

MODERN HOUSING COMPLEXES IN SOUTH KOREA. TYPOLOGICAL EVOLUTION AND URBAN ADAPTATIONS

Author:

DARIO PEDRABISSI

dped@koreatech.ac.kr

Institution:

KOREA UNIVERSITY OF TECHNOLOGY & EDUCATION (KOREA TECH)

INTRODUCTION

The contemporary South Korean landscape is characterised by a massive display of modern apartment buildings. They are omnipresent in their monotonous manifestation and represent the dream of the Korean population. Serial mass housing is a typology that has had a great diffusion all over the world, but how has modern housing developed in South Korea? To this end, what are the resulting adaptations?

This paper retraces these key evolutionary aspects. Methodologically, it draws on a scholarly literature review as well as on-site photographic surveys, analysing both the urban and architectural transformation from the early modernisation period to the present condition of contemporary housing. An historical background introduces Korean traditional urban houses, to be used as a context to describe the contemporary modern city that has developed since the 1960s. The main emphasis is then placed on the urbanisation process that fully matured during the 1980s together with a focus on the mass housing typology as the main pivot in the urban transformation. Finally, the paper will draw a parallel between modern Western theories and Korean applications.

EARLY MODERNISATION

The first great modernization impact on the Korean peninsula occurred during the Japanese colonization period (1910-45). Japan exerted huge pressure on Korea even before its annexation. The first urbanization wave dates back to 1876 when Korea was forced to drop its long-held policy of isolation. Ten port cities and five inland cities opened to trade, generating new needs in modern urban planning.¹ Starting from the 1930s, Japan designated the Korean colony to be an engine of the Japanese military complex for its imperialistic expansion plan. Consequently, a great deal of new infrastructure was developed around the country.

Seoul did not register any large spatial transformation from its foundation year (1394) to the colonization period. Starting from 1910, the “ordering of streets” urban policy altered the original street network, widening existing thoroughfares and building new roads. The main purpose was to merely introduce economic and military principles in the organization of the urban space, completely altering the traditional principles of the original city. Urban design prior to this time was based on a conventional oriental geomantic idea called *Pungsu - Feng Shui* in Chinese – a set of theoretical principles based on the study of the wind and water. While the main urban fabric was based on a gridiron layout, there existed a maze of secondary arteries. Gelézeau described the space between the

axis as follows: “Roads providing access to the houses branch chaotically, forming a convoluted maze of frequent dead-ends, all highlighting the essentially pedestrian nature of this network”.²

The city of Seoul was then remodelled according to new modern urban standards that were first tested in Tokyo and later adapted to other cities such as Osaka, Kyoto, Taipei, and Pyongyang.³ Large new boulevards were introduced and existing roads were widened according to the City Ward Improvement Plans of 1912 and 1919.⁴ Further urban development occurred during the 1920s, but it is in the 1930s that the first modern planning acts appear: the 1934 Joseon City Planning Act and the 1936 Gyung-sung City Plan, which also resulted in a large expansion of the boundaries of Seoul.⁵

In terms of architectural developments, new colonial Western Style buildings were introduced in the cities – mainly public buildings and transportation facilities – intended to be used as tools to consolidate colonial rule. The buildings adopted neo-classical eclectic styles mainly deriving their influence from Britain, due to the well-established relationship between Japan and the UK.

Urban Housing Evolution

During this early modern development period, three distinct types of housing took form in Korea: Western-style houses, Japanese-style houses, and the urban *hanok*. While the Western-style houses maintained their original composition, which derived from other colonial modifications, the Japanese-style house was eventually adapted to the extremely harsh Korean winters. These houses were the middle-corridor type and the *machiya* passageway type, which eventually employed the traditional Korean heating system (*ondol*), originating the first hybrid integration of a Japanese house with a Korean traditional technological feature.⁶ The urban *hanok* derived from the traditional Korean house and first appeared in the 1920s, becoming the dominant type of urban housing built in Korea until the late 1960s.

