and refreshing planners' methods of addressing planning issues. An investigation of currently used planning texts revealed no chapter focused on population ageing. Only *Principles of Urban Planning* (4th edition) has several chapters that cover social aspects of the city, including a discussion of population. Despite this, there is no specific section that discusses ageing. The focus in on some basic principles of demography and mainly discusses how to consider the influence of population on urban planning, pointing out how the urban population's scale, structure and spatial distribution are closely related to urban planning. In addition, this book also introduces methods of population analysis, including censuses, analyses of structure and population predictions.

"*…if we want to integrate it with planning education, I think we need to add related chapters into our textbooks and teaching, however, I think it would be difficult to achieve the goal if population ageing didn't achieve legal status…* Principles of Urban Planning, *which we have all read previously, doesn't have a separate chapter on planning for older people, although it is a thick book. Maybe some planning books talk about the issue, but I feel it is not discussed frequently and extensively… I mean when population ageing obtains more attention… In addition, it will depend on the author's thinking.*"

(Prof. S., planning educator of an university in Suqian, Jiangsu)

This book by Tongji University has the most extensive contents[28] and also has the highest authority and recognition. Most planning and architectural students are required to read this book during their undergraduate studies. However, there is no detailed inclusion on ageing-related issues, and the current text has not been updated since 2010. By reviewing the history of the editions of this textbook, it can be seen that the period between updates is about 10 years, which is relatively long for a text that is a fundamental teaching resource. Moreover, while there were several age focused national policies published around 2000, the fourth edition published in 2010 did not include these.

Apart from these textbooks on urban planning, other counterparts, such as those on sociology and economics, also lack detailed discussions on demographic change. For instance, *Regional Economics* (3rd edition) (Wu *et al*., 2015), which is a nationally recommended textbook, makes a scant mention of the influence of population on regional economic development:

> "…Chapter 7 Environment, Population, and Regional Sustainable Development
>
> ….
>
> Section 2 Duality of population in the process of regional development
>
> 1. Labour force is the fundamental driver of social and economic development
>
> 2. A certain amount of population provides a market for consumption
>
> 3. Overpopulation's negative influences on regional development
>
> 4. Population capacity
>
> 5. Population structure and regional development
>
> 6. Migration of population and regional development…"
>
> (Extract, Contents of *Regional Economics*, 3rd edition)

By comparing the contents of these textbooks, it can be identified that population ageing is largely ignored. Some chapters refer to population, but their authors tend to think about this as

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[28] This book has 712 pages and 22 chapters.

"big data", with no consideration of life course issues, the place needs of different groups nor of the diversity among life course groups.

7.7 Summary

This chapter addressed the role of planning in response to the issues of population ageing in China, responding to the research question **how can urban planning support older people to age well?** To answer this question, the analysis included four main sections, which encompassed the political response at national and local levels (sections 7.3 and 7.4), the practices and opinions of planning professionals (section 7.5), and the role of planning education (section 7.6).

Since 2000, an increasing number of national and local policies, as well as planning documents, have been promulgated. The focus of the political response gradually shifted from care services to age-friendly environments, and in the meantime, more requirements were published in planning documents, such as accessible facilities and activity space for older people. Despite these changes, two issues have been identified. First, old neighbourhoods tend to have more older people, but polices and documents do not have clear or applicable requirements for these areas, only providing quite general principles. Second, due to China's political system, local policies must comply with national ones, but the speed of updating national planning documents is slow and an impediment to local responsiveness.

Planning professionals have paid increasing attention to and addressed the issue of ageing in their practice. However, drawing from planners' responses, several issues have been identified. The need to consider older people is not enough; there is an awareness that increasing diversity may drive diverse aspirations and demands on the city.

Planning education lacks much consideration of population ageing and the reliance on established texts with little or no mention of demographic change provides a poor basis for planners coming into practice.

Chapter 8. Discussion

8.1 Introduction

This chapter summarises the main findings from the fieldwork, and re-addresses the research questions. Then the chapter reflects on these findings to consider the position of older people in modern developing cities, the role of culture and the socio-economic context in understanding the age-friendly city, and the role of place as social arena. How the research could be further developed is discussed in relation to around three points in relation to activity places, the changing urban realms and the contribution of planning practice. The limitation of the study is also considered. Finally, the chapter discusses how the research findings might influence practice and what the limitations might be, and provides a version of the age-friendly cities checklist that can be readily applied to Chinese cities.

8.2. A summary of key findings: to re-address the research questions

This section will present key findings of this study, with a special focus on how the proposed four research questions were addressed through the analysis of collected data. More specifically, Chapter 5 provided findings to answer the first and the third research questions; Chapter 6 presented and analyzed collected data to answer the second research question; and Chapter 7 answered the fourth.

The first research question is: How do we understand active ageing in China through older people's use of outdoor space? While active ageing in many parts of the world, particularly post- industrial western economies with aged populations, has been dominated by arguments to lengthen working lives ensuring older people's economic participation, these discussions have yet to engage in China. It may be argued that with a huge population there is little economic incentive to retain or retrain older workers. The emphasis is on being active and keeping healthy. Older people rely on traditional recipes of exercise, games of chance to keep themselves alert, keeping connected to friends and being of service to their community, driven in part by strong views of collective well-being. The research therefore focused on these aspects of active ageing and the researcher presented collected data on how older people used different outdoor spaces, including those of the city centre and three case study communities, and investigated the main motivations for expressed by older people. Drawing on theories of environmental gerontology, a reflection on active ageing was conducted with a special focus on the use of outdoor spaces through the interactional links between place and older people.

