

A Preliminary Study on the Renewal Experience of Japan's Old Communities from the Perspective of Aging — Take the Japanese Hanada Community as an example

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Abstract

This paper takes Hanada community in Japan as a case study to discuss the experience and enlightenment of how to renew the old community from the perspective of adaptation to the elderly. The research shows that the renewal of old communities should start from housing, transportation, medical care, welfare and other aspects to improve the quality of life of elderly residents. In the renewal practice of Huatian Community, community residents actively participate in community planning and decision-making, the government and social groups provide necessary support and services for the community, and also adopt advanced scientific and technological means, such as intelligent facilities, to improve the functionality and comfort of the community. In addition, the study also put forward a number of recommendations, such as focusing on the accessibility and mutual assistance of the community, and strengthening the connection with the surrounding communities, so as to promote the renewal and sustainable development of the old community. In summary, this study provides useful experience and enlightenment for the renewal of age-appropriate communities.

Keywords

Ageing, Community renewal, Japanese Hanada Community.

At present, the aging of China's urban population is becoming more and more serious, which is not only a concern in the fields of social welfare and medical health, but also has triggered extensive discussions in the fields of politics, economy, culture and human settlements [1-5]. Compared with developed countries (such as Europe, the United States, Japan, and South Korea), which are entering the late stage of urbanization in an aging society, China is still in the stage of semi-urbanization development [6], and the aging rate is increasing year by year.

At present, a large number of old communities in China are facing problems such as high housing vacancy rate, shortage of land resources, and deterioration of living environment. With the shift to connotative development in cities, the benefits of using existing space resources are an important topic at present [7]. The renovation of old communities has become a "test field" for promoting the development of suitable for the elderly [8], and previous studies have mostly focused on the transformation of the physical environment, ignoring the overall renewal of multiple issues such as social, material, and humanities. Based on the experience of renewing old communities in Japan, this study explores how to renew aging communities in Japan to achieve the sustainable development of space and human settlements.

Age-appropriate renovation is a hot topic in the current academic research, which can be divided into three types: 1) the renovation of building units or components, such as the age-appropriate renovation of unit entrances [9]; 2) the modification of specific spaces, such as the study of the temporal and spatial characteristics of outdoor activities of the elderly through observation [10]; 3) Aiming at the overall spatial transformation of the community [11-13],

such as the willingness and demand for age-appropriate renovation of different types of residential areas.

1. The renewal of old residential areas in Japan

Since the 1970s, the existing residential areas formed during the peak period of housing construction in Japan have faced practical difficulties, with the degradation of the quality of the living environment and the lack of public facilities, coupled with the trend of a declining birthrate and aging society, resulting in the increase in the vacancy rate of properties and the decline of community vitality, which has led to the renewal of existing settlements as a core issue of urban development. There is a significant correlation between the process of housing renewal and the evolution of housing policy in Japan: in the 1970s, the policy focus shifted from incremental supply to quality improvement, and since the 21st century, more emphasis has been placed on market mechanism and stock revitalization. In general, Japan's practice of renewing old communities has formed four major technical paths: 1) residential regeneration; 2) stock utilization; 3) functional replacement; 4) Transfer of property rights. These modalities can be used separately or in combination within the same cell update.

As a typical aging society in East Asia, Japan's practical experience in the field of age-appropriate residential renewal has important reference value, and there are significant cultural commonalities with China in terms of pension cultural traditions, rapid aging process, and regional development differences, and these similarities and Japan's leading pension industry can become an important reference for the development of China's pension system [14].

2. Selection of relevant cases

In this paper, the Huatian Residential Area Renewal Project led by UR Urban Regeneration Agency is selected as an empirical case. As a typical case of UR's old residential renovation, Huatian Community has been awarded the 2015 Good Design Award and the 2015 Environmental Friendly Design Award. The Huatian community has faced various problems, such as aging houses and supporting facilities, high maintenance costs, deteriorating living quality, and potential safety hazards [15]. In order to respond to the needs of the people and improve the public interest, UR has taken on the task of renewing the community as a whole. Therefore, the renewal of the Huatian community pays more attention to the transformation of the material level.

3. Renovation of Huatian community

3.1. Community Overview

Located in Adachi-ku, Tokyo, 15 kilometers from the city center, Hanada covers an area of 191,000 square meters and has 80 buildings with a total of 2,725 households. In 2011, the community began a renewal campaign focused on the transformation of the physical level. This renovation not only improves the level of material facilities and equipment in the community, but also helps to improve the living environment within the community.