The urban *hanok* saw great success as a house of the commoners due to its affordability and the preservation of the traditional housing layout. Its plan varied regionally, but in Seoul the U-shaped plan was the most common. The L-shaped set of rooms was combined with an I-shaped annex, used for the entrance gate and the services. The rooms were set around the *madang*, a central open courtyard that functioned as a distribution space, but also as storage and as a common area. The rooms usually included a kitchen, a master bedroom, a second bedroom, and a *maru* (*daecheong*). This was a wooden-floored semi-open space placed between the two bedrooms, to provide a ventilated area during the Korean summer.⁷ The traditional *ondol* heating system was fuelled from the kitchen, and for this reason, this room was connected to the master bedroom. This type of house then became a point of departure for the development of new types of urban housing to respond to new market demands and urban settings.

The process that initiated the prevalent use of modern apartment buildings developed through a series of housing typological transformations that originated when the traditional urban *hanok* became inappropriate to respond to the increasing urban population pressure. Two main housing types evolved from the urban *hanok*: the spec house and the multihousehold dwelling.

The first evolution of the urban *hanok* was the spec house: A ‘ready-built’ single-family detached house known as *jipjangsajip*, which entered the scene in the 1960s.⁸ Small-scale developers built the spec house type, adopting new modern materials and techniques, such as the brick façade with a reinforced concrete structure and gable roof. The house was either one or two stories and the main innovative aspect was the introduction of the boiler heating system. This allowed the transformation of the traditional floorplan arrangement, which had been defined by the strict relationship between the kitchen and the master bedroom due to the *ondol* heating system, where the cooking and heating occurred in the same place.

Another important development is the internalisation of the *madang*, the exterior court that once served as the circulation and relational space, even though the internal *madang* was initially used more as a hall instead of a proper living room. These two new arrangements introduced a novelty in the floorplan layout, based on a living-dining (LD) and living-dining-kitchen (LDK) axis: arrangements that became very influential for the later apartment building floorplans.⁹

In 1985, revision of the Building Act allowed owners of single-family homes to convert their property and build collective housings on the same site.¹⁰ Consequently, two new urban housing types, the multihousehold dwelling (*dasedae juteok*) and the multi-family dwelling (*dagagu juteok*) began replacing the spec house. The law was intended to boost the ongoing urban densification process by allowing the transformation of single family home into collective dwellings. Thus, the neighbourhoods where the urban *hanok* and later the spec houses were first built, witnessed another radical transformation with the advent of the multihousehold dwelling. This had a negative effect on the quality and quantity of open space, and for this reason, the multihousehold dwellings became the accommodation standard for low-income families.

