



**The Modernization of the Korean Housing under
the Japanese Colonial Rule -
The Introduction of Foreign Housing Culture and
the Conflicts It Faced**

Sohn, S. K.

*Department of Architectural Engineering,
Chung-Ang University, Ansung, Korea*

Email: sksohn@cau.ac.kr

Jun, N. I.

The Catholic University of Korea, Bucheon, Korea

Hong, H. O.

Kyunghee University, Seoul, Korea

Yang, S.

University of Ulsan, Ulsan, Korea

Paper to be presented at the ENHR Conference
July 2nd – 6th 2004, Cambridge, UK



The Modernization of the Korean Housing under the Japanese Colonial Rule

-The Introduction of Foreign Housing Culture and the Conflicts It Faced

Sohn, S. K., Chung-Ang University, Ansong, Korea

Jun, N. I., The Catholic University of Korea, Bucheon, Korea

Hong, H. O., Kyunghee University, Seoul, Korea

Yang, S., University of Ulsan, Ulsan, Korea

I. Introduction

The Japanese colonial period (1910-1945) is the climax of the modernization in Korea, especially in housing. During the period of civilization (1876-1910), from the opening of a port to the Japanese annexation of Korea, housing has been influenced the least. That is, the minimum leading group only accepted the characteristics that both the Western and Japanese have, and they were also not able to totally abandon the traditional housing. The majority of the Koreans still had attraction towards the traditional style.

The housing style in Korea starts to change during the middle of the Japanese colonial period. The Japanese and Western housing styles, which were introduced during the period of civilization, started replacing the traditional housings, and the construction style altered to produce cohesively by using new materials. Also, the multi-family dwelling, the past form of the modern Korean urban housing, was constructed, creating the basis for modern housing.

In order to understand the current Korean housing, the report will focus on the modernization procedure of the housing during the Japanese Colonial period, which provided the base of the modern Korean housing. Thus, what the traditional Korean lives absorbed from the foreign cultures, what were altered, and how the Korean housing got influenced during such changes.

II. Housing problems under the Japanese colonial rule - Urbanization and homelessness

Korea has been the victim of economic exploitation since the Japanese annexation of Korea in 1910. Especially, as the rural communities became impoverished, many needy people crowded into urban areas, such as Pyongyang, where the military base was located in, or Busan and Incheon, port cities. Also, as a lot of Japanese moved to Korea due to the the Manchurian Incident in 1931, and as the farmers, who were deprived economically and socially, continuously moved to urban areas, the population of Kyungsung (Seoul today) rapidly increased. The decrease in immortality rate due to medical development and the natural increase due to higher birth rate, were also the main factors of such phenomenon.

Kyungseong, eventually, suffered from severe homelessness. In 1944, the 90 thousand homes were in short, and the homelessness reached 40% (Sohn, 1986). However, the Japanese colonial government was indifferent in housing policies for the Koreans. Under such circumstances, the supporters and volunteers established an organization for housing aids and constructed undersized homes and lent them for free. Such housing facilities were called as 'a simple frame house', and they shared the structure of a row house.

The easiest way to solve the housing problem for the farmers or lower status people was a live-in servant, at a rich man's house. Such persons reached 40~50 thousand people. The poor who were not admitted to the life of a servant had to live in a shanty house or cave. The actual formation of shanty communities started when the poor people made underground shack under the city land at Uljiro in 1920. This spread to everywhere of Kyungseong in the 1940s. By that time, the government defined shanty residents as 'inhabitants who illegally live on the government or private land, such as a dry riverbed or forest land' (SMG, 1981). The lives of shanty residents were extremely overwhelmed.

Since the appearance and welfare of the city were being threatened by the rapidly increasing urban poor and their shanty houses, the government constructed housing for the Koreans and Japanese. It was like servants' quarters of a huge Korean traditional housing. Forty units were built at Yongsan for the Japanese, 28 outside of Namdaemoon and 60 north of Dongdaemoon for the Koreans. However, there was a huge discrimination between the Japanese and Korean. For the Japanese, one building with 2 units, each of which were about 43m², with four rooms, living room, and heating systems, was provided. On the other hand, for the Koreans, one building with 2~4 units, each of which were approximately 10 m², were provided, mostly for the lower class people. It was divided into two rooms, one of which was used as the entrance and kitchen, and the other was the heated room (Shim, 2002). These were like the dormitories for English poor laborers after the industrial revolution