Findings show that older Chinese are very fond of outdoor activities; in particular, those which allow social engagement. While there was evidence of working out and keep fit activities, cultural activities of dancing, playing music, taking part or enjoying opera were all taking place in open air spaces or open pavilions. Playing card games and chess were also outdoor activities as was talking with friends or mundane activities such as peeling vegetables. It was clear that older people took possession of outdoor space and used it fully even when space was inadequate or purposed for other uses. Where there was greater quality and quantity of space older people used the space regularly for a broad range of activities.

Places, especially those with specific facilities, could support older people to participate in activities of different kinds to meet needs at various levels. However, limited quantity and quality of space limited engagement and the lack of an effective parking policy resulted in older people losing the small spaces they could lay claim to. In some neighbourhoods, older people were almost losing their right to the city.

The second research question is: **How age friendly is the built environment in a developing Chinese city?** To answer this question, according to the WHO's age-friendly checklists the researcher first audited a range of chosen city centre and community spaces based on observations, interviews and focus groups. Based on this, the researcher discussed three dimensions of place, i.e., place aesthetics; changing place and changing people; and pride of place.

When judged against the WHO's age-friendly checklists much of this developing city's urban environment and outdoor space has been improved, though there was still scope for further improvement if an overt age-friendly approach were taken. Some aspects did not improve a lot and even became worse due to rapid growth of the city. There were some improvements in citizen behaviour that impacted on the physical environment with greater awareness of pedestrians by motorists leading to some easier mobility for older people though again there was room for greater improvement. Service attitudes to older people were variable with buses being sites for causal acts of hostility from drivers and fellow passengers. It should be noted that this is not a uniquely Chinese experience with British older people expressing the same concerns (Mackett, 2014; Green, Jones and Roberts, 2014; Barnes *et al*., 2016). Drivers training and public education might support change here in both countries. Among the three case study communities, Da-hu is more age-friendly than Rong-sheng and Tai-ping-si, In contrast, Rong-sheng and Tai-ping-si with the latter two lacking sufficient outdoor activity

places and recreational facilities. The casual incursion of cars was a common problem in the three communities, though less of an issue in Da-hu where local management appeared to be more effective.

Three dimensions of place, including place aesthetics, changing place and changing people, and pride of place, emerged as significant in interpreting age-friendly environment in the developing Chinese city. First, the beautification of place in Anqing was recognized and welcomed by local older people, but rapid economic growth increased traffic and noise that damaged place aesthetics. Second, attention and investment in outdoor spaces throughout the city had a positive impact on older people but as significant are attitudinal issues that promote or discourage older people's mobility. Third, older people, especially older community activists, tended to have a sense of pride in their communities and were committed to contributing, however, experiences of being ignored deterred others from raising their voices.

The third research question is: **How do places support older people's social connections?** To answer this question, by reviewing literature, the researcher identified two major realms of older individuals' social connections, i.e., the local community networks, and societal engagement beyond communities and considered how these were supported by city centre and in community spaces. Findings show that both locations were significant with the U3A being important in drawing people from across several communities together.

The fourth research question is: **How can urban planning support older people to age well?** To answer this question, the researcher undertook interviews with planning professionals engaged in practice, education or both as well as published sources including national policy and approved planning text books that play a key role in Chinese planning education.

Findings show that since 2000, an increasing number of national and local policies, as well as planning documents, have been promulgated, and the focus of the political response gradually shifted from a single focus on care services to include age-friendly environments. However, there was little guidance for the revitalization of old neighbourhoods.

Planning professionals have paid increasing attention to the issue of ageing in their practice and an awareness that a fixed view might lead to poor investment choices as cohorts of older people shift their aspiration potentially leaving current activity provision unused.

Planning education was seen to give student planners limited exposure to ageing issues and to largely treat any matters of population as statistical data undifferentiated by life course or diversity.

8.3 Reflection on findings: A discussion on bigger issues and academic contributions

8.3.1 *Position of older people in modern developing cities*

Participation in leisure and social activities is positively associated with the QoL of older Chinese (Chen, Hicks and While, 2013; Li *et al.*, 2016; Chen *et al.*, 2016). Findings show that older people in China have a predilection to activity using outdoor space. This study demonstrated, as did Gilroy (2012), that most of the participants get out and about nearly every day, and even several times a day. Each older person often has their own fixed timetable of activities, and implements these as a daily routine. This regime was not confined to those who we might describe as third agers but included the very old and frail people undertook low-impact activities near their homes or simply enjoyed being in the open with friends.

Thus, community space is very important to older people's participation in outdoor activities, and observation data also reveals that a bigger range of spaces stimulates a broader range of activities in communities. However, a number of neighbourhoods have very limited outdoor spaces. Lack of purposed space did not deter older people who colonised roadsides and the steps of an underground shopping mall, which is evidence of older people's need to be out doors.

Despite this, the city government does not prioritise this issue. Instead, local action plans focus on constructing a care service system. Clearly, the government aims to provide better services for older people, however priorities are driven by availability of finance and the World Bank loan has focused attention on medical and welfare issues.

