

A SMALL PLAZA AND A STREETSCAPE IN KUROMON-CHO

Abstract: To place architecture within a site is to place an open space around it, as well as to form a streetscape. This study examines the characteristics of the contemporary Japanese open spaces and the streetscapes through a case study of an architectural design. The author has involved in designs of a construction and renovations of three adjacent houses. The construction of the oldest house dates back to 1881. Since then, structure of the city and the lifestyle of families have significantly changed. This study discusses on the transformation of them as well.

Keywords: Architectural Design, Plaza, Streetscape, Structure of City, Structure of Family.

1. INTRODUCTION

In Japan, there are three major metropolitan areas, namely, Tokyo, Osaka, and Nagoya. Nagoya is located about 300 km west of Tokyo, and about 150 km east of Osaka. It has the fourth largest population at roughly 2.3 million as of 2016^[1], followed by Tokyo, Yokohama, and Osaka. In the Edo era from the 17th to the 19th century, it flourished as among the shogunate's three family cities.

In a corner of Kuromon-cho, Nagoya, there is a site on which three houses stand. The oldest was built in the latter half of the 19th century; the second was in the first half of the 20th century, and the third was in the second half of the 20th century. At a time in the past, large scale streetscapes of black gates and black fences existed in this neighborhood. At present, most of them have disappeared.

The author has been involved in the construction and the renovations of these three houses since 1989. This construction and renovations were considered to be an interesting case study to confirm the changes of the living environment in Japan, especially those of the external spaces. An elevation of three houses is shown in Fig. 1, and its images are shown in Fig. 2 to 5.

2. OPEN SPACE OF JAPANESE HOUSE

2.1 Map of Nolli

In 1748, Nolli (1701–1756) presented the Map of Nolli (1748)^[2], which colored the buildings to indicate the public and the private spaces of Rome. The map showed that streets and plazas, as public spaces, were formed clearly by the arrangements of buildings.

Indeed, in old European cities, of which their structures were formed in the medieval age, streets and plazas were mostly composed by continuous elevations of buildings.



Fig. 2 Small Plaza and Streetscape of Kuromon-cho.



Fig. 3 Streetscape of Black Gate and Fences.



Fig. 1 Elevation of Three Houses.

In contrast, in Japan, mostly, elevations of buildings do not stand continuously along the streets, except in

certain places, where low houses or shops were arranged along streets. Especially, plazas that were surrounded by



Fig. 4 Streetscape of Black Fences.



Fig. 5 A Black Gate as a Part of Black Fences.

continuous elevations cannot be found in the history of Japan (European style plazas are designed only in the modern day).

After the method of the map of Nolli, I colored the buildings around Kuromon-cho in black, as shown in Fig. 6. As the buildings are not adjacent, they seem to be arranged disorderly, and the blank spaces do not seem to form the streets clearly.

In Fig. 7, colors of the buildings are inverted, and the blank spaces are colored in black. As shown in this figure, it is not the buildings themselves, but the blank spaces that form the streets. In other words, each building has an open space around it, and the streets are formed by the boundary of the open spaces rather than the buildings. The following sections will look at the characteristics of these open spaces.

2.2 Formation of the Urban Structure

The history of urban formation in Japan is different from that in Europe. Jinnai (1985) [3] pointed out that “if we plot on a map of Edo the locations of public

in the history of Japan, public events had been mostly held inside the premises of shrines or temples. Not only shrines and temples but also most buildings had fences around the premises, and public spaces, such as plazas or gardens, were placed inside the fences. Thus, the public spaces were not planned outside the fences.

The typical urban structure of Japan is considered to be an assembly of individual buildings that have fences around them, and a number of plazas and gardens are built within their fences.

2.3 Transformation of the Residential Districts

In recent years, most sites in residential districts have been subdivided. Because of their high prices, it became difficult for regular earners to buy a large estate. Moreover, even if one’s ancestor had a large estate, the high inheritance and property taxes would discourage people to inherit the property.

This change of urban structure is considered to be the result of the changes in the demographic and family structures.



