

STUDY ON REVITALIZATION OF HOUSING COMPLEXES THROUGH UTILIZATION OF OPEN SPACES BASED ON RESIDENTS' ACTIVITIES

Shigeaki Takeda

Museum of Nature and Human Activities, Japan

Keywords: open space, revitalization of housing complexes, residents' activities

Study Background and Purpose

Systematically planned housing complexes in housing developments and new towns in Japan were intensively built for a certain period as a part of measures to accommodate a rapidly increasing number of people moving to urban cities. With the rapid change in the social environment after their construction, however, various kinds of problems have emerged in housing complexes, and these have been commonly seen around the world.

There are open spaces in housing complexes which are rich in greenery nurtured over many years and are secure and safe for pedestrians. They now face difficult challenges, such as how they will be preserved, passed on to succeeding generations, and utilized. It has been said that effective utilization of these open spaces may hold great possibilities for efficiently enhancing the value of housing complexes, and have great effects on community revitalization and new lifestyle creation. Moreover, it can be considered that this may also make a great contribution to the revitalization of housing complexes.

Although some studies on how effective utilization of open spaces may contribute to the revitalization of housing complexes have reported the importance of the value of open spaces as natural environments and places with memories to pass on to succeeding generations, few studies have been done to examine the future direction for use of open spaces to meet changing social demands, as well as which characteristics need to be preserved and passed on to the next generation from the viewpoint of the relationship between residents' everyday activities and the open spaces.

In this study, we analyzed the function and management system of open spaces which have survived in housing complexes, as well as their relationship to everyday activities that occur there, and then determined which characteristics need to be preserved and passed on to the next generation. Finally, we explored how open spaces should be revitalized in order to improve the attractiveness of housing complexes as places to live.

Planning and Development of Open Spaces in Housing Complexes and Changes in Their Utilization and Management over Time

In this chapter, we examined what kinds of planning theory and technologies were introduced for constructing open spaces in housing complexes during the period from the end of World War II to the high-speed growth era, as well as changes in their use and management over that period, in order to discern the challenges which open spaces are facing now.

Changes in planning theory for open spaces adopted by the former Japan Housing Corporation, which played a leading role in developing housing complexes in Japan, were

investigated through literature review. At the early stage of development, efforts were made through trial and error to create a good balance between the two functions of dwelling performance, such as ensuring enough sunshine, privacy, and ventilation, and the outdoors to protect residents' everyday activities. As the scale of housing developments became greater, however, open spaces were used to separate certain housing units from others, as well as pedestrians and cars, with an emphasis on creating a community. Furthermore, open spaces in new towns were systematically planned with clear, distinctive roles for parks with different sizes and functions according to the theory of neighborhood units, in which living spheres within walking distance were constructed, and by networking open spaces in the neighborhood unit.

When looking at the use and management of open spaces during the period between 1965 and 1975, the majority of residents were in their 20s and 30s with families. However, in recent years, related to the decrease in children and rapidly increasing numbers of elderly people, the number of single-person households has increased. As a result, the needs for open space use have changed greatly. In addition, a system for voluntary involvement of residents in managing open spaces in each housing complex was adopted at the early stage of development, but this system was abandoned after standardized rules and a system for their management were established as the scale of housing developments and the number of improvements increased.

In this way, systematically planned open spaces in planned housing complexes not only provided dwelling performance, but also served to support residents' everyday activities outside. These functions are still effective, and how they will be preserved and passed on to the next generation is one of the big challenges housing complexes face. In addition, disparities between the planned aims at the time of construction and the current demands for their use have been widening, which indicates that creating a new relationship with fresh use of open spaces that has been adjusted to meet residents' lifestyles and active involvement of residents in their management is another challenge.

Possible Revitalization of Housing Developments through Utilization of Open Spaces Based on Everyday Activities and their Challenges

In this chapter, the relationship between everyday activities of residents and functions of open spaces in Keyaki Dai Danchi, located in the suburbs of Tokyo, was studied. It was chosen as a case study for housing development revitalization, in order to find methods of possible revitalization by utilizing open spaces, as well as to elucidate future challenges.