For a developing city like Anqing, indeed in any city in China, economic growth is its first goal, which calls into question how significant older people's needs particularly those that require investment may be. Children can be viewed as potential economic actors but older people are spent. China is far from recognising that older people's needs may be an engine for the economy through their needs for aids, adaptations or diverse digital gadgetry. In the UK.

and elsewhere the concept of the longevity economy is being established but this has yet to be seen in China but may through the growth of the middle class (Coughlin, 2017).

However, older people in all countries continue to be a vital resource to their families and communities thus providing an in kind economic contribution (WHO, 2002). Active older people can be a resource in society acting as volunteers and supporting their neighbours on street committees; also, healthy older people may well be child carers, allowing other family members to be economic actors. The Da-hu service team and the Rong-sheng dance team work as volunteers to contribute to their communities, and older people were frequently observed to look after their grandchildren when they were undertaking outdoor activities. A report issued by the ONS (2017) shows that in the UK, unpaid social care would cost the country £57 billion if society had to pay wages for it, and most of the work was done by older people. This calculation is not available for China; however it does provide counter-evidence to the idea that only paid work is of economic importance to the country.

However, older people tend to "feel largely excluded from the ambitious plans produced by cities competing in the global marketplace" (Buffel *et al.*, 2012, p.601). Almost all developing Chinese cities are "in a perpetual churn of demolition and new build", resulting in old neighbourhoods' decay (Gilroy, 2013, p.432). The current transformation project in Anqing has brought positive to the built environment and increased the city's age-friendliness even though the focus was to win the title "National Civilised City", and be rewarded with an increased annual financial allowance from the central government each year.

Older people's rights to the city and to age well in their places are being eroded as they are forced to give way to the development of the city. The pedestrian street is used all year round by older people for various activities; however, the city government has made what was a pedestrian only street accessible to vehicles in order to ease traffic jams on surrounding roads and attract more customers who prefer to travel by electrical bikes. Older people are facing more challenges from the growing affluence of the city. Increased car ownership and poor planning attention to parking causes former activity spaces to be occupied by cars; shifting attitudes and what might be described as greater individualism leads to demonstrations of disrespect to older people from other citizens and service providers, while a failure to adequately manage the streetscape makes the public realm more difficult and less pleasant to use.

When facing all these challenges, WHO contends that older people should be experts in their own lives (WHO, 2007), and they are also encouraged to be more active in civic participation (Scharf, McDonald and Atkins, 2016). China also has published a specific law for the protection of older people's rights. However, Western practices of developing age-friendly cities show that older people's organisations' and associations' participation encounter significant limits in the process of promoting age-friendly environments (Garon *et al.*, 2014). The role of upstream leadership (Garon *et al.*, 2014) and local authorities (Buffel *et al.*, 2014a) is critical in coordinating efforts and fostering collaborative partnerships between stakeholders.

Compared with previous cohorts, today's older Chinese have greater opportunities of a higher level of civic engagement (Chen and Adamek, 2017), which may be reflected in older people's participation in community volunteering work; for instance, the case of the Da-hu Community service team. However, China's civil society is under pressure (Yuen, 2015), and older people have limited and unequal civic participation (Chen and Adamek, 2017). Participants in the research were often dismissive of the idea that they might be able to shape local decisions. If planners and place makers are to develop an age friendly place being able to understand older lives through community conversations might be a logical step forward.

Older people's QoL tends to be more dependent on community-based resources (Yen *et al.*, 2009; Bowling and Stenner, 2011; Mõttus *et al.*, 2012) and even deprived communities also contain resources, such as neighbours and services (Scharf *et al.*, 2002; 2003). In China, community workers – in particular, the community leaders – are an important social resource that is relatively easily accessed by local older people. Although these leaders may be less powerful in addressing material issues, they can look for more opportunities for older people's social engagement by using networks in both government and society.

But, nonetheless, some community workers take a passive attitude in addressing older people's needs and providing services for them, while planners' understanding of and performance in age-friendly place-making could be further improved through more specific training and education. There are clear resource issues. This lowest level of government is expected to take a great deal of responsibility for the well being of older people but is not necessarily resourced for this (Wu *et al.*, 2006).

To sum up, this research has identified that in the context of a developing city, older people's rights to age well in place are at risk of being undermined by a focus on economic

development. Older people's power to influence is limited but could be enhanced by a better resourced community level and shifts in the practice of urban planners.

8.3.2 *Role of culture and socio-economic context in understanding the age-friendly city*

WHO (2010) points out that social engagement and physical activity among older people is higher in developed countries compared with developing and poor countries, and scholars argue that this may be due to cultural differences (Crewdson, 2016) as well as cities' and social infrastructures (Bernard, 2013). In short, when determining types of age-friendly initiatives it is important to take into account the socio-economic and cultural influences on local populations (Steels, 2015).

Apart from addressing older people's needs, these places have other special significances. First, these places for cultural activities shape a unique image or identity of this city. People can display their identity – for example, culture – through reference to place (Reed *et al.*, 1998; Cutchin, 2005). In this sense, places offer a sense of belonging and meaning, which evokes an appreciation of cultural and environmental diversity (Ryan, 1995, p.7); a lack of links to local culture will lead to "placelessness" (Relph, 1976). In other words, older people develop stronger attachments to these places or to the city by engaging in cultural activities as well as by performing the lifestyle that they feel is appropriate and satisfying.