Fig. 6 Colored Map of Buildings.

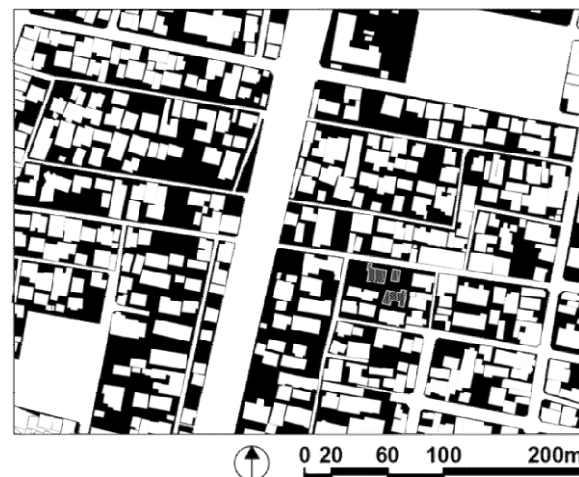


Fig. 7 Colored Map of Open Spaces.

entertainment, such as street theatre exhibitions or shrine theatre, we find that they concentrate heavily in popular shrines and temples and the areas around them.” In here, “Edo” is the era when Tokyo was designated as the old capital of Japan from 1603 to 1867. As Jinnai mentioned,

After the 1950s, the number of a large family, which means that the eldest son lives with his parents even after his marriage, have been decreased; in contrast, single-person households have been increased significantly.



Fig. 8 Streetscape along Black Fences.

According to the national census^[4], the percentage of large-family households decreased from 32.6% in 1955 to 5.2% in 2015, whereas that of single-person households increased from 3.4% in 1955 to 34.5% in 2015. The percentage of married couples who have no children also increased; and the average number of households in 2015 decreased to 2.38. Thus, along with the change in household structure, the sizes of the residence became smaller and diversified. Hence, large sites with fences are not common anymore.

At the same time, as the population of Japan has begun to decline, the increase of vacant houses has become a serious social problem.

2.4 Open Spaces Facing the Street

Along with this change in urban structure, small sites without fences have become common. However, mostly, the elevations of buildings do not face the boundary of streets, except for certain high-density commercial areas. In typical residential areas, even if there are no fences, buildings are often set back from front streets.

In Japan, a regulation called “oblique-line-limitation”, which restricts heights of buildings according to the distance from the front streets, is widely applied. Thus, certain open spaces are intentionally planned to construct higher buildings.



Fig. 9 Streetscape at Near Side of Black Fences.

Fig. 8 and 9 show the streetscapes in front of the three houses in Kuromon-cho. The site with fences are on the left-hand side; across the street, on the right-hand side and also near side, there are examples of sites without fences. Their open spaces, facing front streets are used as

parking spaces, bicycle storages, or plant yards. Moreover, outdoor units of air conditioners are placed, under eaves of wooden houses.

These open spaces are able to be considered as contemporary Japanese-style spaces, which express an overflow of the living atmosphere of residences. However, these are not public spaces, but private spaces that do not shared by the neighbours.

3. TRANSFORMATION OF THREE HOUSES

3.1 Three Houses in Kuromon-cho

As described in the previous chapter, present residential areas in Japan have structures with a mixture of relatively large sites with fences and small ones with private open spaces facing the front street. Kuromon-cho is among the typical examples of the former.

The structure of Kuromon-cho was formed as a castle town. It located about three kilometers from the Nagoya castle built in the city center in the 16th century^[5] (the Nagoya castle was burnt down during the Second World War, and was rebuilt in 1959); and the City Hall of Nagoya is located nearby. “Kuromon-cho” in Japanese means “Black Gate Town”. It could have been named after the consecutive black fences and gates.

The three houses were built in 1881, 1937, and 1989, at the corner of Kuromon-cho, within a site of about 990m². (Hereafter, the three houses are described as “Meiji House/Flat,” “Showa House,” and “Heisei House/Flat,” corresponding to their construction era in Japanese calendar and their uses). Fig. 10 to 12 show the appearances of the three houses, and Fig. 13 is the site plan of present.