The questionnaire survey indicated that, although the decrease in the number of children is still continuing, the societal need for open spaces that allow young children to play safely and securely remains high. Especially, there were a large number of young children accompanied by their parents who played in open spaces, such as small play lots where it is easy to look around, suggesting that improving open spaces to meet demands for places for young children to play, while their parents are creating a community at the same time, may be an effective way to enhance the value of housing developments as suitable environments for child rearing.

On the other hand, looking at measures related to the rapidly aging society, it was found that only the introduction of simple health-promotion machines was not enough to attract older people to open spaces. Creation of various functional spaces in a larger open space and segmentation of open spaces by function may draw people, especially older people, to use them. Such multi-tiered use of open spaces by different generations would be not only attractive to older people, but also contribute to forming a multi-generational community, which may be the future direction for housing development renovation.

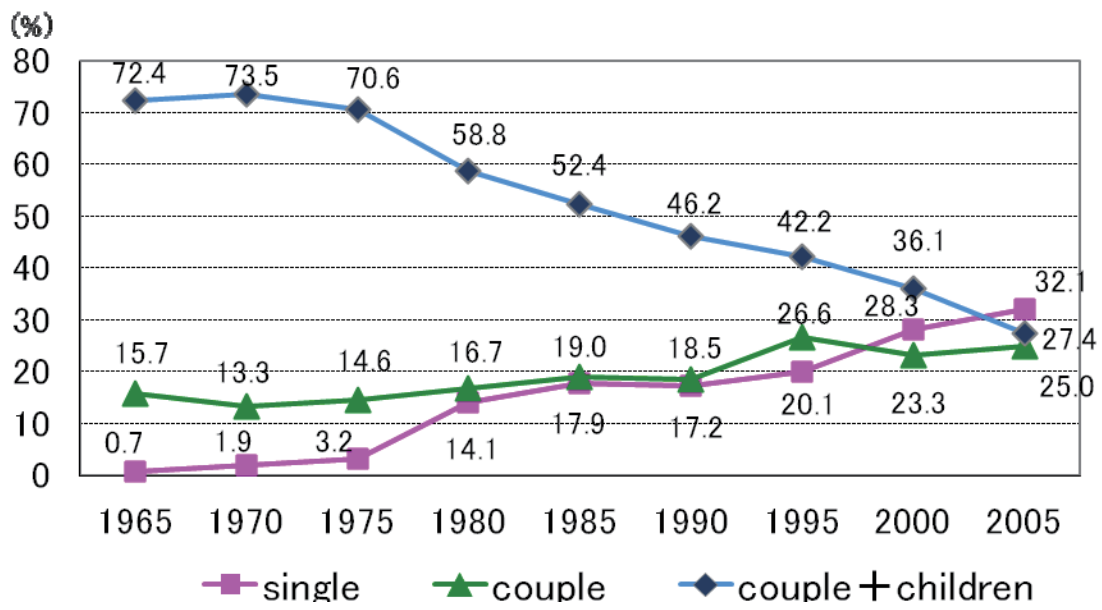


Fig. 1: Changes of family structure at housing complex



Pic. 1: Activities in open space of housing complex (1965)



Pic. 2: Landscape of housing complex (1978)

In addition, the survey indicated that even the same open space had largely different needs for use and function at different times. This showed that the creation of a system for managing and maintaining open spaces based on the situation of each housing development is an important challenge in rejuvenating housing developments in the future.

Possible Renovation of New Towns through Utilization of Open Spaces Based on Everyday Activities and Challenges

In this chapter, we examined the functions of open spaces and the relationship between the system for managing and maintaining them and residents' everyday activities in one section of Senboku Newtown, which is representative of the large-scale new towns developed in the early stages of new town development in Japan, through observation of those activities and an awareness survey on management and maintenance. Then, we considered possibilities for new town renovation using open spaces and deduced their future challenges.

The observations indicated that daily activities were most closely related to housing complex open spaces, and those had more diverse utilization and users in wider generations than public open spaces, such as parks and green walks. In particular, this trend was extremely noticeable in open spaces used for traffic, such as pedestrian ways and roadways. This showed that they function as a safe and secure space for traffic and serve as the foundation for community formation in housing complexes, suggesting that increasing their attractiveness and comfort and improving them to encourage residents' communication may be challenges to be addressed.

