

Seoul *Apatu*
: A house is a machine for capitalism



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Abstract

CIAM’s Charter of Athens and Le Corbusier’s books stipulated new urban planning and new laws of architecture. The theory of the modern architectural movement, which defines the principles of modern cities, has been systematically applied since the construction of the French apartment complex. “Mapo Apartment” was the first complex-type apartment in South Korea built by the government in 1962, and Korean call it “Apatu.” However, contrary to the original intention of modernist high-rise apartments, it actually played an object of desire as an urban landmark for the upper class of South Korea. Over the next sixty years, apartments have completely established themselves as Korea’s representative residential typology, and about four hundreds thousands housing units continue to be produced until now under the leadership of large capital.

First, a comparative analysis between US and Korea explains the success and failure of modern architecture. This movement of modernization appeared in different forms between US and Korea. “Pruitt-Igoe” in US can be said to be “a house is a machine for living in” as a product of industrialization. It was an apartment building to accommodate a sudden increase in the urban population, but it soon faced limitations symbolizing poor management, poor architectural beauty, and poor living conditions. On the other hand, Korea’s “Apatu” was, conversely, used as a tool for industrialization. At that time, the government built “Apatu” to urbanize the capital city Seoul, thereby achieving the goal of increasing the population and development of the city. Since then, “Apatu” has successfully operated as “A house is a machine for industrializing,” which symbolizes modernized and luxurious lifestyles.

Next, the history of Apatu will be studied. The Korean modernity of the modernist ideal proposal will be investigated. In Korea, the history of high-rise housing called Apatu can be largely divided into three stages. From the early 1930s to the 1960s, it was used as a solution to solve the housing problem in Seoul in the process of modernization after the Korean War. However, from the 1970s, the target class of Apatu was changed to the middle class, and from that time the supply of it began in earnest. In the process, private construction companies participated in the industry. After that, There was fierce competition between major construction companies, and as a result, Apatu product of more value than necessary continued to be produced. Since then, each construction company has taken various strategies to sell Apatu to the public at a slightly higher price.

Le Corbusier’s utopian theory was left as a dystopia of commercialization of architecture contrary to his intention through the process of Korean modernization. As a result, major elements closely related to the residential environment, such as school districts of good quality and comfortable infrastructure have been determined depending on which brand’s apartment complex it is, which soon caused a continuous rise in its housing prices. In other words, it has served as a place for reproduction, where wealth is continuously transferred and high-quality education is provided. Fundamental solutions will be studied to overcome the problems created by the top-down development of such standardized housing.

Introduction

The modernization movement, theorized by architects gathered around CIAM, especially Le Corbusier, encouraged progressive and universalist urban planning based on the idea of ‘modernity’. The fourth CIAM held in Athens in 1933 pursued a universal framework for urban development that constitutes housing, labor, leisure, and transportation, which are the four major functions of modern cities (Conrads 1975, 137-45). Indeed, the Charter of Athens has become a symbol of the consensus of all officials regarding urban planning and large-scale apartment construction. The theory of the modern architectural movement has been systematically applied since the construction of the French apartment complex. In fact, people in the 1950s and 1960s were enthusiastic about the modern architecture movement led by Le Corbusier (Gelézeau 2007, 159). “Mapo Apartment”, the first complex-type apartment in South Korea built by the government in 1962, was another example, and people call this typology “Apatu.” It can be seen as the beginning of “Apatu,” a representative apartment typology in Korea for middle class family of around four, consisting of one large living room and kitchen, three individual rooms and two toilets. Moreover, generally these Apatu buildings form a cluster, not composed of a single structure, which is called “Danji.” This concept of “Apatu Danji” seems to have been greatly influenced by the Neighborhood Unit theory created by C. A. Perry in the United States in 1929 (Kim 2020, 121). This district, mixed with the model of the garden city, has a self-sufficient form of all necessary amenities, religious facilities, shops, and schools for a community. This became the basic concept for constructing large Danji, and the two special laws of the time (the Housing Construction Promotion Act of 1972 and the Urban Redevelopment Act of 1976) became major factors that expanded the culture of it in Korea (Kang 1991, 19).

“Because I believe that we will break away from the old and feudal lifestyle of our country and take a modern collective communal lifestyle, bring a lot of savings in terms of economy and time, improving people’s lives and culture.”

President Chunghee Park’s speech (1962), which was presented at the completion ceremony of the Mapo Apatu, the first case of the combination of these modernization theories, refers to the “clean-up of the outdated past (National Archives of Korea 2022).” As shown in the speech, it focused on growth and productivity and efficiency as its means of value. Apatu, like new machines, have become tools and efficient means of industrial development. It was not “machines for living” as the product of industrialization Le Corbusier refers to, but was just a “machine for industrialization. (Gelézeau 2007, 167)” Korean apartments did not systematically accept the principles of international architecture defined by CIAM. These principles were applied to Seoul because of the need for rapid growth of the city through large-scale construction of houses, and apartments were more suitable for the mass production system than private houses, and based on this, rapid growth took place from the 1960s to the late 1980s. Over the next 60 years, apartments have completely established themselves as Korea’s representative residential typology, and about four hundred thousands housing units continue to be produced until now under the leadership of large capital (Ministry of Land, Infrastructure and Transportation 2022). Contrary to the original intention of modernist high rise apartment, it actually played a an object of desire as an urban landmark for the upper class of South Korea so far.



Figure.2 Ville Radieuse
Le Corbusier, Ville Radieuse, 1933, Archdaily, accessed February 21, 2022,
<https://www.archdaily.com/411878/ad-classics-ville-radieuse-le-corbusier>



Fig.3 Seoul Apatu Danji
Han, Sang-Hyeok. 2018. “One line of real estate common sense.” Chosun, December 19, 2018.
http://realty.chosun.com/site/data/html_dir/2018/12/19/2018121901762.html.

Chapter 1 : Different modernity between US and Korea

1. 1 Success and failure of modern architecture

Pruitt-Igoe apartment complex, Designed by Minoru Yamasaki in St. Louis in 1952, was a government effort to solve the housing crisis in the United States. Consisting of 33 buildings with 11 stories high, the project was a large residential complex that could accommodate a total of 3,000 households. In addition, it was recognized as promising architecture with various amenities, abundant landscaping, and several community spaces, based on Le Corbusier's ideal idea. It was a time when high-rise apartment types were in the spotlight as a solution to the urban housing problem in France, the United States and all over the world (Jung 2015, 1).

However, negative opinions began to emerge about Pruitt-Igoe a few year later. Unlike the concept of a general housing where each building contact with the street, Pruitt-Igoe showed the form of a closed complex, disconnected from the urban context, gradually lost its self-sufficient function and caused various problems. Contrary to expectations, it did not show a high sales rate, and various public facilities, including green areas in the complex, turned into crime areas such as theft and arson. Eventually, the government decided to demolish Pruitt-Igoe, and in 1972, 20 years after its completion, it completely disappeared from the city. Since then, Pruitt-Igoe has been regarded as a representative example that the ideal of modernist architecture that was unrealistic. 'July 15, 1972 at 3:32 p.m.,' when the first phase of Pruitt-Igoe's demolition was finally completed, was also named 'The day modern architecture died' by Charles Jencks (Jencks 1984, 9).

As such, when the declaration of 'the death of modern architecture' was made on the other side of the earth, large-scale spread of the modern architecture 'Apatu' was taking place in Korea. Originally, Apartment emerged as housing for low-income families as a solution to housing problems caused by rapid urbanization, but in Korean society, they gradually developed in a different direction. Although Apatu, focusing on efficient supply, is uniform and boring form of space, it not only has become a symbol of luxury housing that everyone envies, but has already become a symbol of the most typical model of property growth and way to show the social status of owners.



Figure.4 The Pruitt-Igoe Myth
Grey Scape. 2022. <https://www.greyscape.com/modernism-was-framed-the-truth-about-pruitt-igoe/>



Figure.5 Advertisement of Apatu
<http://in-v.co.kr/View.aspx?No=919168>

Chapter 2 : Apatu for low-income group

2. 1 The origin of high-rise collective houses

Smaller collective housing were already built in the late ancient Roman Republic. Since then, as the population has become overcrowded and urbanized rapidly, it has been distributed as a rental house for the working class (Son 2000, 82-6). Therefore, the origin of Apatu can be said to be a four to five stories high-rise collective houses called 'Insula' in the ancient Roman period (Homo 1951). It has spread widely in urban areas in the form of rental collective housing with stores on the ground floor. The spread Insula was used as a residence for the proletariat, who accounted for most of the 800,000 total population, based on the capital city of Rome alone, but the living environment was very poor. This residential form has decreased sharply since the collapse of the Roman empire and began to appear again as urbanization progressed from the end of the Middle Ages.