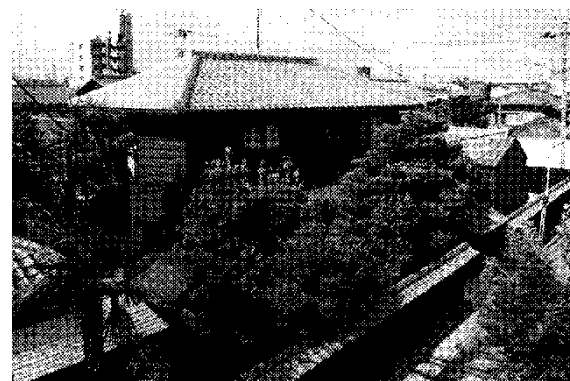


Fig. 10 Meiji Flat.



Fig. 11 Showa House.



Fig. 12 Heisei Flat.

3.2 Construction of the Heisei House

The Heisei House (later Heisei Flat), a two-story reinforced concrete house, was built in 1989. It was a house for a family of an old parents' eldest son. At that time, the old parents lived in the Meiji House (later Meiji Flat), a two-story wooden house.

The Showa House, a one-story small wooden house, once a house for the eldest son's family, became a guest house with a Buddhist altar. Until in 1993, when the old parents died, the two households had lived together in this one private site enclosed with fences.

