

01. White Cube

This site is located in a high density multi-family housing area covered with small-sized lots, and the spaces between the buildings are very narrow. The design focuses on solving living environment issues such as privacy and natural lighting problems. The sky balcony system is created to draw reflected light inside and, at the same time, to accommodate a large window. The floorplan comprises aptly divided public and private areas. One thing that leaves much to be desired is the lack of space for the carpark and green area. If the development could be expanded by combining individual lots, then a pedestrian access, playground and green area could be constructed on the ground level instead of the carpark. This would transform the ground area into a social space, and would create a healthier pedestrian environment.

02. Alley House

When we only see construction from the angle of making profit, floor area ratio is the essential component throughout the whole process. However, a detailed 'design strategy' is not a tool for securing a profitable floor area ratio, but a way to realize an architectural scheme that responds appropriately to different urban situations. In Alley House, floor area ratio has only a neutral value. Emancipated from the game of increasing FAR, the basement blurs the boundary between the architecture and the alley, and the office on the first basement floor benefits from a comfortable empty space shared by the alley. It becomes natural within and without the office and alley to see people going out to the alley through the office window and standing up to greet neighbors passing by. Here, the distance between objects, posed by the architecture, creates a psychological interval nurturing an intimate and interesting relationship.

03. Yoap White House

Laws and building site regulations are inherent conditions and the starting point of design, in addition to the requirements of the client. These restrictive conditions sometimes help to draw the line on some of the client's unclear requests. Floor area ratio sits on the front line where the desire of the client and regulatory restraints collide. Architects are the mediator in this battle. But their role is not only to find legitimate common ground between both parties but also to suggest a third element called aesthetics. In this project, the architect satisfied the desire of client by securing the maximum number of units, and also transforms the scenery of the town by adding the third element. During this process, floor area ratio doesn't encourage standardization but rather contributes to producing a quality outcome while controlling desire.

04. White Cone

In cities the land value, purpose of investment, and program and type of building are all affected by the building's floor area ratio. Where optimal land value demands a floor area ratio of 200%, the most feasible building type is a mixed multi-family unit and neighbourhood living facility. If a settled floor area ratio determines the outer relations of a site, it automatically poses restrictive conditions within the site as well. Even the shape of a building can be determined instantly when defined by building regulation lines, building coverage and maximum floor area ratio. These building types can be used as a universal model applicable to any residential area. In this purely residential area, if the proposed small urban mixed-use buildings flourish, the present functional pedestrian paths will start to transform into a good urban walkway, and mutual interactions between living and commercial spaces will enrich the whole area.

05. Cheongseok Church

Symbolism is an important aspect of religious architecture. In this project, rather than starting with a formative principle, the architect tried to find the formal potential as determined by the restrictive regulations and the site. According to a regional regulation, assembly facilities can only be on basement floors. By combining this spatial regulation, the name of church ('Blue Stone'), and the desire of the church to become a cornerstone of the region, a conceptual narrative was created: "Excavate and raise up the blue stone that has been buried underground, build a church on the excavated underground area, and make the raised stone a symbol of the region." This narrative is successfully incorporated into the design, and opens new possibilities for small-scale church construction projects which can easily lose their identity wandering through restrictive regulations and demands on maximizing floor area.

06. Gablepak

New town areas are often controlled by various regulations designed to prevent overcrowding. However, trying to follow those regulations and win the game of maximizing floor area ratio leads to buildings all looking too similar. In this house, however, the roof slope specified by the regulation is used as a balcony or an internal void which doesn't affect the floor area ratio, giving a unique character to the house. The mezzanine units allow for a decent floor area ratio, and the public area with an open ceiling works as a communal space that encourages communication among neighbors. These architectural elements are the outcome of an attempt to propose a new design while still following the typical economic and legal requirements of mixed-use housing. While Gablepak may look like a mutant, it more importantly suggests a new architectural solution for present-day new town living environments.

07 Rabbit House

In the early stage of the project, a profound strategy was taken to merge the house into the socio-cultural context of town. Originally, this area was a detached residential area. However, after a change in the law, the area density increased by three times. As a result, alleys have been engulfed by shadows, and courtyards of individual lots have been downsized and turned into gaps between buildings.

