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学 位 論 文 内 容 の 要 旨

博士の専攻分野の名称　博士（工学）　氏名　李 翥彬

学 位 論 文 題 名

A Study on the Tenants ’ Usage and the Design Guidelines for Public Housing in China
(中国における公営住宅の住まい方とデザインガイドラインに関する研究)

Chinese housing system differs from the majority of the western countries, features a totally welfare distribution system after the foundation of new China in 1949. After an economic reform, in which housing reform was an integral proportion, housing was transformed from a kind of social welfare to a commodity. Real estate developers begun to obtain the usage right of a certain lot through auction carried out by government, constructed commodity housing on it and sold them to common consumers. Meanwhile, public housing system was rebuilt, which was composed of two public housing types, known as affordable housing and low-rent housing target middle and low income populations respectively. Public housing related issues were always popular research topics since the open door policy was implemented in 1978. However, most previous researches take how to amend the system to meet the changing situation as the focus. Public housing design research, in which the physical space is the research subject, was ignored to a certain extent. Although great metropolises, such as Beijing and Shanghai, had developed their guidelines for public housing design, the guidelines were generally based on the current related national codes concerning building design. The actual needs and demands of inhabitants were neglected and had not been carefully explored. To fill the gap between design and residents ’ actual needs, this study focuses on the satisfaction level of current public housing residents and their room usage, aims to draw up a guideline for future public housing design. In view of the special needs on environment of the elderly and disabled, universal design concept is employed as the conceptual basis of the discussion. All data used in this research was obtained from two surveys on six public housing projects in Shenyang.

Chapter one is a general introduction about the research. The background, questions and purpose of the research are clarified. Through a critical review about previous studies, it is clear that public housing design in China hasn ’ t given enough care on the actual needs of residents. The elderly and disabled are excluded from the target users. Public housing design in China lags behind most developed countries and pressingly needs improvement.

Chapter two involves a review of China ’ s housing reform and a specification of the three public housing types. The according issues arose during the development of Chinese public housing are discussed in detail. As a result, it is predictable that the public housing type for renting would be the key component of future public housing provision. The public housing system and its new development tendency in Japan are presented in this chapter as a comparative case. The analyses indicate that the public housing provision is still far inadequate in the studied city, Shenyang.

Chapter three mainly explores the residents ’ satisfaction about the housing unit and building features. Data used for the analyses is obtained by questionnaire survey and face-to-face interview with

the residents, which were carried out twice in 2011 and 2012. The findings reveal that the elderly and disabled in public housing were apt to assess their housing unit worse, compared to other respondents. Residents in different public housing types expressed varied concerns on housing unit features.

Chapter four focuses on residents ' actual needs for a better living environment from the perspective of housing unit typologies. The common characteristics of room usage are concluded. Then, the room usage of two surveyed low-rent housing projects is discussed in detail. The main findings of this chapter could be summarized as follows: (i) the variety of household type caused different room usage; (ii) living room is considered more important than other rooms and is used in many ways to fulfilled various demands; (iii) basic flexibility over the floor plan should be provided to avoid additional room modification.

Chapter five is a close look at the living room usage, which is documented a primary space according to the above two chapters. The descriptive analyses indicate that living room in public housing unit is serving various functions both in affordable housing and low-rent housing. Sleeping and studying, the actions which are usually performed in different room are taken at living room. This increases the complexity in the living room and supports the findings of the previous chapters in part.

Chapter six contains a guideline for Chinese public housing, developed based on the Chinese national codes on building design, universal design concept and guidelines for public housing in japan. This guideline mainly focuses on interior spaces; aims to eliminate the obstacles in each space to achieve a universal environment to the greatest extent possible. Following the guideline, two model units are designed to specify how these concepts could be transformed into design.

Chapter seven is a summary of this thesis. The main findings of the whole study and the expected future works are indicated in this section. According to the preceding discussions, this thesis could be summarized as follows:

a. The residents 'satisfaction about housing unit features is firstly investigated in China and explored in this study. The information is of crucial importance for policy making and building design practice. The results indicate that living room is the feature which has high impact on their satisfaction and should be given more concerns accordingly. It also reveals other key issues which need to be addressed in future and direct the guideline drawing up towards a right direction.

b. Using the floor plan data obtained from the surveys, the housing units are classified into different groups. The room usage in each group of housing unit is studied respectively. By doing this, their actual needs for more usable interiors are concluded as an integral part of this research. It becomes clear that both the household composition and the housing unit type will affect the room usage pattern. More responsive strategies are expected to be employed.

c. Based on the Chinese national codes, universal design concepts and the findings of this study, a universal design guideline for public housing design is developed. A set of strategies designed to improve the accessibility and usability of the housing unit could be found in this guideline. This guideline could be widely used not only in Shenyang city. Other Chinese cities could also refer to this guideline and amend their own related regulations or design guidelines.