The origin of the English word 'Apartment', which become the etymology of the word 'Apatu', can be found in the French word 'Appartement. (Seo 2007, 267)' Actually, the origin of collective housing called 'Aparment' was in France. This was a typical housing type in which the middle class and the working class live together in a building with a height of five or six floors, with shops on the first floor, high classes on the lower floors, and lower classes on the upper floors (Son 2000, 208). After such a period of introduction, apartments began to settle as residence for low-income laborers in Western society due to the influence of industrial names. As the number of people migrating from rural to urban areas rapidly increased due to the industrialization in 19th century, the density of urban population increased, and a serious social problem such as housing shortage began to appear.



Figure. 6 Insula
<https://www.khanacademy.org/humanities/ancient-art-civilizations/roman/x7e914f3b:beginner-guides-to-roman-architecture/a/roman-domestic-architecture-insula>

2.2 Theories to solve social problem

Due to this situation, apartments for low-income families began to be supplied from the end of the 19th century to the beginning of the 20th century, and at the same time, various theories and proposals were presented to solve poor and overcrowded urban and housing problems. Among them, it can be said that modernization movement of CIAM led by Le Corbusier and ‘Garden city movement’ of Ebenezer Howard deeply influenced the birth of Apatu.

British urban planner Ebenezer Howard argued constructing a self-sufficient small town with a population of about 30,000 with both urban and rural characteristics to improve the urban environment by publishing '*Garden Cities of To-morrow*' in 1898 (Howard 2006). After that, With the response of many people, the 'Garden City Association' was established in 1899, and in 1903, the first rural city, Letchworth, was built 35 miles away from London (Kim 2002, 65). Welwyn, another rural city in 1919, and new cities were built in various forms in Europe and the United States in 1945. However, the small-centered solution pursued by the garden city model had limitation in solving the problem of population concentration in large cities.

Meanwhile, Le Corbusier proposed new concepts of ‘Towers in the Park’ in a series of works that followed with ‘Contemporary City for Three Million Inhabitants’ in 1922. The city he proposed is composed of high-rise apartment houses connected vertically to sufficient green space. In addition, in 1928, the *Constrss Internationalux d’Architecture Modern* (CIAM) was formed by architects from each country who supported his claim, and in 1933, the Charter of Athens was announced with 95 articles. Le Corbusier selected housing, leisure, labor, and transportation as the four main functions of the city, and argued that the functional interrelationship between them was the main role of urban planning. The claims of CIAM have been applied to urban planning and residential area planning in each country since then (Kim 2002, 65).

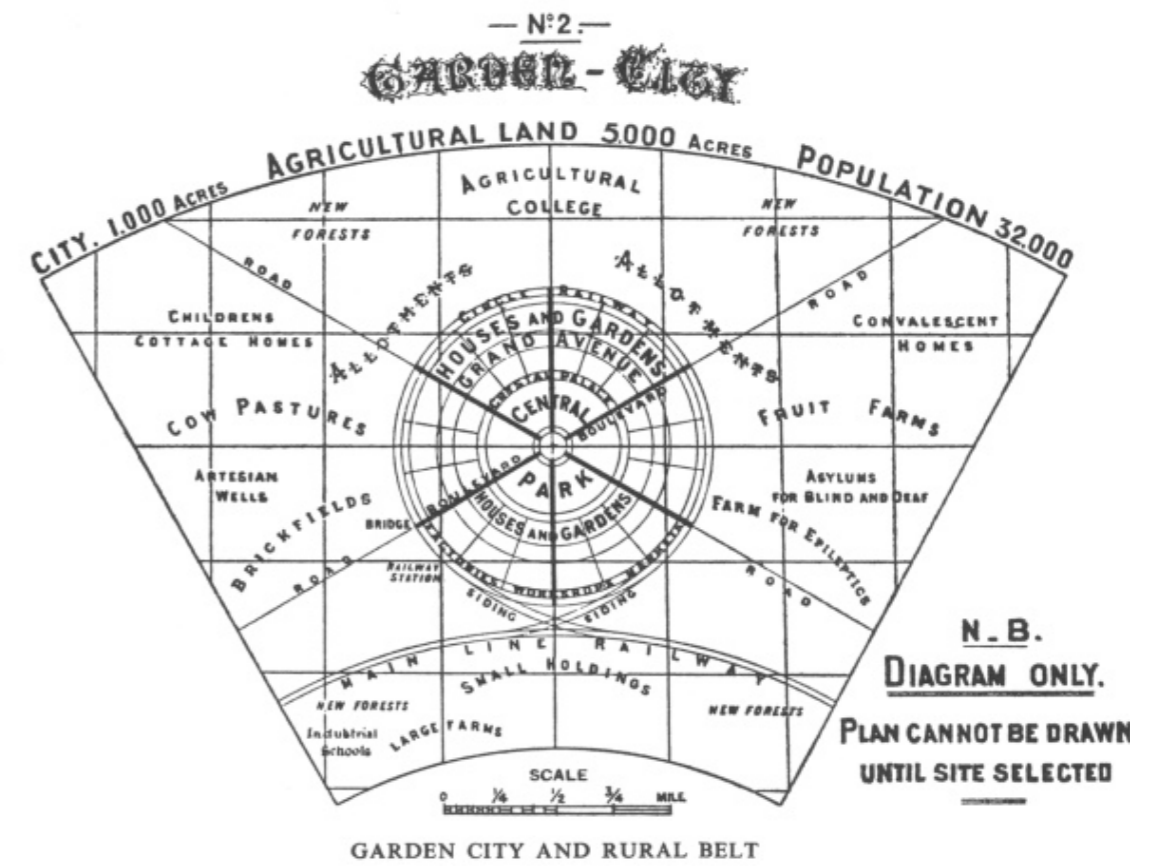


Figure. 7 The Town-Country Magnet
<https://journals.openedition.org/cve/3605>

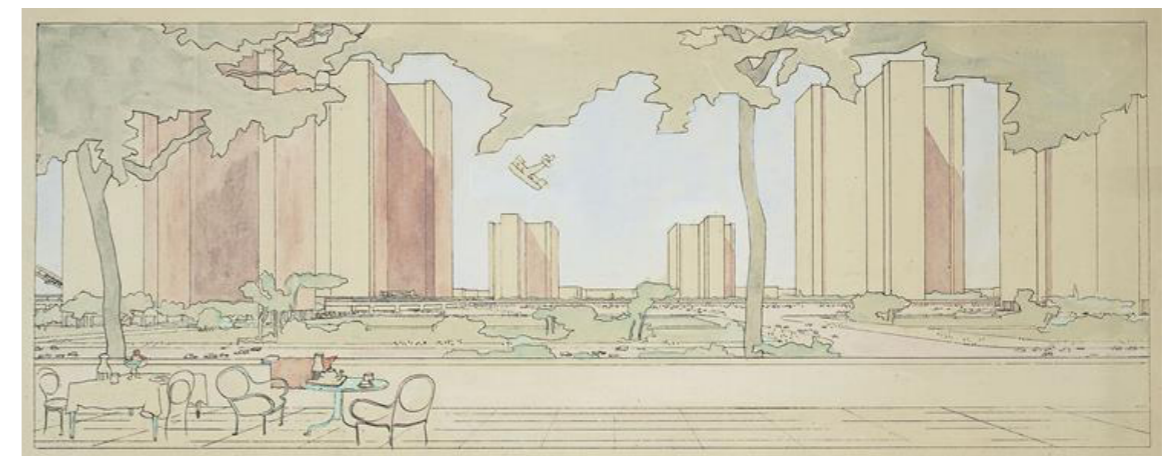


Figure. 8 Ville contemporaine de trois millions d'habitants
<http://www.fondationlecorbusier.fr/corbuweb/morpheus.aspx?sysId=13&IrisObjectId=6426&sysLanguage=en-en&itemPos=24&itemCount=215&sysParentId=65&sysParentName=>

2. 3 Beginning of Apatu (1930s ~ 1940s)

The first appearance of the word ‘Apatu (아파트)’ in Korea was in an article titled ‘同潤會의 아파트먼트’ in ‘朝鮮建築,’ the only architectural magazine during the Japanese colonial period (Shim 2002, 161). Also, the definition of an Apatu in ‘모던語點考’ of ‘신동아,’ a magazine introducing newly introduced foreign words, shows that the definition of it was accepted by people at the time as a form of ‘rental housing’.