During the design process the clearance, which does count towards floor area ratio, was restored as an alley or a courtyard. Applied to the mezzanine unit, the daylight regulation line becomes a guideline intended to help facilitate daylight conditions in high-density areas. Residential density is an important measure not because it provides numeric data, but because it defines the quality of a living environment. When one says density of a city and density of life are different subjects, architecture will say differently.

08. Chinese Boxes

A three dimensional buildable area can be defined by daylight and building regulation lines. Yet, if we raise part of the ceiling of a unit by almost double, we enable a flexible use of space in the future. If we draw a sectional design by cumulating those units, we can have a taller building and a clearer three dimensional building area. This kind of height expansion strategy helps to cultivate flexibility for future space use, enhancing rental potential. The architectural value of this two storied house, which is practically extended to 4 stories high, can be found in its three-dimensional appearance, distinguishing it from other multi-family units. This process clearly illustrates the desire and trend of the real estate market.

09. Serendipity

The concept was to build a house functioning as a cluster of Individual units and, at the same time, as a single house by means of effective use of the outdoor space. The brief was to introduce, on a 20m² plot, a building with a maximized gross area, having 10 residential units with a maximized service area and outdoor area. And the goal was to suggest a universal multi-family housing typology for single households.

Creating a practical house replicable by builders, which displays all the desired social and cultural values, was practically a “mission impossible”. However, the architect wanted to prove that a building designed by architects does not waste space but rather is a well-functioning property valued the market. If the residents of this house can find expression of those social and cultural values, that will be good enough for the architect.

10. Silver Shack

In Seoul, where large-scale construction and demolition is commonplace, people used to enjoy discovering new heritages. Here, the architect found beauty in the coincidence and heterogeneity of two overlapping neighborhoods, near Danganlee Power Station and the streets of the Hongik University. This heterogeneity became the starting point of the design.

The body of the building has a simple shape that embraces a number of houses having different floorplans. Due to site conditions, regulations and economics, it has been shaped as a lump of mass which shows no drama. The exterior skin is finished with clear embo-polycarbonate corrugated panels, so the entire exterior appears as a silver wall due to the exposed aluminum foil insulation. The emptied area of the staircase is wrapped by polycarbonate planes which make the space look translucent, making it hard to feel its depth. The curvy stairs and rails, as well as the rice paper and birch wood finishing of the interior, dilute its image as an industrial building from the exterior. When the smoke of the power station casts a shadow inside the house, the boundaries between human and nature blur for a moment but then become clear again.

11 Beyond the Screen

In an attempt to maximize floor area ratio, the volume of the building is drawn along the building regulation line. By reducing an unnecessary corridor space and opening direct access to the unit at the landing of the stairs, the public area is kept to a minimum while the private area is maximized. Ironically, this caused an expansion of the small courtyard between two structures, enriching the spatial impression of the building. Instead of a dark corridor space, a courtyard which exhibits different faces by the changing light and wind of the seasons is used to access each unit, and also enables all units to take advantage of natural ventilation. While maintaining profitability, a proactive plan is prepared to prevent building equipment facilities from being exposed or getting out of control in the future, in order to put the focus on the beauty of the architecture.

12 Yeoksam Retail Space Project

Located in an alley of Gangnam where economic sense comes before everything else, this small-sized commercial building had to look bigger and more impressive. As the site is in a prestigious area with high rental incomes, reducing construction time was important, as the high expense of the steel framework construction was offset by a reduction of bank interest and earlier rental income.

As an external cladding, insulating glass is used to minimize the wall thickness in order to increase the useable floor area. The building looks larger thanks to a projected balcony and a thin mass built up on the roof within the daylight regulation line. This rooftop mass will help to extend the building and make the roof area into an internal space in the future. Though it was impossible to do so for the lower floors due to the carpark, the stairs are moved to the outside for the upper floors to gain more rental floor area. The discussed subjects such as securing feasible rental floor area, expandability of floor area, exterior cladding and circulation system are devised as solutions that guarantee the survival of the building in this particular area. These types of solutions help our cities evolve.