3.2. Participants

The renewal plan of Huatian Community is promoted through market mechanisms, but at the same time, it also fully considers the synergy of government and private forces. Entities involved in the renewal of Hanada include UR, the Adachi City Office, the Hanada Council, the local community, and Uonuma City. This participatory approach helps to integrate market mechanisms with government policies and community needs, allowing for more effective

implementation of renewal plans. UR and Adachi Ward have played a key role in promoting the renewal of the Hanada community. As the owner of the land and buildings in the community, UR is the main designer and promoter of the renewal of the flower field.

At the beginning of 2010, UR and Adachi Ward jointly established the Hanada Community and its surrounding areas comprehensive community building council (Hanada Council) to coordinate and communicate all aspects of related work. The Flower Field Council plays an important role as an information center and communication hub in the process of urban renewal. Through the platform, different participants can exchange dialogues, identify and develop solutions to solve the various problems that exist at hand. The Hanada Council will continue to work hard to contribute to the improvement of the quality of life of residents and the development of the community.

Through the sound system design, residents' participation in the renovation has been effectively guaranteed. There are various ways to participate, residents can actively participate by joining autonomous organizations, submitting opinion letters, participating in flower field councils, etc., or they can participate passively by filling out questionnaires. As a sister city of Adachi Ward, Uonuma City provides raw materials for the construction of community activity centers and participates in a number of events with local characteristics. Adachi City hopes to promote the development of local small and medium-sized cities through the renovation of old residential areas, improve the vitality of local small and medium-sized cities, and solve the problem of the decline of small and medium-sized cities in Japan.

3.3. Update Policy

The core goal of Flower Field Regeneration is to create a livable area that is closely connected to the community, generations, the environment, and the street, so that residents can enjoy a safe living environment. The project adopts the method of completing in blocks, dividing the community into multiple plots, and adopting different renewal plans according to their own characteristics, such as partial transformation, centralized renewal, utilization of existing resources and conversion of use. In order to better achieve the goal of renewing the flower field, we can also pay more attention to the participation of residents.



Figure 1: Comparison of the pre-update situation and the update plan

(Source: upper panel—pre-renewal photograph of Hanahata Housing Estate, Adachi Ward, Tokyo; explanatory materials, Ministry of Land, Infrastructure, Transport and Tourism, Japan, <http://www.mlit.go.jp/common/000026192.pdf>. Lower panel—renewal plan for Hanahata Housing Estate, Urban Renaissance Agency (UR), <http://www.ur-net.go.jp/hanahata/vision.html>.)

The renewal plan of plots A, B and I was decided to demolish all the original residential buildings and convert them into educational land in response to the existing vacancy rate and operating costs. Among them, a baseball field will be built on plot A, a football field and basketball court will be built on plot B, and plot I will inherit the flower field nursery school on plot E. Plot C is a key plot for renovation, mainly including the installation of elevators in buildings 29, 30, 35 and 36 and the redesign of public spaces. In addition, Building 27 will also be used as a demonstration project, where the interior will be dismantled, and then the interior space of each unit will be redesigned and renovated from a Japanese-style to a Western-style style (Figure 2). The whole renewal project aims to create a living area where everyone can live with peace of mind and vitality, so that different generations, people and the environment, people and the street are closely connected, and life is better.



图2 更新后的27号楼

注:上图为外立面对比,下图为室内空间对比。
資料来源:UR都市機構. ドキュメント27号棟~目で見る27号棟リノベーション~, <https://www.ur-net.go.jp/hanahata/doc27debut1.html>.

Figure 2: Building 27 as updated

(Source: Urban Renaissance Agency (UR). Hanahata Housing Estate: Document No. 27—Debut Plan 1. <https://www.ur-net.go.jp/hanahata/doc27debut1.html>.)

Plots D, H, J, L, M will continue to be residential areas and will be renovated primarily for public spaces. On plot D, the façade will be repainted in soft, youthful pale brown and black-brown tones, while an open space will be transformed into a playground for children, surrounded by trees and fenced. Lot H will serve as the starting point for the green cloister mentioned below. A small park will be built on the east side of Lot J to provide a space for residents to interact and solve the problem of lack of green space in the eastern part of the flower field. The road on the north side of Plot J will be widened for easy walking. In plots L and M, corner plazas will be created, with benches at the corners to facilitate communication among residents. These renovations will help improve the quality of life of residents and provide them with more opportunities for rest, recreation and communication. They will also make the area more beautiful and vibrant. It is hoped that these renovations will make this area the best place to live for the local people.