III. Mass production of housing

1. Urban traditional housing

The urban traditional housing first appeared in Seoul in the 1930s along with urban planning laws. Those were the solutions for urbanization and overcrowding that swiftly occurred since the Japanese colonial rule. People who were able to purchase a house, compared to the ordinary city people, who were previously described, mostly occupied them. The main purpose of the traditional urban housing was to be purchased. The housing conditions from that time caused a change in people's idea of housing. Housing were being considered as properties. Thus, no houses were constructed for the people who already owned, but they were built for sale. That is, houses were built in huge groups. The urban traditional housing built in the metropolitan area were constructed in groups of 6~7 to 30~40 units, depending on the size of site. This was very different from the previous construction methods. Since the

houses were supplied in groups, the value as a production was emphasized. Also, for the mass production to be sold for anyone, they had to have the most generalized and standardized characteristics.

The urban traditional housing combined the structural and ornamental characteristics of traditional upper class housing in Seoul or the Kyunggi areas. The spatial characteristics were the closed yard of a court style, introvert floor plan, and arrangement which facing street. The inner yard changed to have several different functions as it got connected to the living room, and abandoned its traditional functions, such as farming or working. The urban traditional housing with different production methods, purchase methods, and space planning were constructed a lot until the end of the Japanese colonial rule. These settled as the most continuous type of urban housing. This was accepted and developed as one of the important modern housing.

2. CHC housing

The Chosen Housing Corporation (CHC) supplied multi-family housing in groups. As the Sino-Japanese war (1937) happened, various businesses, such as war industry expanded and more labor forces were needed. Thus, housing facilities for laborers, who crowded into urban areas, were essential. In such circumstance, depending just on private sector could not solve the homelessness. Therefore, the government eliminates the goal of profit, and built a large amount of dwellings for the public's sake, and established the 'Chosen Housing Corporation' to provide such housing facilities. The urban traditional housing was usually for middle class people, however, the CHC housing was usually for laborers. The CHC housing have a significant meaning that they were the first modern styled housing complex that opened the phase of mass production, abandoning the traditional concept of housing construction.

The CHC housing had its exterior and interior totally Japanese, due to the policies given by the government. However, they also considered the Koreans by making one room with under-floor heating systems called Ondol. The CHC provided with 10 kinds of standardized floor plans for mass production. By that time, this was an efficient idea considering the modern living styles. The standardized plans had five sizes, and they were 66m², 50m², 33m², 26m², and 20m². The lot sizes had to be three times greater than those of the floor areas. The small three types could be built as row houses. The largest type (66m²) was sold to Japanese government officials or staffs, the second largest one were sold to both Japanese and Korean people, the third largest one to middle class Koreans, and the last two sizes (26 and 20m²) to lower class peoples including Korean laborers.

The CHC housing was mostly based on the Japanese concentrated floor plans or those with inside corridors. However, they also contained the Ondol room and Japanese Tatami room together, having a little bit of Korean in those. The larger unit usually chose the Japanese floor plan with the inside corridor, which had an entrance, connected a long corridor that leads to each room. Each room also was connected by sliding doors showing the characteristics of Japanese open plan. Also, the building as placed in the middle of the site, and the surrounding areas were decorated as yard, which was very different from

the traditional floor plan. For example, traditional room with a wooden floor was destroyed and was changed as the living room, and the bathroom and toilet were made inside the house. During that time, steel and cement were scarce, so wood was used to build the CHC housing. Cement was only used for the basis, roof tile, and exterior wall, and wood was used for the pillar, rafter, interior wall etc.

3. The first apartment

During the Japanese colonial period, there was another type of multi-family housing for laborers called 'Yo'. They had a similar structure to today's low story walk-up apartment. They were usually grouped in one or two buildings, but in Sindangdong and Yongsan, there were 3~8 buildings in groups. The size of the unit was approximately 10m², which made it possible to live barely. Kitchen, bathroom, and toilets were to be shared as in a dormitory. They can be considered as the first apartment style introduced in Korea, and later, develops to become the multi-family housing, apartments, which were built as welfare facilities by the Japanese companies for their workers who moved into Korea.