“아파트 멘트(Apartment): English. It's a kind of hotel or boarding house. Since it is a house where several rooms are built and rented in a building, it is also the most developed in the United States as a product of a modern city. Sometimes couples live in there, but mainly single salarymen use. In Japan, it is simply abbreviated as Apatu.”

1933. “모던語點考.” 新東亞 通卷, no. 18 (May): 19

Since 1930, the construction of buildings named Apatu began in earnest, and Mikuni Apatu (1930) and Choongjeong Apatu (1930), who were first used the name Apatu, are representative examples, and most of them were built through Japanese capital. However, Apatu at that time were mainly Japanese-style residential structures only for Japanese living in Korea. Moreover, in 1940, the shortage of housing material was serious due to a series of wars, so there was a limit to the direct or indirect experience of Apatu for most Korean (Jung 2015, 42).

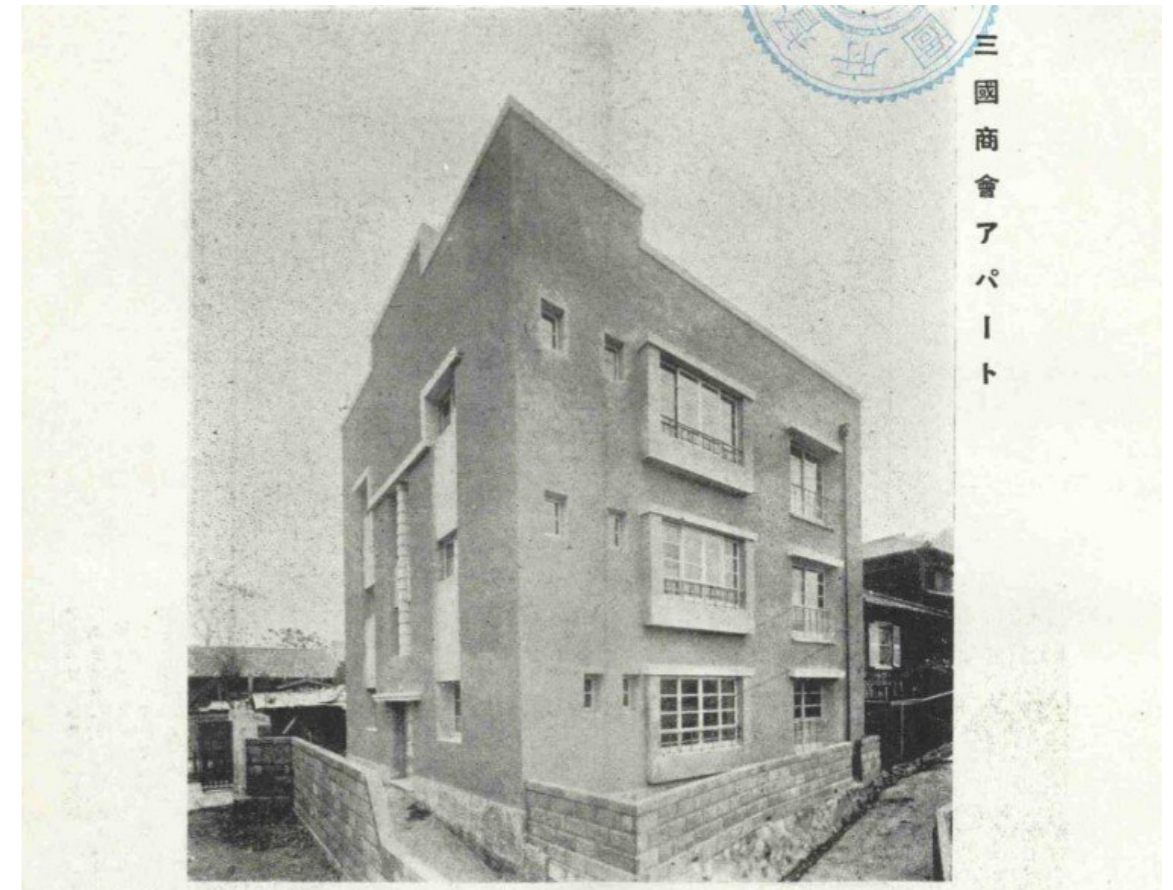


Figure. 9 Mikuni Apatu
<https://www.fmkorea.com/best/4314548022>



Figure. 10 Choongjeong Apatu
<https://namu.wiki/w/충정아파트>

2. 4 Apatu after the Korean War (1950s)

Since then, in Korean society, which experienced historical events such as liberation from Japan and the Korean War, the type of Apatu has reappeared through the construction of Haengcheon Apatu (1956), Jongam Apatu (1958), and Gaemyeong Apatu (1959). Haengcheon Apatu, the first built project since liberation, was constructed by the Korea-U.S. Foundation, one of the U.S. aid agencies after the Korean War. It consists of three buildings with three stories and can accommodate a total of 48 households. Jongam Apatu, built two years later, is the first apartment constructed with domestic capital, and it is significant in that it open the trend of western-style collective housing with 152 units in three buildings with four to five floors. The project gained popularity, with the then president attending the completion ceremony. In addition, it is meaningful that it is the first apartment to open the era of Western-style common housing in that it introduced a flush toilet for the first time in Korea (Jeon 2008, 201).



Figure. 11 Haengcheon Apatu
https://www.wikiwand.com/ko/대한민국_아파트의_역사



Figure. 12 Jongam Apatu
https://www.wikiwand.com/ko/대한민국_아파트의_역사

2. 5 Small scale Apatu (1960s)

Looking at the 217 Apatu project entities built from 1960 to 1973, it can be assumed that many apartments from the 1960s were mainly built by individuals and small enterprise, with 9% of the Korea National Housing Corporation, 24% of other public institutions and local governments, and 67% of the private sector (Park 2004. 27-9). From this, it can be assumed that many apartments until the 60s were built mainly by individuals and small businesses.

Small-scale Apatu built at that time were not significantly different from the existing urban structure and naturally assimilated because they were built using existing limited land without the national development of large-scale housing sites. Representative examples of such small block-type apartments include Dongdaemun Apatu (1966), Wonil Apatu (1970), and Ahyeon Apatu (1970). These were built for around thirty units to live in a single six-story residential building, and an atrium for the community is formed in the center of the building.

However, as urbanization progressed in Korea, these small Apatu gradually lost their influence. For this type to spread widely, there was a limitation of a single attempt of minority capital, and at the same time, there was a disadvantage in that it was structurally vulnerable because most of them were built as attributes by poor technology of small enterprise (Jeon 2010, 268-71). Despite some advantages, the perception that it is a housing in a poor environment that is uncomfortable to live in has been further highlighted, gradually moving away from public interest.



Figure. 13 Dongdaemun Apatu
<https://museum.seoul.go.kr/archive/archiveView.do?type=A&type2=area&arcvGroupNo=342&lowerArcvGroupNo=3045&arcvMetaSeq=1310&arcvNo=2260>



Figure. 14 Wonil Apatu
<https://taekle.blogspot.com/2018/12/wonil-apartment-house.html>

2. 6 Apatu as a means for modernization (1960s)

Complex-type apartments, a representative cityscape of modern Korean cities, also began to appear in earnest around the same time. Most of them were constructed by the government, and the Korea National Housing Corporation played a major role in the center. Mapo Apatu, the first complex-type apartment in Korea, was zealously pushed forward by the Korea National Housing Corporation as part of a housing project under the government's first five-year economic development plan (1962-1966).

This project was built on two separate occasions. First, in December 1962, six Y-shaped apartments were constructed with the size of 450 units, and in November 1964, I-shaped ones were completed with four buildings and 192 units. According to the initial plan, a ten-story building with elevator, flush toilet and central heating was decided to be built, but it was canceled due to the lack of overall resources such as poor electricity and water (the Korean National Housing Corporation 1992, 101). Eventually, it ended up with a six-story building without an elevator.

Although it remained as a result that fell short of the original plan, Mapo Apatu still had a relative advantage over other residences in terms of facilities and size. The installed flush toilets and standing kitchens symbolized the convenience of Western life, and the separate playground and wide lawn landscape in the complex were enough to attract people's attention. In addition, the unique form lined up in a Y shape was suitable for symbolizing new housing prototype (Jeon 2010, 260). Mapo Apatu was greatly influenced by the modern architecture movement described previously, which can be confirmed through an article by Korean architect Sacheon Hong, who was an official of the Korea National Housing Corporation at the time of the construction of Mapo Apatu in 1962.