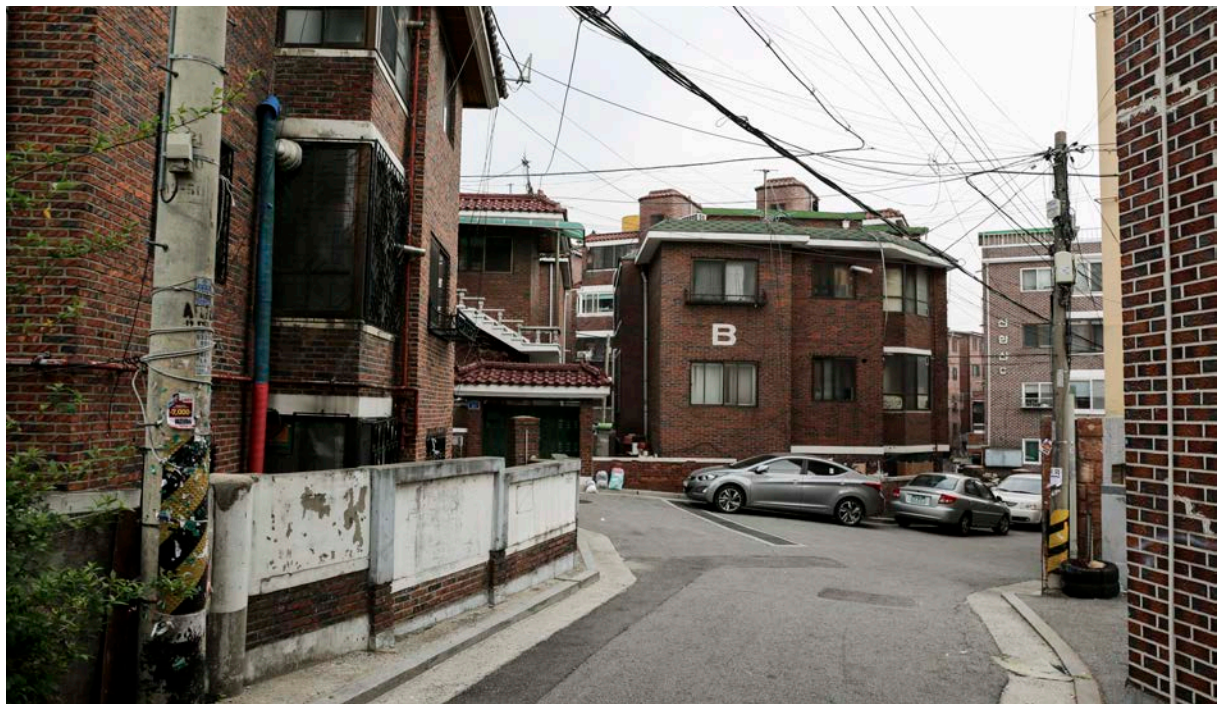


Figure 1. View of a multihousehold dwelling area in Sanggye-dong, Seoul. (Source: the author)

FAST URBAN TRANSFORMATIONS

After the Korean War (1950-53) Seoul experienced one of the largest single country-to-city migrations ever recorded. Korea's economic "miracle of the Hangang river" exploded and starting from the early 1960s, this area experienced exponential demographic growth.¹¹ Urban development in Seoul was impossible to control and thus the urban organization introduced by the Japanese was kept. New large-scale public works projects were planned, and spontaneous development was expropriated and destroyed.¹²

South Korea was ruled by a military dictatorship from 1961-87, and during the leadership of President Park Chung-Hee (1961-79) the modernisation process was especially key to the political agenda. This period was characterized by massive economic growth coupled with severe repression. President Park had a clear intention to use the urban transformation as a tool for social reform, introducing large scale population control in Seoul. Thus the construction of vast mass housing projects (called *ap'at'û tanji*) was seen as "a very powerful tool for guiding and managing the social groups that have been at the core of South Korea's economic development".¹³

To accommodate an increasing number of new urban dwellers, Seoul adopted an urban growth management strategy based on ring-radial roadway circulation, multiple centres, and green belts. The proposed urban model was inspired by the Western New-Town Planning and Garden City ideas. The

resulting 1966 Comprehensive Development Plan was put into place to facilitate the expansion of the city, proposing four ring roads at varying distances from the city centre and thirteen radial arterials.¹⁴ The junctions of these roads were to become subcentres.

This plan was followed by the 1972 National Development Plan, which introduced a new greenbelt system, easily leapfrogged by unplanned development. The plan also pushed new development toward the south side of the Han River and, by the mid 1980s, the expanse of urbanization on both the north and south banks of the river was equal.¹⁵ A further decentralization process occurred in 1989, with the construction of five new large towns – Ilsan, Jungdong, Sanbon, Pyeongchon and Bundang – with a planned variety of population density. Recent ambitious new town projects include Sejong Metropolitan Autonomous City and Songdo Smart City.