13. Marble-ing

For Marble-ing, while strictly following the Korean real estate norms emphasizing the value of the floor area and numbers of units, the architect tried to impose a measure of architectural meaning within the site context. While a reasonable rental floor area is secured with a maximized building coverage and floor area ratio, the architect uses Yeoksam Cathedral located in the east as a focal point for his design, as the façade facing multi-family units is closed while the one facing the cathedral is open, implying some relationship to the cathedral. The name 'Marble-ing' refers both to the fact that the building is made of marble, and to the marble pattern of meat. Since marble is a byproduct of time, the accumulated layers of marble provide a semantic contrast with the timeless image of the cathedral.

14 Gap House

The site is just one of those everyday spaces that can be found all around Seoul. The architect looked into not only the density of the site (floor area ratio) but also the density of the area, and he tried to achieve a better living environment with an efficient use of space within the same level of density.

Defined following the building coverage regulation, an open space is concentrated in the center as a public resting place, and retail facilities are positioned near this gathering space in order to raise the rental income of the building. As a result, two different values are achieved simultaneously: maximum efficiency and a pleasant social environment. If individual buildings like this keep making small improvements, then the landscape of city will be changed, and so will the lives of its citizens.

15 Y House

Accustomed to working from three-dimensional perspectives, architects are well suited to suggest housing designs that optimize volume, which in turn can maximize a client's profit. Such designs provide space for people to live a more comfortable life, while maintaining building costs within the market boundaries. Here, four housing units are constructed in the south according to market building standards, while on the irregular north site, a duplex studio is introduced. This studio appears as an attractive space, with a high ceiling and expanded interior space that opens a view to alleys through the seemingly stuffy walls of neighboring apartments. If market rules were followed strictly, the north site may have been abandoned altogether. However, thanks to the architect's three-dimensional design vision, this space has developed into a pleasant addition.

16. 3P House

Despite of restrictive conditions posed by the floor area ratio and other regulations, the architect attempted to secure a public space and enhance freedom in the use of that space as much as possible. A public pass is opened by merging lots and arranging masses in a vertical direction. The client's unit in the south is designed as a duplex to place a roof garden in the north so that the rental units can have easy access. The ground floor and the rooftops are transformed into public spaces, arranged to look readable and accessible through their permeability. If combining two lots could give rise to a small public space, then a block development could deliver a more spacious community area. The project itself is an experiment based on the select and concentration strategy, looking into the potential of multi-family housing as a low-rise apartment for high density urban areas.

17 Micro Housing

The volume of living space owned doesn't always reflect the quality of an owner's living environment. For Mirco Housing, although individual units are made as small as the regulations allow, the unowned spaces between the units are made available for all to use, and a sense of spaciousness and an extension of their private area are felt by tenants. Today the concepts of family, housing and social values are changing rapidly, and the size of a family who lives under the same roof is constantly expanding and contracting. As people search for space under these circumstances, the stability and sustainability of housing has become vulnerable. However, if a housing development can expand and contract along with those changes, sustainable housing will become possible.

18. Nters Properties Building

The design is determined by several factors, including the correlation between floor area ratio and building coverage ratio, rental business strategy and design scheme. An analysis on the existing rental business market dictated that the floor area of each level doesn't need to be unnecessarily large. Therefore a smaller ratio than the legal building coverage ratio is applied. Instead, the number of floors is increased according to a given floor area ratio, and the building height is raised so that the building can make a stronger statement. The building is composed of a commercial section in the lower floors, an office section in the middle floors and a housing section in the upper floors. Thanks to the reduced building coverage ratio, a relatively spacious outdoor area can be created, and this is assigned as a courtyard for the commercial sector on the 1st floor. The detached house on the top is rather compact but has a stunning view. And it can also take advantage of natural lighting and ventilation as well as of the courtyard. The façade is also comprised of three sections. The functional components of the interior space of the building are exposed on the outside, which explains the rationale of this rental building. This mixed-use architecture, a rainbow cake-like building, will bring new energy to the street and suggest a new type of urban architecture for the future.