"[...] This three-dimensionalization of the city will require ultra-high floors in the city center, 'Apatu' with about six stories around it, and three stories in the suburbs of Bulgwang-dong and Suyu-dong, and single-story houses should be avoided with government loans. In 1952, France built a 17-story 'Apatu' with a total area of 15,000 pyeong and 337 households in Marseille, which would require about 100 times the land of 'Apatu' if the same number of houses were built as detached houses. The audacity of 'Apatu' is not that it has put a large population of 1,600 into one house, but that it has planned a whole 'community center' in the building, from the market to kindergarten. It was built in the suburbs, not in the downtown area of 'Marseille'.

[.....]

By building 'Apatu' in the suburbs, you won't have your own garden, but you will be able to share a larger and better one. It will be acceptable to see the good environment of Mapo 'Apatu'. In addition, improved facilities such as hot water, heating, and flush toilets are impossible because they are expensive for detached houses. [...] By making it high-rise in the suburbs with 'Apatu,' you will be able to save land and live in a good environment and improved facilities."

(Hong 1964, 10)



Figure. 15 Mapo Apatu
<https://museum.seoul.go.kr/archive/archiveView.do?type=A&type2=area&arcvGroupNo=4230&lowerArcvGroupNo=4232&arcvMetaSeq=36015&arcvNo=98881>



Figure. 16 Interior of Mapo Apatu
https://biz.chosun.com/real_estate/real_estate_general/2022/03/18/UAFE47GMLFCANDGFDD3NEHMRMM/

In this article, Sacheon Hong argues for urban high-rise to solve the traffic problems and housing shortage caused by urban concentration of population. It was to represent the Korea National Housing Corporation's plan to solve the Korean housing problem through Apatu construction for the purpose of efficient use of space by actively advocating the introduction of Le Corbusier's argument, 'Towers in the Park.'

The Korean National Housing Corporation's policy illustrates the thoughts of ruling class at the time. The Junghee Park regime that took power through a military coup in 1961 thought of the Apatu as a important means for the Korean industrialization and modernization at the time, which can be clearly seen in President Junghee Park's speech at the Mapo Apatu completion ceremony.

"Today, I sincerely congratulate the development of the capital Seoul and the future of the country's architectural industry at the completion ceremony of Mapo Apartment, which is magnificent and equipped with all the latest facilities.

The May 16 Revolution of the City had its ultimate purpose in that we Koreans would live well like the people of advanced countries. Therefore, we have established a five-year economic development plan to get away from poverty as soon as possible, to wear well, eat well, and live well in a good house, and are currently in the process of success.

However, the public knows that the government's measures cannot achieve the desired results without the cooperation of the people, and that there have been too many economic and irrational aspects of food, clothing, and shelter life in Korea. Here, there is Soi, who desperately needs a living revolution, and I think it is of great significance that the completion of Mapo Apartment, which is fully equipped with modern facilities, can serve as an opportunity to bring about this living revolution.

In other words, there is no doubt that the government will achieve the improvement of people's lives and culture by taking a modern collective common lifestyle, breaking away from the outdated and feudal lifestyle of Korea.

Moreover, since excessive urban concentration of the population leads to a housing shortage and a rise in housing prices, it is absolutely necessary to build such high-rise apartment houses that use space in the future to solve this trend.

We hope that this apartment, which was built in the spotlight at the request of the times, will become a symbol of a revolutionary country by achieving the paradise of the residents, and we would like to express our appreciation for the hard work of the former president and technicians. Thank you."

(the Korean National Housing Corporation 1979, 237-238)

In his speech, President Park judged existing Korean living style as 'too uneconomical and unreasonable' and evaluated the completion of Mapo Apatu as opportunity for the 'life style revolution.' At this point, apartments in Korea are finally given a different role than in Europe, where apartments were first born. While European apartment complexes were mainly provided as housing measures for low-income families, Korean apartment complexes were presented as a medium to lead fundamental lifestyle changes beyond simply solving the housing shortage.



Figure. 17 Poster of President Candidate Park Chung-hee
https://biz.chosun.com/real_estate/real_estate_general/2022/03/18/UAFE47GMLFCANDGFDD3NEHMRMM/



Figure. 18 Completion Ceremony of Mapo Apatu
<https://theme.archives.go.kr/viewer/common/archWebViewer.do?singleData=Y&archiveEventId=0014519141&themeFlag=Y&singleData=Y>

2. 7 limitation of Apatu for low-income class (1960s)

Although Mapo Apatu was recognized by the public as a successful project for middle class, it was difficult to spread as a general residential type. This is because housing problem of low-income people was still very serious in Seoul. Even though the migrating population to Seoul from 1950 increased rapidly, the number of houses was absolutely insufficient. As a result, hundreds of thousand of people lived in unauthorized illegal building. So, the government begun to carry out a large-scale apartment supply project named 'Citizen Apatu' in order to solve two problems: housing shortage and illegal building.

The mayor of Seoul at the time proposed a somewhat impractical plan to build a total of 2000 Citizen Apatu from 1969 to 1971, which is reflecting social atmosphere at the time dominated by the speed and quantity-oriented urban solution (Jeon 2008, 203). However, such Citizen Apatu project began to reveal problems immediately after only a year of implementation. Most of Citizen Apatu were constructed on the middle of the mountain for reasons such as low land price. In the process, not only did not accurately conduct geological tests for construction at the time, but poor construction was carried out due to low construction costs. As a results, a major accident, which one of Citizen Apatu built on the Wawoo mountain collapsed and 33 people died, occurred in 1970. In fact, right after the collapse of Wawoo Apatu, the Seoul government urgently organized a 'Citizen Apatu Safety Test Team' to examine the safety of 405 Citizen Apatu, and it was concluded that 349 buildings, which account for 86.2%, need to be repaired (Kwon 2012, 174). Eventually, Seoul mayor Hyunok Kim who was responsible for the incident, was replaced, and the Citizen Apatu project was completely canceled.

This incident, result of Korean modernization represented by compression and rapid growth, served as an opportunity to give the perception that Apatu are cheap and dangerous architecture. As a result, the government began to judge that Apatu should not be constructed for the low-income class but for middle class by improving building quality with a higher price. For the government, the industry itself of Aatu was only important. After the collapse of low-income class apartment, they did not seek new housing alternative for them, but simply changed the target to the middle class in order to continue the Apatu industry. In other words, it can be said that the government used Apatu as a means to develop the city, not as a means to solve the city problems. Therefore, at this point, apartment in Korea have completely deviated from the modernist idea of high-rise housing for low-income families, and eventually become luxury houses that everyone envies.



Figure. 19 Citizen Apatu
http://photoarchives.seoul.go.kr/photo/view/116020#1_116020



Figure. 20 Collapse of Wawoo Apatu
<http://histories.kr/bin/bbs/bbs.htm?table=210517213715&st=view&id=26&fpag=&spage=§or=D&menu=on>

Chapter 3 : Apatu for middle class

3. 1 Apatu Danji for middle class (1970s)

The early 1970s was a period that brought a significant turning point in the history of Korean Apatu. This is because after recognizing the limitations of Apatu for low-income families through the Wawoo Apatu collapse, the Korean Apatu introduced the concept of ‘Danji’ to target the middle class.

It is necessary to know the origin of ‘Danji,’ before entering the research. The word ‘Danji’ is an expression derived from Japanese and refers to a case where buildings of similar programs gather and form a group (Park 2013, 133). The concept of ‘Danji’ that first appeared in Japanese society in the 1950s was accepted as a symbol of a modern housing model. These Japanese cases seem to have had a certain effect on Korean Apatu Danji. For example, Dongwoon Jang (1992), who served as president of the Korea National Housing Corporation, said in a memoir that he decided to try to build a luxury Apatu Danji in Korea similar to the Japanese one that he saw when he visited Japan in the late 1960s.

In addition, The concept of ‘Neighborhood Unit’ originated in the United States provided a more direct inspiration to the concept of Danji. The term ‘neighborhood unit’ is a concept of residential site planning proposed by American urban planner Clarence Perry in 1929, and refers to a physical environment created to promote convenience and comfort of life and social exchange among residents within a walking distance (Kim 2006, 111). The neighborhood unit, which means a district of a city surrounded by roads, contains all the facilities that a community needs.