The word, apartment, first came out on a magazine called <Chosen and Architecture> in 1925. The article that introduced apartment was about the construction of a three story concrete apartment, describing the 'Mikuni apartment' that is known as the first apartment in Korea with pictures, floor plans, and specification of the construction. The Mikuni apartment was built for the employers of the firm Mikuni in Korea. The Yurim apartment, also known as the Toyota apartment, was also built for the Japanese. However, since its purpose was for rent, it is considered as the first apartment that was not used as an employees' residence. Contrasting to the precious structure of yo, which was a usually brick building, the structure of an apartment improved to use brick or reinforced concrete. The Yurim apartment was a four-story reinforced concrete building, and the Mikuni apartment was a three story brick one, both with modern exterior.

The Japanese constructed most apartments until the CHC constructed the Haehwa apartments in 1942. This was the first apartment to be built by the Koreans, however, most of them consisted of the Japanese Tatami, being a lot more Japanese than Korean.

IV. The preservation and alteration of traditional housing

1. Changes in life style

Since the 3·1 Movement in 1919, the Koreans' resistance against the Japanese colonial rule intensified. In addition, the international view towards the Japanese also got worse causing the Japanese to stand for cultural government. Since the 1920s, movements for the improvement of living conditions and housing became very active throughout the nation. Such phenomenon was caused by the dailies and magazines, which were published after the 3·1 Movement. The cultural movement that spread among the Korean scholars emphasized 'cultural improvement', 'culture businesses', and 'cultural life'. It showed

the strong intentions of the Koreans to escape from the former usual habits, and to achieve a new era. It focused on education, industry, and culture improvements without any conflicts with Japan. They believed that it was the fastest way to gain independence.

In 1920, dailies and magazines became legal to be published, and they started printing articles about life development. By that time, the modernized living style and cultural dwelling that the Koreans thought about was a westernized housing, which had a bathroom and a toilet inside, with electricity and water supplies. The middle-class intellectuals led the improvement of living conditions, which concentrated on improving children and women's status, gaining the harmony of family, developing housing facilities, encouraging westernization, through broadcasts. However, the discussion about the housing development was usually about the inefficiency of conventional housing, and no specified solutions were provided. Yet, such fact can be considered as a realization of the significance of improvement of housing and living conditions.

2. The renovation of traditional Hanoks

The altered form of traditional Hanoks, which is called the improved Hanok, appeared in the 1920s. The change in traditional Hanoks started from the change in materials. New materials such as brick, glass, and galvanized iron were used and created a huge change in the exterior and interior of houses. The galvanized irons were very cheap that in the beginning, eaves troughs were used for the raindrops on the roofs. From the 1930s, the eaves were made shorter to reduce the load of the roof and replaced those with the galvanized iron awnings. As the galvanized iron was used, the slope of the roof became more flexible, making it possible for the eaves to point to the sky. By that time, housing for the ordinary people also used the same structure and ornamentation of the upper middle class housing. Also, from 1922, only nonflammable materials had to be used, thus, the thatched roofs changed to tiled ones. Such changes due to the use of galvanized irons, became the main factor of changing the improved Hanok's exterior during the Japanese Occupation period to become extremely lavish, decorative, and ostentatious. Also, the use of bricks prevented mice from intruding into the house by blocking the wooden floor. Bricks were also used to decorate chimneys and most of the exterior of the house. Another huge change was the disappearance of separate spaces for the household head and servants from a traditional house. However, the kitchens were still conventional styles, and houses with toilets and bathtubs inside were very rare. The improve Hanoks that were used later used tiles instead of bricks, and the use of paint and varnish became common (KHC, 1979).

V. The process of compromises and conflicts between housing cultures

The introduction of foreign housing cultures since the period of civilization, started to become more complicated in the Japanese Colonization period. As the western housing styles became more

common, they greatly influenced the traditional Korean housing styles. However, as it is commonly known, housing is a combination of the apparent architectural style and the inner life style. Thus, it is very difficult to change the housing type without any changes in the living styles. As a proof to this hypothesis, the Koreans did not absorb various foreign housing styles as they are. They were transformed into eclectic housing types based on the circumstances in Korea. Therefore, as the traditional Korean housing style got mixed with foreign styles, complex styles such as Japanese, Japanese-Western, Korean-Japanese, and Korean-Japanese-Western etc.

1. Conflicts with the Japanese housing

Japanese housings were generally employees' residence for the Japanese, who were sent to Korea for illegal governing purposes. At the beginning, they believed that, 'in order to cope with the Korean weather, Western is better than Japanese'. Thus, they built Western houses with Japanese tiles or zinc iron roofs. Those were Western-style house with only one or two rooms with Tatami. However, employees' residence that was built later on at Yongsan, used Japanese cement tiles and slates for roofs and partially used wire concrete for the walls, which had the features of a wooden Japanese housing with a flat wall structure. The Japanese settled in the middle of the city and filled the area with Japanese streets and Japanese housings.