Characters of Mass Housing Complexes

In this context, modern apartment blocks became the prevailing housing typology and consequently the dominant image of the South Korean landscape, spreading through both the city and countryside. As Florian Urban pointed out, “serial construction methods became the prevalent technology of mass housing around the world, and simultaneously a stylistic principle of modern city design”.¹⁶ In the 1970s, the prefab high-rises comprised less than 4 percent of the housing stock in South Korea, while that number rose to 50 percent in 2000. Accordingly, in the same period the percentage of individual houses decreased from 90 percent to approximately 25 percent.¹⁷

Korea’s first apartment building, the Mikuni Apartment in Hoehyun-dong, was constructed in 1930 by a Japanese company to provide accommodation for its employees. It was followed by a second apartment built in 1935 in Naeja-dong. In the same year, records show the construction of the Yurim apartment, the first to be built for rental purposes.¹⁸ None of these buildings survive today.

We have to wait until 1958 to see the first apartment buildings built after Korea’s liberation from Japan. The two examples worth mentioning are: The Jongam apartments, comprised of three buildings, four to five stories high, the first to be equipped with flush toilets; and the Mapo Apartments – ten six-floor apartment buildings – constructed between 1962 and 1964 by the Korean National Housing Corporation (KNHC), equipped with individual hot-water heating systems. Although the formal policies that applied to the apartment buildings were defined later on, the Mapo apartments established a set of planning principles for the layout of the *tanji*: collective housing, at least 300 units, autonomy, and shared facilities.¹⁹

The *tanji* realised exponential growth when the government launched the Housing Construction Promotion Act in 1972. Amended and strengthened in the early 1980s, the law promoted the construction of high-density residential areas within the city boundaries and other newly designated areas.²⁰ The *tanji* were then defined as a grouping of large urban blocks, containing monofunctional residential slabs, interspersed with small commercial buildings and service facilities.

The construction model employed the Fordist production system, where residential slabs are built in a reinforced concrete structure and prefab elements. The main building types are slab buildings having a single-loaded corridor system with open corridors (gallery access), and multiple vertical access. These slabs usually have the ridgeline of the building oriented east-west to maximise sun exposure, leaving the north façade merely as a functional element, aesthetically forgotten. These features allowed the maximum land use and the minimum construction cost, but at the same time created a completely new environment that disintegrated the traditional landscape and social relationships. Nevertheless, the apartments became a symbol of higher social status and a highly desired product that is still very popular nowadays.



Figure 2 (left). View of Boram Apartments, Sanggye-dong, Seoul (Source: the author)

Figure 3 (right). View of a communal area in a tanji, Cheonan (Source: the author)

In terms of interior design, the typical apartment floorplan is a combination of different influences. As analysed earlier, the traditional floorplan developed from the transformation of the urban *hanok* into the spec house, where the *madang* became an interior space and started to function as a living room. The Western influences travelled through Japan, adopting new building technologies and new spatial configurations. The typical LDK floorplan system (Living, Dining, Kitchen) was already developing in Japan starting from the 1940s and then employed in Korea, becoming the standard layout in modern Korean apartments. Nevertheless these influences were combined with the traditional floorplan, creating an hybrid arrangement together with these foreign systems, which blended the continuity and consistency of the traditional plan into the contemporary design.²¹

Hybrid Modernist Theories for Korean Serial Apartments

To trace the architectural references of the Korean modern apartment building we should analyse the theories of the modern movement and the experiments developed by the architects that rallied around the CIAM. After the previous two CIAM congresses on «The Minimum Dwelling» (Frankfurt/Main, 1929) and «Rational Land Development» (Brussels, 1930), «The Functional City» (1933) represented an ambitious project to apply modern methods of architectural analysis and planning to the city as a whole.²² In particular, Le Corbusier's Athens Charter publication of 1943 foreshadowed Korean urban planning by codifying the paradigm of strict urban functional division.