What is interesting is although the concept of Danji originated in Japan, its popularity in Japan quickly disappeared from the 1970s (Park 2012, 230), while the era of Apatu Danji dominating the city has opened in Korea. At the forefront of the ‘era of Apatu Danji’ were Hangang Mansion Apatu (1970), Yeouido Apatu (1971), and Banpo Apatu (1972) built by the Korea National Housing Corporation. Hangang Mansion Apatu, the first apartment built aiming for a ‘luxury Apatu’, has become a standard model for the construction and sale method of Apatu Danji.

First of all, it was the first case in Korea to introduce an advertising method called ‘model house.’ Before the construction began, the Korea National Housing Corporation actually created a unit called ‘Model House’ and introduced it to the public in advance (the Korea National Housing Corporation 1992, 118-120). This method of securing construction funds through model houses is still a general practice of Apatu construction.

In addition, the Hangang Mansion Apatu is the first case in which the ‘neighborhood unit’ is applied in earnest in terms of its design method. However, this concept caused a ‘closed characteristic of Danji’ which is different from the original intention. A large-scale Danji created by the ‘Neighborhood Unit’ was an independent living environment and tried to pursue maximum convenience in it. However, as a result, public facilities such as schools and shops were placed in the center of the Danji, and the outskirts of it were surrounded by walls and recognized as exclusive and closed spaces (Jeon 2008, 221). This method became the most popular Apatu Danji principle in the 1970s and 1980s, resulting in a so-called ‘Gated Community’ situation that made considerable discord with existing urban organizations.



Figure. 21 Hangang Mansion Apatu
<https://m.blog.naver.com/asano15/221885806928>



Figure. 22 Banpo Apatu
<https://m.khan.co.kr/local/Seoul/article/202107182108025>

3. 2 The spread of Apatu Danji (1970s)

During this period, the population problem caused by urbanization was still serious, so the government has struggled to solve the housing problem for the middle class since the 1960s. A policy was established to disperse the population concentrated in the northern part of Seoul to the south, and this development was promoted by providing various preferences to the southern Seoul, especially Jamsil was the main target area. For example, some strategies have been implemented, such as providing tax benefits in the south, expanding infrastructure connecting the north and south, and relocating prestigious middle and high schools in northern Seoul to the south (Jeon 2008, 212).

Along with the development of such urban infrastructure, the government implemented the development of a large-scale Apatu called ‘Jamsil Daedanji Planning’ (1975-1977) based on the previous Apatu Danji construction experience. In the process, 12,000 hectares were designated as Apatu development zones in Jamsil (Jang 1994, 165-6), and in particular, under the slogan “Housing Construction 180-day Operation” in the early stages of the project, 11,800 units were built in just six months (Jeon 2010, 246). This was the result of reflecting the atmosphere at the time when speed and supply were the top goals without considering other social and cultural conditions.



Figure. 23 Jamsil Area
<https://www.newspost.kr/news/articleView.html?idxno=93457>

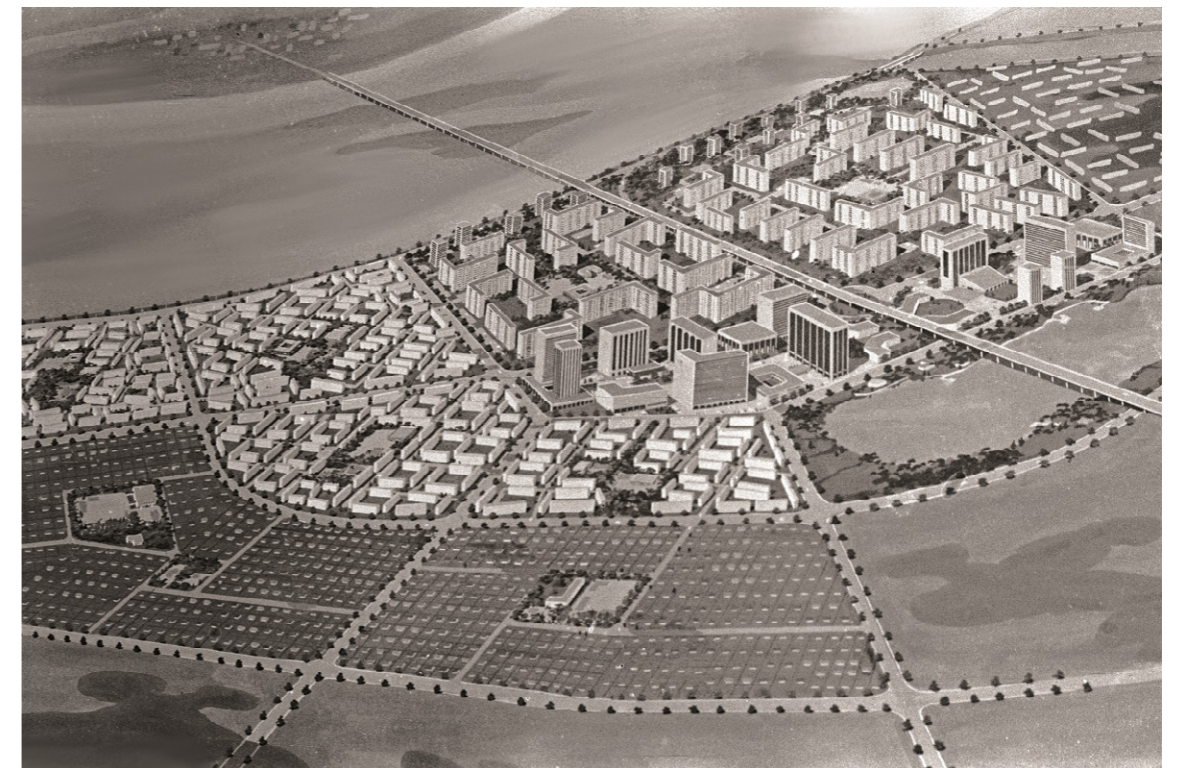


Figure. 24 Jamsil Daedanji Planning
<https://www.newspost.kr/news/articleView.html?idxno=93457>

3. 3 Apatu Danji by private construction companies (1970s)

Meanwhile, the 1970s was a time when not only the Korea National Housing Corporation but also large private construction companies began to develop Apatu Danji in earnest. Especially, Hyundai Construction, which was rapidly growing at the time, opened the era of luxury apartments by constructing Apgujeong Hyundai Apatu, which consists of units of at least 105 m² and up to 200 m² in the southern part of Seoul from 1975. At that time, it was recognized as a ‘luxury apartment’ in Korea and still maintains tremendous real estate value so far (Park 2011, 63).

	1970	1975	1980	1985	1990	1995	2000
Detached house	4,154,902 (95.30)	4,381,772 (92.56)	4,652,127 (87.46)	4,719,464 (77.31)	4,726,933 (66.02)	4,337,105 (47.12)	4,069,463 (37.13)
Apatu	33,372 (0.77)	89,248 (1.89)	373,710 (7.03)	821,606 (13.46)	1,628,117 (22.74)	3,454,508 (37.53)	5,231,319 (47.73)
Town house	146,220 (3.35)	164,718 (3.48)	161,795 (3.04)	349,985 (5.73)	602,855 (8.42)	1,070,528 (11.63)	1,265,989 (11.55)
Non-residential	25,468 (0.58)	98,431 (2.08)	131,248 (2.47)	213,155 (3.49)	202,481 (2.83)	342,788 (3.72)	392,571 (3.58)
Total	4,433,962	4,816,413	5,434,176	6,271,265	7,357,287	9,570,395	11,472,401

Table. 1 Status of Housing Type in Korea (the number of units (%))
(Yoon 2002, 18)

Even though the Apatu Danji emerged as the most notable residential style during this period, absolute value of Apatu residents was still small compared to other types of housing. According to the table, in 1980 compared to the 1970s, the number of households living in Apatu increased more than 10 times, but still only about 7%. However, it increased to 22.7% in 1990, and again increased to 5.23 million households in 2000, accounting for nearly half of all housing types. Above all, the political background of the time played a role in spreading Korean Apatu Danji, which began to take root in earnest in the 1970s, on a huge scale through the 1980s and 1990s.



Figure. 25 Apgujeon Hyundai Apatu 1975
<https://www.newspost.kr/news/articleView.html?idxno=92465>



Figure. 26 Apgujeon Hyundai Apatu 2021
<https://www.hankookilbo.com/News/Read/A2021041811360005679>

3. 4 Apatu Danji by domestic architect (1980s)

The Doohwan Jeon regime, which took power in military coup in 1979, establishes a large-scale long-term housing construction plan as one of the ways soothe public sentiment during this political and social chaos. While still suffering from serious housing shortages, the new regime tried to solve the housing shortage problem and social stability through a plan called “construction of 5 million units of Apatu within 10 years” in 1980 (Lim 2005, 101). Although it is practically difficult to build a huge amount of Apatu in 10 years, the government’s policy promotion, which was familiar with the construction experience of the 1970s, resulted in a huge amount of Apatu in the outskirts of Seoul.