The housings, which were absolutely Japanese, faced problems in the heating and cooling systems due to the different weather in Korea. Therefore, they started constructing more than one Ondol room, in addition to the Tatami room, made the walls thicker, and reduced the sizes of the windows and doors. In other words, they started adapting the Korean housing styles. Koreans also adapted the Japanese housing style. For example, they facilitated Ondol in a Japanese style house. The Han's house in Hamheung consisted of a Japanese floor plan, appearance, and structure. Especially its exterior was exactly like seeing a Mazia, which is a housing style that appeared along with the urban development for Japanese merchandisers. Inside, there was an entrance, and the narrow hallway is connected with the small floor of Korean verandah. Such method with the double-corridor inside can be considered as the Japanese style of space arrangement. There were other Japanese characteristics found, such as the Tatami room for visitors, and the Japanese bathroom inside the housing.

2. The process of compromises of Korean, Japanese, and Western – Munwha housing

During the beginning of the 1920s, the word 'culture' came to Korea due to the influence of the culturists. It became the symbol of modernization and Westernization. Modern housing or western housing, or all the housings that were different from the traditional style were called the 'Munwha housing'. After the destructive earthquake in northeastern part of Japan, the Japanese started showing more interest toward stronger structures and materials, which were safe from earthquakes. Under such circumstances, the construction of Japanese-American eclectic modern housing became common, and the

American style bungalow became very popular. According to <Chosen and Architecture>, the housing style popular in America consisted of a living room surrounded by verandas, the slope of the roof was not steep, and the edges of the eaves was more projected. Such style was called bungalow housing. This was called the Munhwa housing in Japan, and it eventually got transmitted into Korea. The Western style housing, which Kim, Yu-bang introduced along with the Japanese influence, also took a part in the settlement of Munhwa housing. He claimed that people should adapt the western style housing because the conventional housing was inappropriate for the modern lives. He introduced the American colonial house, bungalow, and British cottages. That is, the Munhwa housing with red slate roofs were introduced in Korea (Ahn, 2001).

The housing with bungalow style first had people to enter the house through the porch and veranda, then through the entrance and hall. The interior was similar to the Japanese housings, which connected each room through hallways. This was different from the method of space arrangement of traditional Korean housing, because it provided privacy for each room. Among the interior areas, there was living room, which was planned based on stand-up living. For model housing, the differentiation of functions was more intensified by dividing the living room into family room, library, and guest room.

The Munhwa housing ended up being a complicated combination of Korean, Japanese, and Western styles. The original Japanese American style mixed the Korean living style, such as using Ondol, a traditional heating system in Korea. The Munhwa housing that first appeared in the 1920s and lasted until the end of the Japanese colonial period copied the Japanese-American eclectic styles. However, since the end of the Japanese colonial period, they started having characteristics of new housing style, created by various architects, such as Park, Gil-ryong. The Western housing style that became a trend and that spread throughout the nations was considered too inappropriate to the Korean living styles. The criticism against blind imitation started to become severe. Thus, the Korean architects, who have had modern education, critically accepted Western housings and combined them with the Korean living styles and started enforcing eclectic styles of housing.

VI. New housing paradigms

As various women's organizations were established to support the 3·1 Movement in 1919, and as the women's status improved due to Japan's emphasis on culture in the 1920s, a new class called 'Modern girl' appeared in the 1930s. These women, who studied abroad or read Western books, influenced the marriage and lives of many women during that time. In terms of housing, especially, they proposed to make the dining room near the kitchen and not to eat separately depending on gender or age.

The improvement of housing accelerated as the decoration, foods, and family system, for modernization of living styles got emphasized. Along with the improvement of life styles, the toilets, and in order to solve heating problems of traditional Korean housing, they proposed changes in the materials

of Ondol and reduction of window sizes. Discussions about the improvement of housing style were often held in public opinion. The largest interest was about the improvement of toilets and kitchens. Other than such issues, they also believed that the openness that the traditional Korean housing had causes a huge problem of heating (Oh, 1931). Thus, they proposed to reduce the size of the window. They also proposed to change the material of the Ondol so that it can be used for a longer duration with less financial burden. They even talked about natural lighting and ventilation problems. They also tried to change the irrational life styles to become logical by the rearrangement of circulation, the improvement of kitchen and dining room, and the introduction of stand-up lives. They also tried to respect privacy between each other. Also, the traditional living areas, which were just characterized as 'rooms', began having accurate names based on their functions.