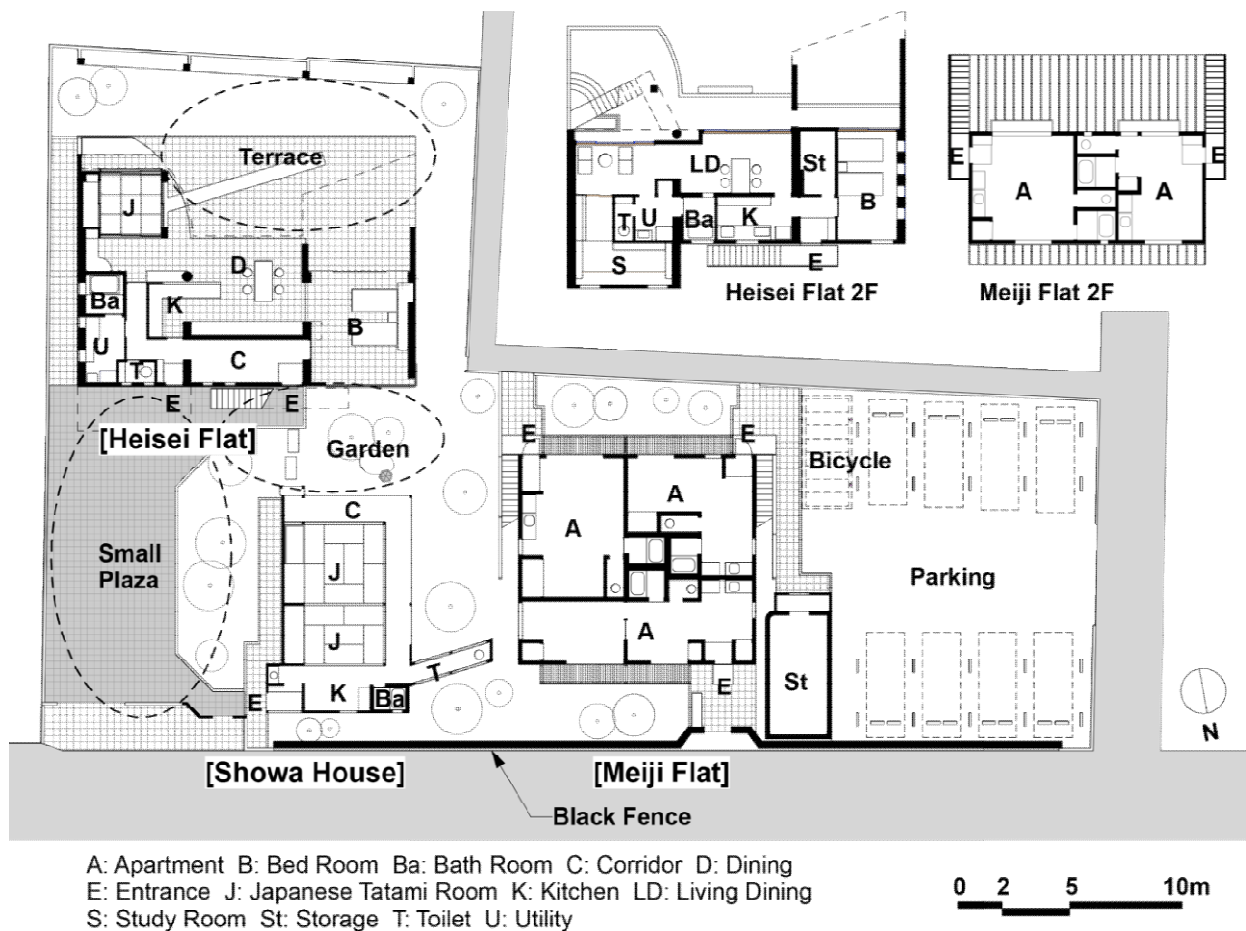


Fig. 13 Site Plan as of Present (2016).



Fig. 14 South Terrace of Heisei House (1989).



Fig. 15 Garden between Heisei House and Showa House.

As the architect of the Heisei House, I designed a terrace on the south side of the house, as shown in Fig. 14 and preserved a garden on the north side between the Showa House, as shown in Fig. 15. I considered the new reinforced concrete house should be away from the historical streetscape, so that the house was placed at the far back of the black fences.

3.3 Renovation of the Meiji House

When the old parents died, the Meiji House and the black fences were in the serious damaged condition for their old ages. At that time, they were ramshackle structures. The eldest son decided to recondition the old fences and convert the old house to a flat with five small apartments. It was also my proposal as the architect to preserve the streetscape.

The renovation of the decrepit house was not easy. It did not have a firm foundation, and what could be used were only its wooden columns and beams. Everything, except for the frame, was removed, and the frame was elevated (jacked up) from the ground to put a reinforced concrete foundation. A scene of the construction process is shown in Fig. 16, and the interior of the one-room apartment on the first floor (ground floor) is shown in Fig. 17.

The open space on the west side of the flat was diverted to the parking spaces. After the renovation, the site was shared by the lessor and the lessee. However, as they lived apart on the west and east side of the site, there was not any confusion for sharing the site.

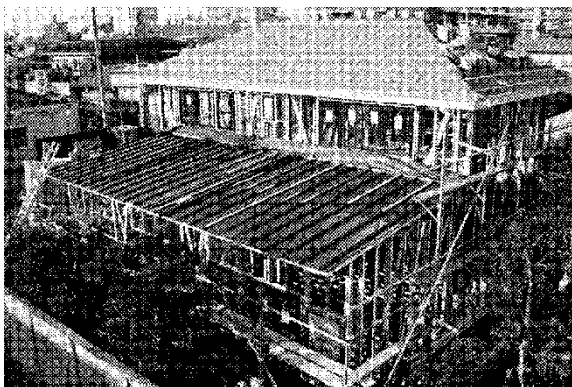


Fig. 16 Construction Process of Meiji Flat (1994).



Fig. 17 Interior of Meiji Flat (1994).

3.4 Renovation of the Heisei House

By 2008, the husband and the wife who lived in the Heisei House died. As their son and daughter were already married and had left their home, the house became unoccupied.

The site was succeeded by the son, who is the author of this paper. However, the author's family could not move to the house for at least 10 years because of his work is in Tokyo. As the Heisei House was already more than 20 years old, its maintenance was required. In 2016, the two-story house was converted into two apartments, as the original 181m² house was too large for an apartment. Thus, it was subdivided vertically into two-layered apartments, by adding an external steel structured stairway, shown in Fig. 18.