Second, activity places offer more opportunities to protect traditional cultures in the context of the rapid modernisation of Chinese society. When the country opened up to the West in economic terms in the late 1970s, an influx of other influences also arrived: Western consumer culture and products, such as McDonald's and the iPhone, have become increasingly popular in this country, and in the meantime, with greater affluence, more Chinese people – of course, including many older Chinese – can purchase modern products and services, thereby changing their old lifestyles. Currently, the rising coffee culture in China is a good example of this point (Ferreira and Ferreira, 2018) that is in opposition to the traditional tea drinking and the often elaborate ceremonies around tea drinking. In other words, traditional cultures may be in danger of being lost due to the modernisation of society and economic development. One of the issues facing developing cities is how to maintain local traditional cultures. Outdoor spaces not only encourage older people's engagement in these cultural activities but also attract attention from younger generations though this may be

hostile as seen in earlier discussion. It may be stated that there is a role of public education in reasserting the value of traditional cultures- what makes China different and special- however it must also be acknowledged that culture is not fixed- nor can societies stand still. Some level of erosion is to be expected: the issue is to what extent does Chinese society succumb to western lifestyles and consumer led leisure or seek to blend the traditional and the modern arena.

The socio-economic context is clearly important when thinking of what an age-friendly city should look like. Increasing wealth (for some) has raised expectations of what retirement might be and services and facilities need to be mindful that provision that satisfied older people in the past may be seen as far from adequate by new cohorts particularly where older people might describe themselves as middle class. The China's rapidly developing economy has delivered significant improvements in Chinese living conditions for many households including those of older people which together with higher incomes and better diet and healthcare has provided an opportunity for older people to consider issues of personal development (Meyer and Uys, 2006; Maslow, 1954). Increased longevity has increased the length of retirement opening up this to the possibility of learning new skills away from a time solely for leisure (Kalache, 2013). As a response to these shifts, policies are now paying increasing attention to developing an age-friendly environment to facilitate older people's social engagement.

The history of the U3A of Anqing confirms the influence of these changes. When it was founded in the mid-1980s, the number of students was less than 100 and only three courses were offered, but currently it has over 1,000 students and 15 courses (Ke, 2017). The response of older people clearly demonstrates that participation in learning and skill development is beneficial but the benefits are thinly spread. Greater investment is needed in these facilities.

A common set of indicators of age-friendly cities that are "both applicable and adaptable to a range of country contexts does not yet exist" (Steels, 2015, p.51). This research finds that a collectivist culture and attachment to traditional arts have significant implications for older people's activities and their place attachment; moreover, places can also play an important role in protecting traditional cultures. Thus, first, based on different activity patterns, sufficient and reasonably designed places should be provided as a spatial support for cultural activities; second, society needs to understand the meaning of these activities based on a deeper appreciation of cultures, thereby forming a spiritual support for older people's social

engagement. In addition, it has also been identified that shifts in longevity, affluence and expectation significantly influence age-friendly identities in a developing country, which highlights that more thought needs to be given to older people as a heterogeneous rather than a homogeneous group developing against a fast changing context.

8.3.3 *Role of place as social arena*

According to UN-Habitat (2010), older people remain among the most excluded of those living in urban communities. Social exclusion in later life is complex in nature, with transitions and major life events, such as widowhood, the adjustment to living alone and the loss of family members and close friends, playing a key role (Scharf, Phillipson and Smith, 2005). In the past, largely because of the traditional concept of filial piety, most older Chinese used to live in extended families; thus, the support from other family members played a major role in keeping them included, and feeling of societal value as family members with roles to play (Peng, Mao and Lai, 2015). However, they may now be facing more challenges: intergenerational support from family members is weakening due to shifts in socio-economic conditions (Zavoretti, 2006; Liu *et al.*, 2017). As a consequence, in the contemporary Chinese context, however, loneliness is becoming a big issue among older people who are living alone (Tong *et al.*, 2011).

In these circumstances, where traditional forms of support through the family are less available, older people may look for help or support from their larger social networks. Apart from material support, older people may also receive feedback from others showing they are valued, esteemed, loved, cared for, and part of a group of mutual obligation and communication (Kim *et al.*, 2008). It is easy to understand that there is a positive relationship between older people's well-being and the strength of their social networks (Okun *et al.*, 1984; Helliwell and Putnam, 2004; Diener *et al.*, 2003).

In this research, keeping socially connected has been identified as one main driver for older people to engage in outdoor activities. All places can also serve as arenas for social intercourse. The observation data shows that the locations of older people's activity places tend to remain unchanged, and this result reveals a particular phenomenon: older people tend to select a place with which they are familiar as their social arena. When people become familiar with one space, then the space has become place to them (Tuan, 1977). Therefore, communities are often older people's preferred social arenas, for older people become more

and more concerned with the immediate environmental context due to their limited mobility and mindful of their friends limited mobility choosing spaces that are comfortably within reach of all (Rowles, 1978).

Nevertheless, for older people who have weak community connections or seek wider social networks, places beyond their communities, for instance, city centre spaces, might be better social arenas. Therefore, mobility, which is a critical element of one's QoL (Spinney *et al.*, 2009), determines older people's socialization. In this sense, an age-friendly urban environment should be able to increase their mobility by promoting accessibility, thereby thereby facilitating outdoor activities, delivering greater well-being and enhancing their socialization (Scheidt and Windley, 2006; Liddle *et al.*, 2014). A series of elements of the city can contribute to promoting older people's mobility, such as transportation system (Plouffe and Kalache, 2010), safer pedestrian crossings (Buffel, Handler and Phillipson, 2018), and pavements (Lavery *et al.*, 1996; Loo *et al.*, 2017), in other words, the city should improve older people's accessibility to these facilities.