In the 1930s, the architects announced a more developed idea of housing improvement. They mentioned the unsanitary servants' room, and proposed to place all important bedrooms in the south-east direction, and to have the bathroom near the kitchen. They emphasized the advantages of Ondol and to have the kitchen at a noticeable place. As a result, the interest on traditional housings started to increase, along with the criticism of Munhwa housing, which imitated Western and Japanese housing styles.

Park, Gil-ryong, the most influential architect of that time, argued that the Koreans must accept the Japanese housing independently and provided solutions for housing improvement. In detail, he suggested, the functional arrangement of housing spaces, the considerations of direction due to function, the provision of entrance, and the improvement of scientific circulation of kitchen, etc. When considering Park's small housing plan with eclectic styles of Korean, Japanese, and Western, he used inner corridor on a concentrated floor plan, which introduced the entrance, and divided the inside into reception area and living area. Also, the kitchen and the bathroom came into the house, and a children's room and housewives' room were separately provided. It seems that he divided the functions of the rooms. This floor plan seems to clearly portray Park's modern concept of housing. Also, he suggested that, considering the problems coming from the circulations of each room in a traditional Korean housing, it is better to copy the Japanese style 'entrance'. He believed that instead of wearing the shoes into the house, the Japanese style, which allows the people to take off their shoes from the entrance, will suit the Koreans better. He also claimed for the importance in scientific improvement of kitchens. He considered the functions of kitchen and made the location near the master bedroom and connected it with the maid's room and the dining room. The bathroom was divided into three types, which were in Japanese toilet room, lavatory, and bathroom. The bathroom was located at the end of the hallway along with the kitchen, so that the plumbing for water supply and drainage would be more efficient. The main floored room called Daechung disappeared, and the master bedroom called Anbang and a room across from Anbang were located in the North and South, divided by the hallway, which replaces the function of living room. The room for the household head called Saranbang was Westernized and made to have the reception function. Such housing, that Korean architects suggested with a perspectives of housing improvement,

convey the effort to adapt foreign housing styles in the Korean way and to keep the traditional features, such as Ondol or wooden floor called Maru.

The Munhwa housing of Kim, Yoo-bang was a dwelling with a Western bungalow style that was popular before and after the big earthquake (1923) in Japan. It compromised the exterior of a traditional Korean housing by lengthening the eaves of a gable roof. A model house shows that there was privacy among each room because each room was connected by the hallway, which led from the entrance, porch or veranda from the front of the house. Inside the house, there was a room for stand-up living, which had a similar function with a living room. Other model houses, had the living room to be divided into a family living areas and reception ones, and each room was to be entered through the kitchen and the hall.

Park, Dong-jin argued that when choosing a housing site, one should consider the housing environment, limit the building-to-land ratio of the house and keep a garden in the secured open space, choose a concentrated floor plan, and to improve the facilities of the kitchen, toilet, and Ondol. Park especially emphasized to renovate the sanitation through a scientific method. He also provided many solutions related to the Western style of kitchen cabinets, natural lighting in the kitchen and toilet, and ventilations (Dong-A Daily News, 1931).

A Japanese architect Onogiro worked in the Association of Chosen Architects (ACA) and presented an article, titled the 'The alteration of housing in Korea' in the <Chosen and Architecture> in June, 1922. He argued that the 'cultural housing' that fits the Korean weather and custom, should be appropriate for the protection against a cold weather. To do so, he suggested reducing the surface area of the walls, to connect each room with the entrance and the hallway, and to locate the living room in the center. Also, he suggested making all the windows double no matter the time it would take, to increase the protection effect against cold. He then brought in the heating system using warm water, which warm water circulates the interior of the house, for the first time in Korea, and made it possible to have warm water supply in kitchens and bathrooms.

In 1941, from the ACA, a Japanese architect Goiziwa Nomura Gobun established the research group for the small housing with Park, Gil-ryong. They studied various aspects, such as the architectural structure, materials, construction, and the floor plans for each local community in Korea. Based on their study, they suggested housing improvement considering local characteristics such as weather, climate, customs, and habits etc. The specific guidelines of planning were; comfortable connections between each room, a Daechubg that can be used through the four seasons, no front gate, a water supply inside the kitchen, breaking down superstitions, planting with trees, consideration of a public garden, consideration of space division, and plan of appropriate width of the roads.