Although the Showa House with the Buddhist altar was used as the owner's second house, the site is lived only by the lessee of the Meiji Flat and the Heisei Flat in most days. It would be a common situation for general collective houses that only the lessees live in the site. However, this case in Kuromon-cho was unusual, as it had originally been regionalized by fences as a private site. The problem associated with Japanese architecture that do not directly face streets is how to utilize this kind of the enclosed private sites.

I planned to place a "Small Plaza" as an open space between the black fences and the Heisei Flat, which connects to the existing garden between the Heisei Flat and the Showa House. This plaza and garden, as shown in Fig. 18 and 19, became a common space for the residents of the Heisei Flat and Showa House, that is, the author's family and the lessee.



Fig. 18 Garden between Heisei Flat and Showa House (2016).



Fig. 19 Small Plaza in Front of Heisei Flat (2016).

The author believed that this was a big change to convert the enclosed private site to one with the plaza, which is open to the street. The small plaza was designed as a fresh and vivid space that acts in concert with the streetscape of black fences. The form and texture of the Heisei House are also designed to act in concert with the

traditional streetscape and complement their respective new and old characteristics.

The section is shown in Fig. 20, and the interior of the two apartments on the first and second floors are shown in Fig. 21 and 22.

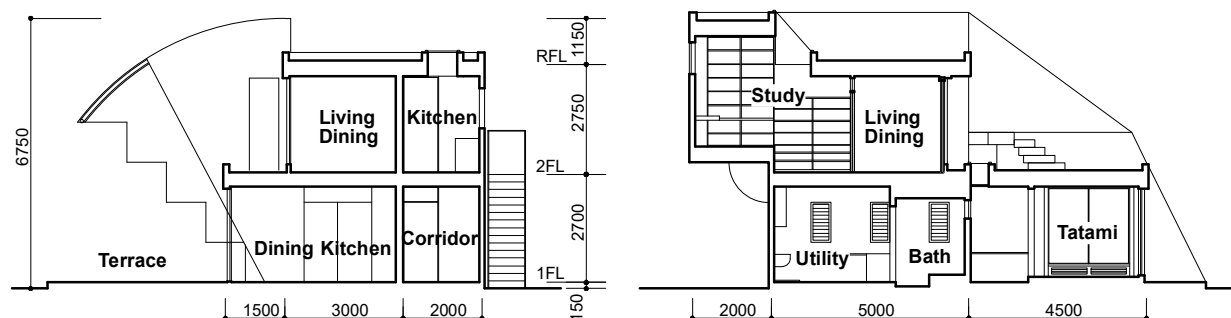


Fig. 20 Section of Renovated Heisei Flat (2016).



Fig. 21 First Floor Apartment of Heisei Flat (2016).

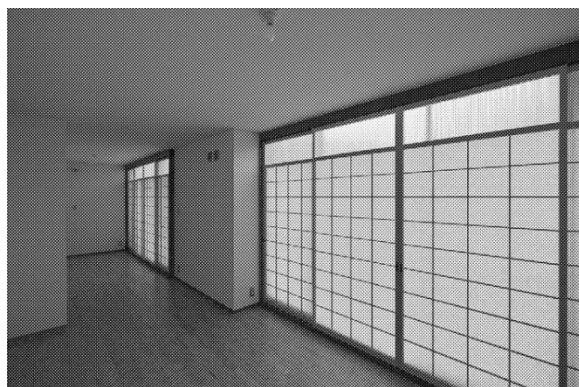


Fig. 22 Second Floor Apartment of Heisei Flat (2016).

4. CONCLUSION

In Japan, it is difficult to use old houses without any change, as the urban structure and the residents' lifestyles change. Old houses should also be improved with respect to earthquake resistance and heat insulation.

In this paper, through a case study of an architectural design, the author described the changes in urban and family structures, and identified a solution so that a large site could accommodate such changes without

subdividing it and removing its traditional fences. By utilizing a part of the site as an open space, it may have been possible to inherit the streetscape with the black fences.

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