8.4 Recommendations for further research

During the fieldwork, the researcher identified several interesting findings, however, due to the limitation of time, this thesis was unable to explore all of them in depth.

First, observation identified that some places that were expected to be "wonderful" sites for outdoor activities attracted very few older people. Working with older people to co-research these places would be interesting to determine how they fail to meet expectations; what solutions older people might have for improvement and as a method to demonstrate the value of working with older people rather than asking them to comment on decisions that are largely made elsewhere.

Second, in the context of a fast developing city, a more longitudinal piece of work looking at how places have been transformed for the good or otherwise and their impact on older lives. Such a study could use photographs to record and compare and use these as discussion prompts with planners and older people.

Thirdly, planning practice has been highlighted as playing a critical role in making better places for older people as well as creating opportunities for their voice to be heard in

meaningful ways. This is worthy of deeper exploration not only in Anqing but in other Chinese cities.

8.5 Limitation of this study

A limitation of this research has been identified that it engaged with those who were visible and involved, and the main findings of this research were based on interviews with and observation of older people who were basically healthy enough to be out and about, lacking data from frailer or disabled older people. A criticism of many of the currently held theories argue that the age-friendly city concept focuses on the healthy and active older person: what is often called the active third ager to the exclusion of those who are frailer. The concept of active ageing has itself being criticised as seen in Chapter 2 and creating a new excluded group of older people whose physical and cognitive capacities are declining. Therefore, a more all-encompassing and realistic concept of an age-friendly city needs perhaps to be unpicked from these confining definitions of active ageing to embrace all older lives (Bowling, 2008). WHO (2007, p.1) points out that an age-friendly city's structures and services should be accessible to and inclusive of older people with varying needs and capacities.

Based on these considerations, future research may need to take a wider perspective and pay more attention to frailer older people. Researchers need to investigate their living conditions, reflecting on what an age-friendly city should look like based on these fast growing groups' needs and opinions, and further, think critically about what changes need to be made to the existing age-friendly cities checklist. Compared with the current study, this future research will need to use more the in-depth interviews to reach those not seen in the street.

8.6 Implications for practice

Chapter 5 and Chapter 6 identified a series of issues in relation to older people's use of outdoor spaces and the extent to which Anqing is age-friendly. Findings about the demand for activity space, for learning space and the threat posed by increasing automobile usage should be considered when planning construction and regeneration as well as the ongoing management of places. The research also identified attitudinal issues and evidence of changing levels of respect for older people and their traditional pastimes. There are clearly

possibilities in driver training for the bus fleet but it must be acknowledged that cultures and values are changing in China and cannot be legislated against. In the WHO guidelines as the expectation that older people will have voice in determining places and it may be that a more vocal older population is able to recommend respect by articulating their needs and how meeting them is of value to society as a whole. An active and healthy population draws less on health and welfare systems; can take on community and volunteering roles for the benefit of all; are less worrying their families allowing these economic actors to take a greater work and child rearing focus.

To offer a solution to the overarching issue raised in the thesis, i.e., how to support older people to age well through planning and the urban built environment, drawing upon previous findings, versions of three checklists of age-friendly cities that are more fitting to Chinese cities are presented as follows, providing suggestions on how to help older people to age well in place in three aspects: their support system, their activity places and the role of planning.

Chinese version of the age-friendly cities checklist:
A guide to the support system, activity place and planning role

Age-friendly support system checklist

Chapter 6 presents the age-friendliness of Anqing's outdoor spaces, public buildings and transportation. These spatial elements constitute an important support system for older people's active ageing and support cultures of being and everyday life.

(1) Dogs to be under control, and pet owners to clean up after their dogs. The government should impose fines on irresponsible dog owners and put sufficient bins where owners can put bagged animal waste.

(2) More seats that are comfortable are to be provided where older people frequent. Attention should be paid to light and shade to ensure maximum comfort.

(3) Separation of vehicles and pedestrians with car parking clearly marked and enforced.

(4) Pedestrian crossings should have audio cues and non-slip markings. Action should be taken to enhance drivers' awareness about giving way to older people monitored by surveillance camera.

(5) Cycle lanes to be clear of cars.

(6) Revitalization of old public buildings to include measures to ensure full accessibility.

(7) All outdoor public toilets are to have ramps designed to international best practice standards to allow dignified use by a disabled person.

(8) Bus services to be extended to allow evening travel and to cover newly constructed suburban areas. This would also speak to climate change issues taking cars off the road.

(9) Priority seats on buses for older people to be protected and buses redesigned to consider older people's mobility.

(10) More information for the travelling public at bus stops and attention to seats.

Age-friendly activity place checklist

Chapter 5 focuses on older people's experiences of using outdoor spaces, trying to explore the relationship between later life and places. Issues in relation to places in supporting older people's activities have been identified. Drawing upon these findings, a checklist of action points to deliver a more age-friendly activity place is presented as follows.

(1) Sufficient activity places should be created in city centre areas and communities; with attention paid to old neighbourhoods.

(2) Investing in learning facilities.

(3) Attention needs to be made to ensuring adequate repair and maintenance of community facilities and amenities.

(4) Older people's needs to pursue an active and better later life are to be respected; community leaders should support older people by providing help and arranging activities or events to enhance their social participation.