Mokdong shinshigaji Apatu (1983), a representative Apatu Danji built in the early 1980s, was carried out through systematic stages and processes such as master plan competition, and designed by Soogeun Kim, the most famous architect in Korea at the time. In addition, Another famous domestic architect Sungryong Cho and Gyuseung Woo designed Asia Sunsoocheon Apatu (1986) and Olympic Sunsoocheon Apatu (1986), respectively. Each Apatu showed a different appearance by introducing a new Danji designing strategies. For instance, Asia Sunsoocheon Apatu, which consists of 18 buildings and 1356 units, formed a distinctive skyline through height variation of each building, and implemented the concept of a ‘small village’ by arranging three Apatu in a C shape (Jeon 2010, 354).

Nevertheless, these attempts were still insufficient. In the political and social situations at the time when the atmosphere of “speed challenge”, which was not much different from the 1970s, many Apatu were still forced to follow the conventional form. The previous cases brought about remarkable changes in terms of the residential environment in the Danji, but it had limited characteristics that only for middle-class residents living there can use.



Figure. 27 Mokdong Shinshigaji Apatu
<https://museum.seoul.go.kr/archive/archiveView.do?type=B&arcvGroupNo=4283&lowerArcvGroupNo=4285&arcvMetaSeq=37775&arcvNo=101586>



Figure. 28 Asia Sunsoocheon Apatu
<https://museum.seoul.go.kr/archive/archiveView.do?type=B&arcvGroupNo=4283&lowerArcvGroupNo=4288&arcvMetaSeq=37663&arcvNo=101698>

3. 5 Birth of five satellite cities (1990s)

Although the housing supply policy through large-scale Apatu Danji construction continued in the 1980s, the supply was still insufficient compared to the demand for housing in Seoul. In particular, the intensifying population concentration in Seoul and the economic boom in the 1980s also caused housing prices to rise. In order to solve the urban problem of Seoul related to such population, in 1988, the new regime planned to promote the construction of large-scale Apatu Danji in new satellite cities under the name of a 'new city.'

The new policy, 'two million unit construction plan,' aimed to develop five cities adjacent to Seoul: Bundang, Ilsan, Joongdong, Pyeongchon, and Sanbon within four years. In the process, Korea National Housing Corporation and private construction companies began to build Apatu Danji. As a result, based on previous construction experiences, two million units were built in those five cities in 1991, which was one year earlier than the government's target period (Lim 2005, 157).

However, there were several the side effects result from the construction of a large-scale new city in short period. For example, due to the boom in the construction economy, construction wages increased and suffered from the shortage of labor (Lim 2005, 157). In addition, poor construction due to the lack of construction materials emerged as a social issue, and there was the acceleration of population inflow into the metropolitan area due to popularity of five new cities.



Figure. 29 Boondang New City
<https://namu.wiki/w/분당신도시?rev=417>

Chapter 4 : Apatu as a product

4. 1 High-rise premium Apatu (2000s)

The mass-production system of Apatu, which was established through the period of the ‘two million unit construction plan’ in the early 1990s, continued after that, leading to 600,000 units produced annually (Yoon 2002, 17). However, apartments built during this period were mainly expensive and large Apatu. Due to this reason, there was not enough demand compared to excessive supply, so unsold units continued to increase. In addition, the outbreak of the financial crisis (IMF bailout) that hit South Korea in late 1997 pushed most construction companies into a bigger crisis. In order to revitalize the construction industry in the swamp of Korea’s enormous economic downturn, the government has begun to grant permission for the new Apatu prototype combined vertically between housing and commercial program.

The existing Apatu Danji has been composed of Apatu buildings for only residential program, and other separated small building for commercial and cultural program. All facilities inside the Danji were only available to residents who live there. However, large construction companies introduced new business items by using the revised law, which each programs are vertically stacked with large cultural and commercial facilities in the lower floors and premium housing in the upper floors. Starting with Daewoo Construction’s 41-story Trump World (1999), mix-used Apatu built in the early 2000s, including Samsung’s Tower Palace (2002) and Hyundai’s Hyperion (2003), began to emerge with the concept of various high-tech facilities and amenities. The success of these mix-used high-rise Apatu has accelerated the trend of ‘premium’ of Apatu in earnest, and this was the beginning of the era of ‘Apatu brand’.



Figure. 30 Tower Palace
<https://namu.wiki/w/타워팰리스>



Figure. 31 Hyperion
[Fhttp://www.mokdong.com/apt/m1apt/hyperion1/hyperion1.htm](http://www.mokdong.com/apt/m1apt/hyperion1/hyperion1.htm)

4. 2 Birth of Apatu brand (2000s)

The birth of an Apatu brand is a characteristic phenomenon that explains various changes that Korean housing have experienced in several political, social, economic, and cultural contexts. When it comes to the name of Apatu in the 1960s and 1970s, the area name was simply used as the name of the Apatu (Mapo Apatu, Banpo Apatu). Since there were not many Apatu in each area, their unique names were not necessary. Since then, the name of the company has been used since the mid-1970s, when the participation of private construction companies increased (Hyundai Apatu, Daewoo Apatu).

Meanwhile, each construction company began to create their own brand name and to use as Apatu names since 1998 when the Apatu market was transformed into a perfect competition system. Previously, there have been government regulations on Apatu prices with the aim of stabilizing real estate prices, but the new government, which was replaced in 1998, has promoted policies reducing the government intervention to revive the economy by revitalizing the real estate market (Shin 2000, 21). Accordingly, construction companies were able to freely set Apatu sales prices, and after that, fierce competition for survival between each construction company began. Each construction company set Apatu as one product and began to create its own brand, and each brand try to find their identities. For example, around 2002, each company invested a large budget to hire the best star entertainers to launch TV and newspaper advertisements, and in fact, most of the construction companies used their budgets mainly in brand development and advertising for marketing, not for architectural quality improvement. The Apatu brand names and logos of major construction companies are as below.



Figure. 33 Apatu brand logo
<https://www.raemian.co.kr>
<https://www.i-park.com>
<https://www.xi.co.kr>
<http://prugio.com>
<https://www.elife.co.kr>



Figure. 32 Apatu advertisement
<https://www.m-i.kr/news/articleView.html?idxno=249198>



Figure. 34 Brand logo of Raemian and Xi on the Apatu Facade
<https://www.etoday.co.kr/news/view/463811>

As such, architecture was branded, commercialized, and luxury as a product, stimulated the public’s envy. Moreover, urban inequality became widespread between the owner and non-owner. As the government’s intervention was reduced and the apartment market changed to a private-led autonomous market, Apatu prices soared in the early and mid-2000s. This is because as a means of competition between companies, the cost of using more advanced building materials and marketing investment than necessary has been passed on to consumers several times (Jeon 2008, 302).

Area	Apatu	January 2000	July 2005	Rate of rise
South Seoul	Major brand	1,147	2,845	148%
	etc	1,013	2,550	152%
	Price difference	134	289	216%
North Seoul	Major brand	543	1,182	118%
	etc	535	924	73%
	Price difference	8	257	3,213%

Table. 2 Changes in price (10,000 KRW) per Pyeong (3.3㎡)
(Lee 2012, 2)

According to the table, apartment prices doubled in just five years from 2000 to 2005, and the increase was severe in the southern part of Seoul. Also noteworthy in this table is the difference in price between the five major brand (Raemian, E-Pyeonhansaesang, i-Park, Xi, and Prugio) and other Apatu. During this period, apartment prices themselves rose significantly, but this mainly means that the trend toward Apatu of major brands has intensified. Therefore, old Apatu used to change the name to the famous brand one to increase the real estate value and even to demolish the existing Apatu and rebuilding them into famous brands. Through these phenomena, it can be seen that people have entered the so-called ‘brand Apatu era’.