On the other hand, although utilization of block parks and green walks was higher, they were used disproportionately for specific purposes by certain groups of users, which suggests that another challenge is to seek new methods for their management and maintenance to accommodate the changing social environment, along with sharing functions based on the systematic layout plan at construction. It is especially important to improve block parks so for multi-generational exchange and usage. Since growth management of secondary forests, preserved at the time of construction, has been one problem, development of a system to allow residents to be involved in the daily management and maintenance of the forests may help older people find a new sense of purpose in life and may satisfy the need for involvement in park management. This would lead to the creation of another attraction in a new town as a place to live.

The awareness survey showed that residents considered rich greenery and the natural environment as one of the leading reasons in selecting to live there. This finding reconfirmed that systematically planned open spaces played a very important role in attracting people to the new town as a place to live. In addition, it indicated that the residents have a high appreciation for public open spaces, such as green walks and parks, as well as private open spaces in gardens and housing complexes, which suggested that a complementary increase in the value and function of open spaces may be an important challenge.

The survey also indicated that residents were most involved in daily maintenance of open spaces, such as weeding and watering, but that there were some residents who wanted more active involvement, such as exchange and cultural activities. In addition, residents who reported so were more emotionally attached to the location than those who didn't so report. These results suggested that it may be effective to create more involvement in managing and maintaining open spaces to increase residents' attachment to it and the attractiveness of the new town as a place. Moreover, the results of open questions asked in the survey made it clear that preservation of open spaces in systematically planned parks and the addition of

new value to them through voluntary involvement of residents in managing and maintaining them were also future challenges.

Utilization of Open Spaces that Contributes to Revitalizing Housing Complexes

This study reconfirmed that open spaces are of great significance in selecting a place to live, and that, with the increasing demand of older people to exercise in order to promote health, a secure and safe living sphere within walking distance of rich greenery created by networked open spaces is a valuable asset of housing complexes, and one which built-up areas do not possess. Increasing their value as good environments for child rearing by utilizing the existing open spaces would encourage younger families to move to housing complexes, and this might be one of the effective ways to rejuvenate housing complexes despite the decrease in children and increase in the elderly population. In addition, amid the problem of a decreasing sense of community in neighborhoods, changes of square-type open spaces into places for multi-generational exchange, and of open spaces only for traffic into places to develop residents' communication would lead to the creation of an attractive place for older people and forming a community of varied generations.

Naturally, open spaces need to be maintained at a certain level in order to enhance the attractiveness of housing complexes as a place to live, and this study also suggests that building a system for voluntary involvement by residents in daily maintenance may be one effective way. As it is expected that an increasing number of residents will prefer active involvement in managing their use over the traditional involvement in their maintenance, it is important to seek residents' involvement in creating new ways to use open spaces, which, in turn, may add another value to open spaces, rather than involvement only in dealing with the present issues.

In summary, we deduced the characteristics of open spaces in housing complexes that are still working effectively, as well as the future direction for their management and maintenance, by observing and analyzing residents' everyday activities, and which characteristics it is most important to preserve and pass on to the next generation. We also clarified that it is possible to create a new relationship between residents and open spaces and enhance the attractiveness of housing complexes by improving open spaces to accommodate the greatly changing social environment and by creating a system for maintaining and managing the improved open spaces. This study successfully suggested ways for rejuvenating housing complexes through utilization of open spaces.

References

- [1] "Theories and Practice on Play Lot Design in the Early Collective Housing Site Developed by Japan Housing Corporation" Syunsaku Miyagi, Takeshi Kinoshita, Ryosuke Shimoda. *Journal of the Japanese Institute of Landscape Architecture* 64(5), 703-708, 2001-03-30 (In Japanese)
- [2] "Study on Resident's Behavior of Block Park in Neighborhood" Shimomura Yasuhiko, Noboru Masuda, Daisyu Abe, Satoshi Yamamoto, Kousuke Suzuki. *Journal of the Japanese Institute of Landscape Architecture* 58(5), 217-220, 1995-03-31 (In Japanese)
- [3] "A Study on the Utilization and Evaluation of Block Parks at Tama New Town" Jyunkichi Kano, Youichi Kumagai, Akio Shimomura, Ryohei Ono, Seiji Ishibashi. *Journal of the Japanese Institute of Landscape Architecture* 63(5), 653-656, 2000-03-30 (In Japanese)
- [4] "The annual report of Japan Housing Corp", 1955-1980. (In Japanese)