VII. Conclusions

The study focused on the modernization process of Korean housing during the Japanese colonial rule (1910-45), when foreign housing cultures were first introduced. The Korean housing culture started showing a drastic change in the middle of the Japanese colonial rule, compared to the period of opening of a port to foreign countries, when there were little changes. The main factors that caused such phenomenon can be the requirements of improving life styles and housing conditions, and demands for the mass production of housing, which are caused by homelessness due to a drastic change in the urban population as the society and economy changed and more foreign cultures, such as Japanese, were introduced to Korea.

The Koreans did not directly use the Japanese and Western housing styles, which were constructed during the Japanese colonial period. They were adapted and altered into the Korean style, and eventually, produced various eclectic housing styles. The floors, exteriors, or the structures kept the foreign characteristics, but Ondol was used to solve heating problems due to different weathers. It settled in Korea as a combination of Korean, Japanese, and Western dwellings. Such phenomenon was due to the Koreans' realization that Japanese and Western housing were limited to contain the Korean living styles and to the increasing criticism against plagiarism.

The modernization of housing culture in Korea seemed to be changing into those of Japan and Western countries. However, in reality, nothing has changed, since the Koreans did not actually give up the traditional living style or absolutely adapt foreign housing cultures. This shows that housing is not just a physical living place but it also contains a meaning, which includes the social cultural environment. The meaning of housing becomes very useful in comprehending the errors, conflicts, and changes, which were experienced during the introduction of foreign housing cultures, in modernizing the Korean housing style. Furthermore, it proves that it is erroneous to consider the modernization and westernization of Korean housing style as the same thing.

References

- Ahn, Sung-Ho (2001). A study on the meaning of cultural residence in the 1910-1945. *The JKHA*, 12(4), 185-194.
- Cho, Yong-Hoon, Lee, Kwang-No (1988). A study on the background and characters of urban squatter area, Seoul. *Journal of the AIK*, 4(6), 61-72.
- Kim, Ran-Ky, Yoon, Do-Keun (1987). A study of the housing inheritances in the colonial empire of Japan and the housing conditions in the U.S military government in Korea (I). *Journal of the AIK*, 3(5), 59-67.
- Kim, Sang-Hee (1995). A comparative study on the modernization process of planning between Korea and Japan. *Journal of the AIK*, 11(12), 41-52.

- Kim, Sung-Woo, Song, Sung-Ki (1998). The Beginning and Transformation of Eclectic Style in Korean Architecture , During 1920-30s. *Journal of the AIK*, 14(12), 165-174.
- Pak, Cheol-Jin, Jeon, Bong-Hee (2002). The socio-economical background and characteristics of plan of urban traditional housing in Seoul of 1930s. *Journal of the AIK*, 18(7),95-106.
- Shim, Woo-Gab,Kang, Sang-Hoon, Yeo, Sang-Jin (2002). Korean apartment housing from the period of Japanese occupation. *Journal of the AIK*, 18(9), 159-168.
- Shin, Byung-Hak, Lee, Sun-Koo (1989). A study on the present use of the housing development in Sangdo-dong area, Seoul, built by the Japanese Housing Corporation during 1941-1945. *Proceedings of AIK*, 9(1), 113-118.
- Seoul Metropolitan Government (1981). *Sixty Hundred Years of Seoul (1910-1945)*. Vol. 4.
- Sohn, Jung-Mok (1991). The city planning and location of main architecture under the Japanese rule in Seoul. *Journal of the AIK*,35(2), 34-39.
- The Dong-A Daily News* (1931). March 13.
- The Korean Housing Corporation (1979). *The Twenty Years of KHC*.
- Yim, Chang-Bok (1991). A study on house modernization efforts by Korean architects during 1910-45. *Journal of the AIK*, 7(5), 135-146.
- Yoo, Jae-Woo, Cho, Sung-Ki (2002). A study on the transforming characteristics and indignity of the urban housing on modernizing period of Korea. *Journal of the AIK*, 18(7), 59-66.
- Yoon, Sang-Heon, Sohn, Sei-Kwan (1993). A study on the variation of spatial structure of urban housing in Korea. *Proceedings of AIK*, 13(2), 227-232.

* This study was sponsored by Korea Research Foundation.