(5) Older people's ability to contribute to local communities is to be recognised and their volunteer work supported.

In Chapter 7, gaps have been highlighted in the current Chinese planning system after examining relevant national and local policies, planners' practices and planning education from the perspective of age-friendly cities. To fill in these gaps, a checklist of suggestions is raised as follows.

(1) Policies should put promoting age friendliness in their plans.

(2) Changes should be considered to planning practices to support greater involvement with older people to ensure that policies intended to support ageing well are targeted and appropriate.

(3) Planning officers should regularly undertake post occupancy evaluation with older people to ensure that facilities are meeting needs.

(4) Activity places should be integrated with green spaces and seating.

(5) Planning education should raise planners' awareness of ageing and the spatial demands of an ageing society.

8.7 Key political issues addressed in this research

Older people should play a critical role in developing age-friendly cities and communities (WHO, 2007). The Planning Law of China highlights public participation in the planning process, and this research also identified older people's ability to contribute to their communities.

However, there was no specific requirement for older people's participation in planning policy, and older people's voice was not fully heard, especially during the process of community renovations. In these old communities, older people account for the majority of local residents, thus, planning process should involve older people as main stakeholders. But, their needs and opinions were ignored frequently. Hence, more specific statements need to be added to related policies to further stress older people's participation and specify the number or proportion and composition of older people who are consulted by planners. Here, the researcher suggests that consulted older people should include community activists as well as other older people of diverse characteristics, such as gender, age and interest group.

Furthermore, although there were some pro age measures conducted in the improvement projects, it was still unclear that to what extent these actions could meet older people's needs.

Therefore, the policy makers need to produce a mechanism of post occupancy evaluation in order to ensure older people can have good access to their places and facilities. For doing this, the policy should set the frequency and participants of the evaluation. This research proposes that planning officers might host the evaluation regularly, and older people should be involved in the process.

Currently, as existing policy requires, more planners become aware of the importance of collecting opinions of older people. However, there is also a need to make a step change in policy in order to encourage planners to proactively engage with communities and different life course groups to understand how places work and see residents as place makers alongside planners. The reasons for making this change include two points: first, frequent observations in outdoor spaces and communications with local older people in different neighbourhoods will deepen planners' understanding of how places support active ageing in communities of diverse characteristics, such as middle class and working class communities. This will help planners to develop knowledge of producing plans based on socio-economic conditions of communities. Second, this change in policy will promote planners' awareness of older people's role in place making, which is of special significance in such context of fast developing China for older people's needs for outdoor spaces might change with socio-economic development.

Nevertheless, if integrating a higher level of older people's participation into the planning framework and urban policy, may cause tensions between the needs of older people who are less active economically and the city's ambition for fast development. In planning framework, older people could have their voice heard more easily during the process of producing plans for community renovations, but they become much less powerful in shaping plans at higher levels, such as the master plans that rely more heavily on the strategic decision making of higher level professionals. In the process of urban policy in a developing city, older people's participation might be challenged by other stakeholders, for instance, commercial developers. Furthermore, to make this change might also cause political ramifications in China, because enhancing older people's civic participation would demand a greater level of openness. In the Chinese political environment that puts political stability in the first place this does not necessarily create conditions for an opening out to civil society.

8.8 Summary

This chapter first re-addressed the four research questions, and drawing upon the key findings uncovered that older people's needs for outdoor activity places are often ignored, and their rights to the city face challenges from the city's economic development and cultural shifts. Second, the cultures of everyday life are deeply connected to collectivism with older people seeking diverse opportunities to be socially connected. Shifts in socio-economic conditions, longevity and frailty all need to be considered when planning for older people's places. Third, place often plays the role of a social arena that is a means of reducing the risk of loneliness and isolation.

Three aspects could be taken forward to develop the current research in the future: co-research with older people to reimagine facilities; a longitudinal study charting development and its pro age or adverse age impacts; measuring the change is within planning practice and the impact on both physical spaces and consultation practice. A major limitation of this study is the lack of consideration of frailer or disabled older people, thus, future research need to take a wider perspective.

This research could have implications for practice, including guiding urban construction and regeneration, offering suggestions for promoting city and community management, and improving social environmental aspects, providing advices for making planning system more age-friendly.

Chapter 9. Conclusion

This study explored specific dimensions of the age-friendly city checklist as set out by WHO, namely outdoor space and mobility and how these supported well-being and older people's social inclusion and participation. The study took place in a third tier Chinese city that, typical of many others in this large and growing group, is jockeying for position eager to attract inward investment, to gain investment and prestige from central government with the aim of developing itself as a significant economic centre able to retain its younger people and increase prosperity for its citizens. In these plans the needs of non-economic actors, particularly older people, are often unseen. There was evidence of greater recognition by planners that has come largely from experience rather than encouragement from planning education. There are obvious positive changes in the lives of older people but these have happened by default rather than design. With such a large ageing population and shifting familial and cultural context there is an obvious case to be made for the city itself to be seen as an area for older people's well-being that facilitates older people to live the life they choose with small investment from government outweighed by considerable societal benefit. Drawing upon the main findings, three major contributions have been identified.

First, this research deepened the understanding of the relationship between place and active ageing. Place could support older people's needs at various levels, such as physical fitness and socialization, through providing spaces of different locations and characteristics. Older people, especially community activists, could play a positive role in pursuing a better place for age, but their performance might be limited because of social and political environment.