19 SH Housing

Architectural design is about building a system. Starting with an intact mass, after having absorbed necessary information about varying layers, an architecture emerges to apply a non-linear process bound by cause and effect. During this detailed mapping and adjusting process, architects look for their opportunity to intervene. They draw diagrams in response to logical demands, and then look for anomalies in the logical process to apply values. The city is a place where personal and public interest are fiercely in conflict with each other, and as mediators who control and manage these two forces, architects work to find a balance between the agendas representing personal interest such as the number of units, floor area and economic value, and the agendas representing public interest such as setback regulation, building coverage ratio and floor area ratio.

20 ArchiFiore

ArchiFiore suggests an alternative model where design has lost its direction after securing the required floor area ratio. The site is an odd pieces of space with an irregular triangle shape. But the site had to be used 'as is' in order to meet the legal floor area ratio requirements. Despite its primitiveness and inefficiency, the shape is cast as an Interesting and unusual feature to give a distinguishing character to this commercial building, so that the building can evoke curiosity. The building is a small vertical city that looks like a giant Pop Art flower, and at the same time, a new landmark. The outdoor stairs are connected to the city like a freeway, and the vertical

elevator runs through different programs including a café, restaurant, office and housing. The building is designed to employ a sculptural language which is unique in the urban environment of Korea. This kind of innovation helps to give a distinctive identity to Korean cities.

21 Sugar lump house

When a careful approach to quantitative considerations is added to an architect's concept, property value increases. Clients are satisfied while tenants can get a cultural asset, 'a home with a courtyard'. Coordinated with the span of the cantilever and the number of units, the units satisfy the necessary floor area ratio as much as possible. The cantilevered units come upon a courtyard which doesn't count toward the floor area ratio calculation for of each unit. Because of this, the exterior volume looks larger within the setback regulation line. The courtyard gives energy to the street, and encourages communication among inhabitants, while producing a higher income for the client compared to other multi-housing units in the area. As a result, the building has become an attractive product for both the client and tenants, and also a public resource for the city, which contributes to the local community.

22. Gilmosery

Modernism caused a shift from masonry construction to frame construction. In the West, inside and outside are still regarded as different subjects as the walls of frame construction were no longer load-bearing walls. However, in traditional Korean architecture, the 'wall' can open and close, and surplus space can be found in a boundary area. Considering the functional relation between floor area ratio and building coverage ratio, this approach to surplus space is relevant even now. If we reduce the building coverage area as much as a given floor area ratio allows, we can find extra space while meeting the building coverage regulation, as it doesn't count toward the floor area ratio calculation. Surplus space creates physical boundaries and can make various forms which don't interfere with the interior space.

Until now, contemporary architecture has been inclined towards closed structures, while modern technology and materials encourage the creation of an open space. Designing architecture with open space will lead isolated people into social communication, and this phenomenon will spawn a new cultural identity in architecture.

23 Sky House

As floor area ratio controls the sum of the floor areas, not of volume, buildings can be taller as long as we can have their floor area under control. However, most rental buildings are being planned to have a minimal number of floors for economic reasons. So when they come to build

a carpark, they use pilotis because that's the cheapest solution. As a mixed-use building of housing and office, the project building is raised as high as the height limit allows. The housing floors are positioned above the office floors so that they can have a stunning view over the surrounding buildings. For the carpark, instead of pilotis, a semi-basement space is constructed, and above it, small-sized commercial street facilities are introduced to create extra rental income and make the street flourish at night. Small-scale rental buildings are vulnerable to economic considerations and are being produced repeatedly at lower cost, but they are the ones dominating the cityscape. We are in need of a new typology which doesn't stand against economic flows to improve the living environment and the appearance of the urban landscape. This project is a good example of this.