Figure. 35 Brand logo of Prugio on the Apatu Facade
image_readtop_2020_602265_15919211954237959.jpg



Figure. 36 Brand logo of iPark on the Apatu Facade
<https://namu.wiki/w/서신%20아이파크%20e편한세상?rev=163>

4. 3 Participation of star architects (2010s)

Apatu as a brand product have already been recognized as the most effective method of property growth in Korea. For the middle and upper classes, sometimes Apatu were considered currency for transactions, not for living. Most people used the extra funds generated in the past economic development process to purchase Apatu, and since then, the merchantability of buying and selling it has begun to be highly valued (Jung 2015, 78). In fact, in the 1970s, margin of Apatu amounted to 5-6 times, and even after the 1980s, at least twice as much profit could be expected (Special Planning Team for State Affairs Briefing 2007, 67). Since then, people have all jumped into purchasing Apatu. The surge in speculative demand for Apatu has also contributed to the increase in its supply and the commercialization.

Previously, huge brand logo was attached to the Apatu's facade, but in the 2010s, other strategies collaborating with famous international architect began to emerge as a way to increase the product value of Apatu. In this process, since Apatu must serve as a standardized measure of real estate value in Korean society, standardized areas and floor plans that have not changed for decades were essential. Apatu with experimental spatial composition that deviate too much from the standard have had problems such as losing their value as real estate or not being easily traded in the market. Therefore, no matter how international star architects participate in the project, the only opportunities given were facade and landscape design. For instance, there are some Apatu which are designed by UN Studio. The Suwon i-Park City (2011) project, which consists of 88 Apatu, added an additional layer to the facade, and a Dutch landscape architect named Lodewijk Baljon also participated in the landscape design. In addition, the Wolbae i-Park (2016) project of UN Studio, which consists of 19 Apatu, applied a simple elevation pattern design through painting. Moreover, the Haeundae i-Park (2011) project became a city landmark with Daniel Libeskind's participation. In most cases, construction companies need famous architect design itself, but sometimes the fact that star architect participated in the project was even more important for product marketing.



Figure. 37 Wolbae iPark
<https://www.unstudio.com/en/page/11763/daegu-wolbae-ipark>



Figure. 38 iPark city
<https://hdc-dvp.com/mobile/eng/company/masterpiece.do>

4. 4 'Model House' : Museum for Apatu (2010s)

There have also been other marketing strategies for effectively selling the Apatu. Once the design of the Apatu is done, one unit is actually made on a 1:1 scale and is displayed in the facility called the 'Model House'. This facilities play an important role in preparing the construction budget. Before the construction started, people contract Apatu at the model house in advance, and construction companies use this pre-sale money as construction funds. So they tended to pay great attention to making a model houses because the quality of them is directly related to Apatu sales. This is made of pop-up stores or permanent buildings near the site where apartments will be built or in urban areas with a large floating population. This way has been used since the 1970s. Recently, in the case of premium apartments, model houses were designed by famous domestic or international architects. For example, American architect Nader Tehrani's NADAAA designed Samsung Construction's Raemian Gallery (2012), Dutch architecture firm UN Studio designed Hyundai Construction's i-Park Model House (2009), and domestic architecture firm USD Space designed Daewoo Construction's PRUGIO Valley (2008).



Figure. 40 iPark Model House
<http://www.econovill.com/news/articleView.html?idxno=8744>



Figure. 39 Prugio Model House
<https://twitter.com/influxed/status/746117797831335936/photo/1>



Figure. 41 Raemian Model House
 taken by Yeonghwa Choe

4.5 Demolition and Reconstruction of Apatu (2020s)

Around same time, reconstruction projects also became popular with the public, which is demolishing aged Apatu decades later and constructing new one. There are several policies behind it. According to the Housing Construction Promotion Act introduced in 1987, more than twenty years old Apatu could be demolished and newly built if maintenance costs were excessive, or if the residential environment was poor and structurally safe. In addition, in March 1993, the relevant law was further expanded to the content that reconstruction would be allowed if it was evaluated as hindering urban aesthetics even if it is less than twenty years old (Choi 2004, 155).

Following several changes in regulations, significant deregulation for reconstruction, such as the floor area ratio incentive to boost the construction industry, was implemented after the IMF economic crisis. The reason for the government's deregulation is not only that there was no more land available for development as a housing site in the metropolitan area, but also that there was expectations for boosting the construction economy through reconstruction. As a result, low-rise and low-density Apatu Danji, which were old but in good location, received the spotlight and the Apatu reconstruction project increased rapidly. Using revised building legal restrictions such as a remarkably relaxed floor area ratio, Apatu that have been built for less than 20 to 30 years have been demolished, and new high-rise Apatu have been built by collecting additional tenants. Therefore, real estate prices of Apatu that are about to be reconstruction have risen significantly, because the margins that can be obtained by the reconstruction project itself were significant. The asset value of the entire Apatu increases by the number of households and areas increased through reconstruction, so the development profits generated by it can be shared by construction companies and reconstruction associations. Once Apatu reconstruction is confirmed, existing residents can expect guaranteed future profits, so Apatu Danji subject to reconstruction jumped in price just by the news of reconstruction (Jung 2015, 90). The quote below clearly shows the atmosphere of the time.

"A few days ago, I saw a strange scenery while passing by an apartment in Gangnam. At the entrance of the shabby Apatu complex, which is less suitable for the bustling Gangnam street, these placards were flying brightly in the autumn breeze.

"Congratulations, ○○ Apatu passed safety examination!! - 21st Century Residential Space, ○○○-

There was a congratulatory placard named after a construction company, on a tightly packed road, and looking casually at the bus window, and suddenly there was something strange.

"If you passed the safety diagnosis, you'd say safety has been proven, so is that something to celebrate? By the way, what's good about the construction company putting up a congratulatory placard in an apartment they didn't even build?"

Aha, come to think of it, it wasn't. The passing of the safety examination was not a pass, but a fail. In other words, it didn't mean that the apartment was proven safe, but that it was very unsafe, so it had to be demolished and rebuilt quickly. The reason why the congratulatory placard was attached to the entrance of the apartment, saying "pass" over the failure of the safety diagnosis, was that the apartment residents could finally sell the apartment at a high price by adding a reconstruction premium. And the construction company that was in charge of tearing it down and rebuilding it, and they were celebrating because they were making money by taking the job in the meantime..."

(Kim 2003, 52-4)



Figure. 42 Eunma Apatu
<https://www.hankyung.com/realestate/article/2020050417707>



Figure. 43 Eunma Apatu Proposal
<https://www.unstudio.com/en/page/11825/masterplan-eunma-housing-development>

As explained earlier, the brand strategy of companies is also essential for the reconstruction project. Similarly, reconstruction projects have often involved famous international architects such as UN Studio, SMDP, HKS, and Urban Agency.

With this logic, many Apatu already have been rebuilt, and there is even reconstructed Apatu Danji preparing for re-reconstruction. A representative example of this is Mapo Apatu, which is mentioned several times in this article. It had been the first complex-type Apatu built on a six-story scale in 1962 and was completely demolished 30 years later with approval for reconstruction. After that, it became Mapo Samsung Aptu which was the first reconstructed Apatu Danji in Korean history. In this project, Kiseok Park, president of the Korea National Housing Corporation, who built Mapo Apatu, also led the project again as chairman of Samsung Construction at the time of reconstruction in 1994. Mapo Samsung Apatu, which is already 28 years old at the moment, will be on the list of reconstruction Apatu again in two more years, and apartment residents are currently preparing to be reconstructed (Ko 2022).



Figure. 44 Mapo Apatu
https://biz.chosun.com/real_estate/real_estate_general/2022/03/18/UAFE47GMLFCANDGFDD3NEHMRMM/



Figure. 45 Mapo Samsung Apatu
https://biz.chosun.com/real_estate/real_estate_general/2022/03/18/UAFE47GMLFCANDGFDD3NEHMRMM/

Conclusion

the modernist architect's idea to solve the urban housing problem of low-income families through the efficient housing supply method of vertical housing completely disappeared in Korea. Although there have been efforts to actively introduce the ideal idea of such a high-rise house since the Korean War in the 1950s, it has been a failure, and it has been difficult to satisfy the government's hidden ambitions at that time. Later, from the 1960s, the perception that Apatu was a modernized and luxurious lifestyle spread, and Apatu was supplied in large quantities for the middle class. Through this, the regime not only gained tremendous public sentiment, but also was able to actively use Apatu as a political means for long-term power. It was used as a means for rapid urbanization of Seoul, not solving the problem of housing shortage by using the characteristics of supply efficiency that can be mass-produced within a short period of time. Through this, Seoul's urbanization accelerated, and private construction companies began to participate in the Apatu market for more supply. In the meantime, the apartment industry itself has become a major means of revitalizing the Korean economy, and a small number of Apatu builders have not only grown rapidly due to the government's policy easing, but at the same time, fierce competition between them began. In the 2000s, Apatu was recognized as a brand product focused on capitalist values beyond its meaning as a minimum space for humans to reside. Since then, the construction company has made various efforts to further enhance the brand value of Apatu and sell it to the public at a high price, such as requesting a design from an internationally famous architect. At the same time, consumers are all bent on buying the new Apatu through huge competition rates, aiming for huge real estate value by purchasing such products. In other words, apartments have become more and more a symbol of desire, and apartment prices are soaring as they are considered a major investment target for property growth. In addition, construction companies with large capital capture this social phenomenon and supply apartments indiscriminately.