Second, this research investigated age-friendly places in a developing urban context, identifying that a lot of aspects of physical environment were improved, but some became even worse because of the fast growth of the city. In terms of social environment, the performance of the implementation of city managements had significant impacts on improving the public attitudes towards older people, and in addition, ordinary older people's positive attitudes and community participation were also important in creating an age-friendly city.

Third, this research identified and analysed issues in relation to planning policies, planners' practice and planning education. More specifically, urban planning in China needs more action to become a more age-friendly planning system, in which old neighbourhoods need more specific action plans, and documents need to be updated more frequently to fit changes in local situations and needs. Planners need to have more knowledge of older people's diverse

activity patterns and needs, and require the skills to create reasonable outdoor and indoor spaces for older people. Extensive consideration of population ageing and deep thought about older people's daily lives need to be integrated into planning education.

Future research might need to reflect on the active ageing in a fast-changing Chinese urban context. The thinking on this issue could further take a focus on two realms: tangible and intangible environments. The tangible environment will be changed by construction and regeneration projects, which often bring positive improvement in the urban physical environment, but to what extent these changes promote local older people's active ageing needs more exploration. With regard to the intangible realms, featured by social environment, will also change mainly due to the country's continuous reforms in economic system and opening up to western world. Thus, it would be reasonable to anticipate that these changes could have impacts on Chinese people's attitude towards to later lives, life styles of older people, as well as culture. In short, all these factors could influence the conditions of active ageing in urban China.

Appendix A

Interview guide for Da-hu, Rong-sheng and Tai-ping-si Communities

Step 1: A brief introduction to the researcher and the aim of the study. And then present the participant the purpose of this interview: getting data on the participant's use of outdoor space and the role of place in supporting his or her social connections.

Step 2: Some simple questions about the participant's age and household composition.

Step 3: Ask a series of questions as follows:

(1). Can I ask you how often you get out of the house?

(2). In a typical week where do you go? And how do you get there?

(3). Can you get to the places you want to go to?

(4). What is you most usual way of getting about?

(5).What is your preferred way of getting about?

(6). Do you use the local open spaces?

(7). Can you tell me about what you do there?

(8). What is your favourite place in this neighbourhood?

(9). What are your purposes of doing outdoor activities?

(10). What do you get from engaging in activities in outdoor space?

(11). When you are doing activities outdoors, do you meet other people?

(12). What social benefits do you get from these activities?

Appendix B

Focus group guide for Da-hu, Rong-sheng and Tai-ping-si Communities

Step 1: A brief introduction to the researcher and the aim of the study. And then present the participant the purpose of this focus group: getting data on the participants' experience in their communities, with a special focus on good aspects or issues in their communities and the city, as well as their perceptions on what age-friendly environment should be like.

Step 2: Some simple questions about each participant's family name and age.

Step 3: Ask a series of questions as follows:

(1). What do you think is important to make a good life for an older people?

(2). What is life like in your neighbourhood?

(3). What places do you use most often?

(4). What are the good aspects about these places or your community?

(5). What places or aspects of your neighbourhood are not as good as you expect?

(6). How could places be improved?

(7). From the perspective of older people, what aspects of the city need to be improved?

Appendix C

Interview or focus group guide for planning professionals

Step 1: A brief introduction to the researcher and the aim of the study. And then present the participant professionals the purpose of this interview: getting data on their work experience in relation to ageing issues and their points of view about related issues identified from the field work.

Step 2: Present some major preliminary findings of the field work as well as emerged issues, particularly those proposed by older people.

Step 3:

For urban planners, ask a series of questions as follows:

(1). Drawing on the preliminary findings of the fieldwork, which findings do you think could be implemented in urban planning most likely? Why?

(2). What do you feel are the obstacles to implementation?

(3). What important factors will you take into account in your practice of urban planning?

(3). Did you take into account population ageing when setting out local development policies and plans before?

For planning educators, ask a set of questions as follows:

(1). To what extent do you address ageing issues in the education of planners?

(2). Can you talk about how you might integrate ageing-related topics into planning education in the future?

Appendix D

Interview or focus group guide questions for the U3A

Step 1: A brief introduction to the researcher and the aim of the study. And then present the participant the purpose of this interview: acquiring data on the participant's perceptions on outdoor spaces of the city and their communities, with a special focus on their experience of studying in the U3A.

Step 2: some simple questions about family name, age, community of residence and household composition.

Step 3: Ask a series of questions as follows:

(1). What do you think is important to make a good life for an older people?

(2). What places or aspects of your neighbourhood are not as good as you expect?

(3). Does attending classes of the U3A have impact on your life? Can you talk more about the impact?

(4). How is the environment of the U3A? What aspects of the U3A need to be improved?

(5). After Anqing won the title of the "National Civilized City", do you think there are any changes in the city? If there are, are you satisfied with these changes?

(6). From the perspective of older people, what aspects of the city need to be improved?

Appendix E

Focus group guide at karaoke of a shopping mall

Step 1: A brief introduction to the researcher and the aim of the study. And then present the participant the purpose of this interview: getting data on the participant's lived experience in the city and their communities, as well as perceptions on changes of urban environment.

Step 2: Some simple questions about each participant's family name, age, community of residence and household composition.

Step 3: Ask a set of questions as follows:

(1). What aspects do you pay more attention to in your life?

(2). What do you do in you spare time?

(3). Where do you go often to do these activities?