24 Tetris House

As it's hard to meet floor area ratio demands, land plots downtown are often found difficult to use, and can disappear into large-scale development projects. If architects are free to experiment to discover new values in these cases, it will be possible to create a healthy city which adapts well to changes while maintaining a city fabric that reveals traces of time. In this project, the architect found an architectural possibility in terms of volume when he had to build as many micro-houses as possible on a narrow and deep site. By dividing volumes, he tried to find hidden spaces which are invisible in the two-dimensional plane. During that process, he designed one-bed units which were small but had all that they needed for a comfortable living environment. Architects always have to strike a balance between meeting the required floor area ratio and creating a quality space that is intrinsic to architecture.

25 Cloud Garden

The proposed building is cooperative housing with 8 units. Equity among all units was considered an important value regarding scale and lighting, but above all, equity in the view of Bukhansan Mountain was tantamount. Of course, securing maximum floor area as well as a public space supporting the cooperative housing community were equally important. Due to the set regulation line for daylight, the building couldn't have the required height, so as a result, the building was transformed into a pentagonal cube with a hipped roof. The public space for the residents is made by cutting out part of the cube. By determining the scale and shape of the building based on maximizing floor area and building coverage area, the individual units are given essential equity, but also have different spaces and layouts which give each one a distinct character.

26 Matryoshka Nonhyeon

Besides determining a floor area according to its maximum floor area ratio, rental buildings require architects to seek out hidden areas. By using the sloped topography of the site, the underground area is exposed, and a sunken garden is constructed there so that the area can be used as a rental space.

For the floors above ground level, a terrace garden is placed on each floor along the pyramid shape determined by the setback regulation line so that the floor area of the terrace can be recognized as part of rental space. Following the screen installation regulation, the parapet is expanded, and a cantilever structure is applied. These solutions make the building display a boundary-in-boundary, space-in-space narrative like a Matryoshka doll. Without profound reflection on architectural methodologies affected by laws and institutions, the tendency towards unlimited reproduction ends up causing social and cultural stagnation. Hence, while an architect needs to flow with laws and institutions, they should continue to challenge them with new ideas.

27. o.d.Building

Meeting a given floor area ratio is obvious, but architect still want to find 'intangible areas' which increase the floor area as regulated by floor area ratio.

Being free from the setback regulation line, the commercial facilities on the lower floors are arranged to directly face Garosu-gil Road. To have a maximized floor area within the limit of daylight lines, the offices on the upper floors are positioned in parallel with the north boundary line of the site. As a result, the building ends up having two masses which are twisted by 15 degrees. On the other hand, verandas are constructed in a space which keeps shrinking going up to the top, and a void is introduced to connect two floors. These are tools to nurture a good sense of space on the inside, and of volume on the outside.

The void which has no veranda or floor becomes an 'intangible area', and this imaginary area accounts for 13% of the whole area (33% of the site area).

28 Interrobang

The architect wanted to promote local communities where economic sense, here rental income, comes before everything else. For a site surrounded by neighboring buildings and having limited access to the main road, he attempted to attract people and actively draw the flow of city to enhance communication with the streets. The three-dimensional promenade is expanded in a vertical direction to make the building more distinct, to enliven the streets, and to enable a flexible use following changes in program. Also this promenade works as a venue

for social exchange. While communicating with the city, the internal potential and external form of this small community building fosters harmony and promotes a new type of space and culture.

29 Place J

Good urban design introduces an ongoing relationship between architecture and the city. Shaped along the setback regulation line and the due north daylight line, the pentagonal pyramid-shaped building is composed with varied architectural elements communicating with the city. Architectural elements like balconies, podiums and eaves together create a distinctive space by combining forms and programs. On the other hand, the pentagonal shape will define an unusual and unique space in the city and attract attention to its architectural form and language. Covered with lime stone vertical louvers, the exterior wall makes the architecture appear as a group of lines rather than a chunk of mass. The lightness of segmented straight lines and the heaviness of stone come together and produce an ironic but authentic materiality.