Plots E, F, G, and K were rezoned primarily for public welfare and commerce. New commercial facilities and UR rental housing will be built in the North E area. The southern area will be built as a public facility for infants and the elderly. Lot F will be a community commercial center, including a supermarket, small commodity store, restaurants, services, and a health club. On the basis of retaining the existing housing, Lot G will use a wood-framed community activity center made of Uonuma fir from Uonuma City as a place for public events throughout the community, especially for large-scale events. Lot K will be built with lifestyle facilities, including retail outlets and F&B outlets on the first floor, to facilitate the daily life of residents and create a bustling neighborhood. Here, residents have easy access to their daily necessities, and the community atmosphere is more active and positive.

In addition, the Huatian Community is also designed with a living axis, an urban axis, a regional axis and a green axis to connect the various plots of the community and create an overall spatial order. As the main pedestrian path, the Living Axis provides safe and ample space for residents, commercial areas, green spaces, and other facilities. The urban axis connects Kusaka City with the center of Tokyo through a commercial district, creating a vibrant space. The regional axis connects the Hanada Memorial Garden, the Green Corridor, and the green space along the Nagamo River, making it a good place for local residents to enjoy recreation. The Green Axis is divided into two parts, one is a green promenade connecting plots C to H, and the other is a green promenade along the Nagamogawa River, aiming to create a green environment.



Figure 3: Plan the axis diagram

(Source: https://www.sohu.com/a/256770215_656518)



Figure 3: Current Residential Area

(Source: <https://new.qq.com/rain/a/20220419A01JDF00>.)

4. Conclusions and prospects:

Based on the analysis of the renewal process and case studies of Huatian community, it can be seen that the following experience and conclusion analysis can provide relevant enlightenment for the current renewal and transformation of old communities in China.

4.1. In terms of government support:

Government support plays a vital role in the healthy development of the entire pension system. Therefore, on the basis of improving relevant laws and regulations, it is necessary to further strengthen the construction of the pension system from the perspective of age-appropriate renewal strategies. To this end, we need to conduct specific and in-depth discussions from the following aspects:

The first is to advocate the diversification of pension models. With the elderly and the objects of support as the main body, we will provide more humane and specific pension policies to

provide more support and help for the elderly. The second is to strengthen the support of pension transformation policies. Drawing on Japan's comprehensive pension renovation model, the home renovation plan is formulated in detail from the five links of application, evaluation, sponsorship, renovation and feedback, and the transformation of the living environment of the elderly is strengthened. The third is to encourage the development of the pension industry. Through subsidies or the support of training licenses, developers are encouraged to join the field of elderly housing renovation to make it a more market-oriented industry. Fourth, strengthen the public's awareness of old-age care. Through early education, we can strengthen people's awareness of old-age care, let people consider old-age care from the perspective of sustainable development, and improve the whole life cycle of housing.

Through the above measures, we can finally ensure the improvement of the community environment for the elderly, as well as the housing of the elderly

4.2. In terms of the community environment

In Japan, the private land policy has given residents more space and autonomy, so Japan presents a dense density of low-rise residential buildings. Most residents have their own residential base and can improve and expand their homes to the extent permitted by law. This provides great potential for the renovation of elderly housing, not only limited to the internal renovation of bathrooms and toilets, but also through the overall renovation to improve the level of housing for the elderly, so as to maximize the benefit of resource utilization and reduce the energy consumption of civil buildings in the process of production, construction and use. This transformation method can meet the needs and habits of each user in a targeted manner, and maximize the use benefits.

In Japan, housing renovation is not only an economic benefit, but also a social responsibility. With the aging of the population, the renovation of housing for the elderly has become an important social issue. By increasing the level of housing for the elderly, it is possible not only to improve the quality of life of the elderly, but also to reduce the cost of medical care and nursing care in society. Therefore, the Japanese government and relevant institutions are stepping up their efforts to promote the popularization and promotion of housing renovation.

4.3. In terms of building facilities

We need to re-evaluate the feasibility and acceptability of domestic residential pension renovation and achieve marketization on the basis of national policy subsidies. Under the principle of voluntary autonomy, people are allowed to decide whether to carry out the renovation of the interior of their homes according to their needs and wishes, as well as the extent and manner of the transformation. When remodeling the interior part of a home, special attention should be paid to spaces that are frequently used by the elderly, such as kitchens and bathrooms, to improve ease of use and safety. Therefore, we need to conduct in-depth research on the existing residential development models in China to find a renovation strategy for senior housing that suits the characteristics of China.

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