(4). What aspects are you unsatisfied with in your neighbourhoods?

(5). After Anqing won the title of the "National Civilized City", do you think there are any changes in the city? If there are, are you satisfied with these changes?

(6). From the perspective of older people, what aspects of the city need to be improved?

Appendix F

Information on the research (English)

This research investigates how urban outdoor spaces can support older people to age well. This is for writing thesis of the researcher for getting PhD at Newcastle University, UK. The case study area is in urban region of Anqing. The purpose of this fieldwork, including interviews and focus groups with older people, is to collect data of participants' daily activity patterns, life experience in relation to their activities and urban built environment, such as communities and urban public spaces, as well as their opinions about unsatisfactory aspects of these places and how should them to be improved in the future.

This research has been approved by the School of Architecture, Planning and Landscape, Newcastle University, UK. In addition, before conducting the fieldwork, the University Ethics Committee has considered the researcher's ethical approval form for the project, and has granted its approval for this project to progress.

During interviews and focus groups, the researcher will only raise questions or topics that are only related to the research purpose. The research will not force any participants to give answer or response to any question or topic. But the researcher really appreciate participants if they could talk more over these questions or topics that are of their interests.

The researcher will strictly protect participants' privacy and will not use their research data for other purposes apart from academic research. The researcher's contact information is listed as follows:

Name: Qiaowei Yang

Address: School of Architecture, Planning and Landscape, Newcastle University, NE1 7RU, UK.

Email: q.yang9@ncl.ac.uk

If participants need to contact the researcher's supervisors or the school, they are welcomed to contact the following university staff by email:

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Information on the research (Chinese version)

研究课题介绍

本研究主要调研关于城市户外空间如何支持老年人更好的老年生活。这是为了研究者在英国纽卡斯尔大学获得博士学位而撰写学位论文所用。案例研究区域是在安庆市市区。实地调研的目的，包括与老年人的访谈和小组讨论，是为了收集参与者的日常活动模式，与活动和城市空间环境相关的生活经历，包括社区和城市公共空间，以及他们对于这些场所不满意的地方和应如何改进的意见。

本研究课题已获得纽卡斯尔大学建筑规划和景观学院的同意，同时，在开展实地调研之前，大学学术道德委员会已审阅了研究者提交的学术道德审查报告，并批准调研如期展开。

在调研期间的访谈和小组讨论，研究者仅会提出切合研究目的的问题和话题。研究者不会强迫任何参与者回答或对任何问题和话题给出回应。但研究者将会十分感激参与者能就他们感兴趣的问题或话题分享更多的经历和意见。

研究者将严格保护参与者的隐私，所收集的数据资料将不会用于除学术研究之外的任何其他用途。研究者的联系信息如下：

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如果参与人想要联系研究者的导师或其所在学院，欢迎通过电子邮件联系下列学院负责人士：

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Appendix G

Consent form (English)

Title of Study:

Exploring active ageing outdoors: A case study of Anqing, China

Thank you for your interest in taking part in this research. Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research study. You will be given a copy of this Consent Form.

	Please initial box to confirm consent	
1	I confirm that I have read the information sheet for the above study, I have had the opportunity to consider the information, ask questions and I have had any questions answered satisfactorily.	
2	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I understand that if I decide to withdraw, any data that I have provided up to that point will be omitted.	
3	I consent to the processing of my personal information for the purposes of this research study, as described in the information sheet.	
4	I consent to my research data being stored and used by others for future research.	
5	I understand that my research data may be published as a report.	
6	I consent to being audio recorded and understand that the recordings will be used for research purposes only. I understand that being audio recorded is optional and therefore not necessary for my participation in this research.	
7	I agree to take part in this research project.	
	Participant _____ _____ _____ *Name of participant* *Signature* *Date* *Researcher* _____ _____ _____ *Name of researcher* *Signature* *Date*	

Consent form (Chinese version)

授权同意书

研究课题:

从户外空间角度探讨积极老龄化: 基于安庆市的案例研究

感谢您参与这项研究。请在阅读完研究课题的内容介绍后填写如下同意书表格, 并请惠存。

	请打勾完成此表格	
1	我已阅读完研究课题的介绍, 并已充分了解到该研究课题的有关信息, 有疑问的地方我已提出并获得了满意的答复。	
2	我理解我是自愿参与该研究, 同时我可以随时退出并不需提供任何理由。我知道一旦退出, 我之前提供的任何数据信息都将删除。	
3	我同意我的个人信息用于研究课题介绍中说明的研究目的。	
4	我同意我的研究数据被保存并可以用于将来的研究。	
5	我知道我的研究数据可能将被发表成研究报告。	
6	我同意接受语音记录并知道这些记录将被仅仅用于研究目的。我理解语音记录是可选择的, 因此如何我不愿意被录音, 我将会告知研究者。	
7	我同意参与此项调查研究项目。	
	参与人 _____ _____ _____ 姓名 签名 日期	
	研究者 _____ _____ _____ 姓名 签名 日期	

Appendix H

Scale of age-friendliness of outdoor spaces

Characteristics	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
Environment: clean and pleasant	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Green spaces: sufficient and well-maintained	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Outdoor seating: sufficient and well-maintained	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Pavement: well-maintained and free of obstructions	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Outdoor safety: good lighting and security measures	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Car parking: cars parked in correct places	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Bus stops: sufficient number of bus stops near community	**7**	**6**	**5**	**4**	**3**	**2**	**1**

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