Modern Korean development was inspired by the most visionary unbuilt projects that have influenced many urban planners around the world. Specifically, the ones developed by the great modern masters at the beginning of the twentieth century. Ludwig Hilberseimer with the projects of High Rise City in 1924 and Berlin's *Gendarmenmarkt* Square in 1927, envisioned a repetition of identical residential buildings, disposed in a logical geometrical layout, completely disconnected from the existing context. In a similar fashion, Walter Gropius's housing diagrams from 1929 show a clear scientific approach to the problem of large housing complexes. Ultimately, Le Corbusier's three main urban proposals – Contemporary City for Three Million People, 1922; Plan Voisin, 1925; The Radiant City, 1933 – were the main source of inspiration for the Korean architectural vision, in particular, his adherence to height, light, and geometrical order, were seen as a salvation from inefficient and unhealthy urban sprawl.

Another very important theory that influenced the definition of modern apartment complex planning in Korea is Clarence Perry's Neighbourhood Unit. The American urbanist developed the Neighbourhood Unit theory in 1929, which essentially defined a residential block delimited by transportation arteries. The block is designed to be self-sufficient, containing all the facilities needed to support the residences therein, such as shops and services. The Neighbourhood Unit would be designed to accommodate a population that ranges from 3,000 to 9,000 residents - which corresponds to a primary school capacity of 1,000 to 1,600 students. It should be noted, however, that the residential buildings were intended to

be low-rise individual houses. This urban scheme is clearly influenced by the Garden City, but the interesting fact is that the Garden City movement predicated urban dispersal as a reaction against the congested urban centre, whereas the Korean *tanji* were intended to be located in the very heart of the city and in the new expansion areas.

Eventually the urban layout adopted by Korean urban planners was a hybrid interpretation of Clarence Perry's Neighbourhood Unit, combined with the modernist's proposition of collective high-rise residential towers and slabs. In reality, the *tanji* were not completely self-sufficient and the contemporary city is characterised by a collage of high-rise and low-rise buildings, with strict functional division.

When comparing the 1950s and 1960s European applications with the Korean *tanji*, we note a distinctive political approach. While the European projects were developed as 'social housing' for the poor and located at the periphery of the city, the Korean high-rise apartments were built within the existing city, and oriented toward the growing middle class and upper-middle class. Similarly, while European social housing was intended to be rented, Korean housing was based on a policy of home ownership.²³

Other, more direct influences, should be credited to Japan and to The USA. Japan developed its post-war modernisation process earlier than Korea, also being the only Asian country to have developed an architectural avant-garde – the Metabolism – which has had an international impact. In contrast, South Korea had advanced a very unique corporation system, defined by the country's large construction conglomerates (*chaebol*). These large companies played – and still play – a key role in the urban and regional transformation, where large housing projects are the instrument used to dominate the real estate market, leaving only the small and middle-scale projects to more independent and progressive architectural firms.

FINAL REMARKS

South Korea has experienced one of the fastest urban transformations in human history. Retracing the evolution of different housing types that emerged through the modernisation process allows us to comprehend the resulting urban morphology and the altered social relationships in the contemporary city. After the initial adaptation of the traditional urban house and the early modern developments, the apartment building became the prevailing housing typology in South Korea. Its success has been determined by three main factors. First, the *tanji* were located in the city and not at the periphery as in the European cases. Second, the apartment buildings were constructed with high-quality standards and oriented toward the rising middle-class and not the society's lower strata. Third, the remaining low-rise residential areas suffered from a lack of urban and architectural quality, becoming unattractive to the majority of the population, while in Europe the vernacular city was seen as a privileged place. In Korea, apartments buildings became the image of modern life and a highly desired product. Still nowadays the apartments blocks are considered the best and most convenient preference for Koreans, and this trend is far from over. Thus a global architectural typology has been locally conditioned in both its spatial adaptation and in its political application, determining the success of a housing type that has been disparaged elsewhere.



Figure 4. View of apartment complexes in Cheonan (Source: the author)

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