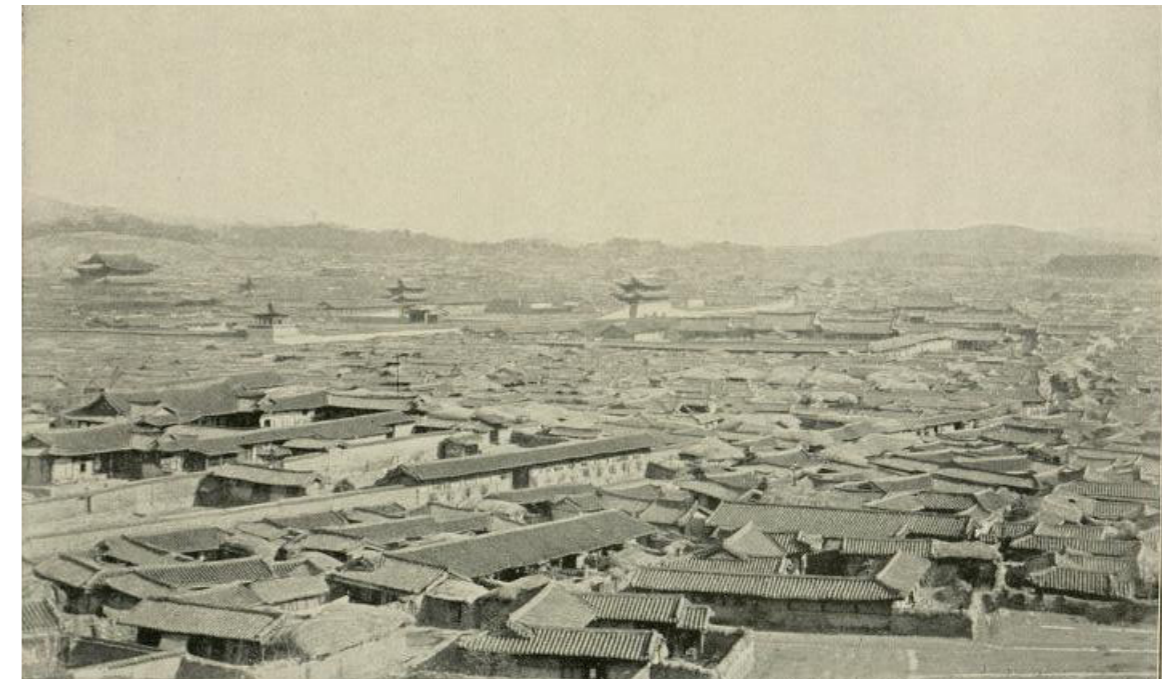


Figure. 46 A view of Seoul
<https://archive.org/stream/koreaherneighbor00bird#page/428/mode/2up>



Figure. 47 A view of Seoul
<http://www.vop.co.kr/A00001257519.html>

In order to break up this dystopian cycle, a new method of housing supply will be needed. The main factor of the problem of commercialization of housing is the top-down housing supply led by large construction companies. In the minds of the public who have lived in this history, the notion that 'home' is simply 'consumption' or 'investment' dominates. Therefore, it will be necessary to change the perception to 'a space to create' or 'a space that reflects an individual's lifestyle', not the same design house provided by a major construction company. In order to solve these problems, the apartment construction method should be democratized. A new type of housing supply should be made, not a one-way top-down housing supply led by government or large construction companies. They should not make and sell whole apartments like products, but build vertical infrastructure such as structure, circulation, and MEP, so that tenants can build their own homes. In other words, in overcrowded cities, construction companies or governments provide only vertical sites to increase the construction area. And consumers buy certain portion of the vertical site, making their own space and live there forever, for instance Hawkins' Gantry or James Wines' high-rise of Homes. If this new residential culture is settled, a new future can be expected away from the capitalist problems of Seoul, which have been accelerated from the past modernization process to the present.



Figure. 48 Gantry
<https://thetramperry.com/2018/12/17/applications-open-desk-studio-space-tramperry-gantry/>

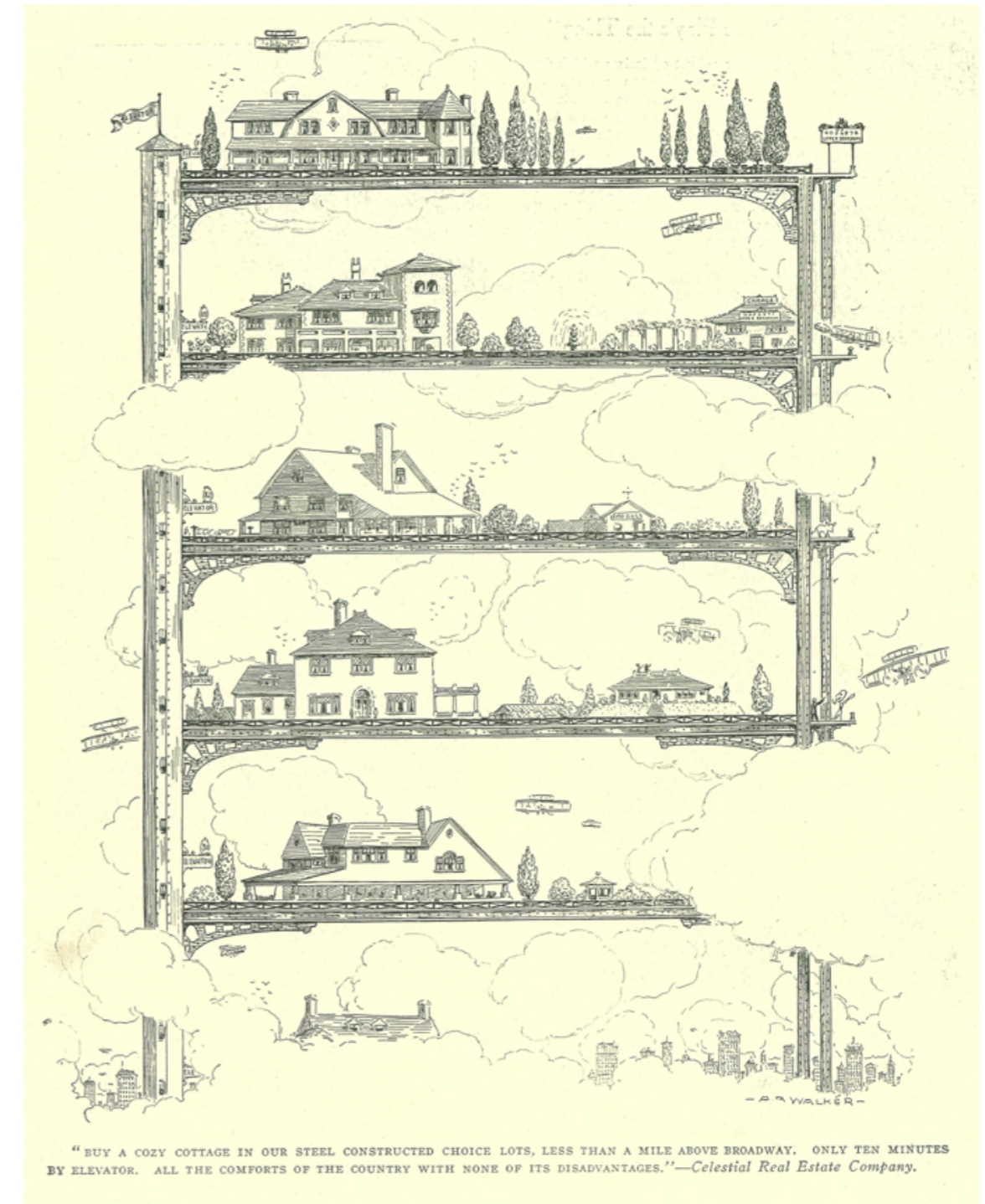


Figure. 49 Highrise of homes
<http://hiddenarchitecture.net/highrise-of-homes/>

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