30 Oceanus Group Office

As the site was bound to a height limit regulation, the proposed building has achieved a floor area ratio of 97% though the legally allowed ratio is 200%. However, by using level differences in the site, three basement floors are constructed based on the same floor plan of the upper floors to make extra space that doesn't count toward the floor area ratio calculation. Made of straight and curvilinear lines, the structural frame encasing the entire building creates semi-outdoor spaces. While these spaces are exempt from floor area ratio, they are the essential design solution devised to encourage people's activity. Reading and analyzing a site and suggesting a design is the very complicated and strategic work of architects. In order to create desirable spaces and programs, architects have to work through innovative questions based on their own experiments and perspectives rather than relying on general textbook answers. Only by these questions can architecture be transformed into a medium that provides opportunities to solve socio-cultural issues.

31 Stocky Bundle Matrix

Six different setback regulation lines are applied to this site. If one tries to meet a maximum floor area ratio, they will end up having a pyramid-shaped building. The architect suggested a cluster of flat-type masses to enhance the lighting condition for the proposed small housing unit. Woven together along setback regulation lines, the two inclined masses and one vertical mass come up with various in-between spaces on every floor. This solution helps the building

have a public space that is spacious instead of passage-like. This has been applied to projects in the past, and once again proves that the Matrix Studies method, which has been used to develop residential areas having different density, can work as a universal strategy and be adopted in a variety of situations.

32 KHVatec Headquarter

The current legal floor area ratio for this area is 250%, but this limit will be increased to 400%. The building is designed to adapt to this change in the future. Its structural frame is expanded first as much as it can to accommodate a floor area ratio of 400%, but only the area equivalent to 250% is used as an actual interior space. The beams exposed in between the framework and the space become part of an outdoor balcony and create a new landscape between the framework and the main body.

A design solution to increase floor area ratio is the most quantifiable measure one can use to convince clients. If an architect has to justify his scheme to his client, he had better relate it to floor area ratio rather than to elaborated details or design languages. If an architect wants to realize his own desired values, he must know how to use the 'maximum floor area' card that is treasured by clients.

33 Sang Gye 341-5

When we regard building coverage ratio and floor area ratio as only numeric measures, such values like quality and diversity of life will disappear. This project focuses on an improvement of the urban living environment by suggesting some innovative designs. Having lower rental value despite its proximity to the metro, the upper floors were defined as a living area, and compact outdoor spaces were added to propose a new type of relationship between small-sized housing units and the urban space. Within the restrictive floor area ratio regulation, the architect tried to create unprecedented architectural volume. During the process, along with a construction cost issue, there was some discord between unusual designs and given programs, proving that innovation is not easy. However, persistence with such small experiments will end up giving us a different urban architectural environment.

34 Dagong

Considering that clients regard profit as the greatest value, the focus was put on securing a maximized floor area ratio and on specialized work for the lower floors to create a higher rental income. For the 1st floor, which directly meets the street, the mechanical parking system and handicapped parking area are positioned at the back of the site despite a narrow and poor

traffic route, in order to maximize the floor area. In its front area, two rental spaces are organized around the main entrance. To increase the building height as much as possible while keeping the maximum number of floors allowed by a given floor area ratio, the middle part of the mass is cut out and placed above the upper floors, and an outdoor area is inserted in the middle of the mass at the 2nd floor level. As a result, an area equivalent to the total area of three floors is transformed into a vertical volume. And for this transformed mass, openings connecting two floors with a zigzag form are installed to produce varied interior and outdoor spaces.

35. Hanyu Office Building

Gas stations in Seoul give a unique characteristic to the city. Due to the nature of the business, they have to be located on roadsides. And as they don't need to be taller than two stories high, they have been blamed for breaking the rhythm of streetscapes and making them look like a saw blade. Recently, due to the stagnation of the gas station industry, more projects came about that replaced abandoned gas stations with new buildings. Under these circumstances, some people have created a new type of architecture by means of organizing a new lot above an existing gas station and constructing a building on the lot. The current fire services act restricts transforming a gas station into a mixed-use building, therefore it is not allowed to host a residence, care center, school, hospital or clinic. Only office, retail or neighborhood living facilities are allowed. This new type of mixed-use building combined with a gas station enables an increase in floor area ratio up to 240%, where a normal gas station building is usually 40%-80%. Consequently, it will again be the cause of a disconnect in the flow of the cityscape.

36 Residence L-Ga

In the housing market, the visions of unspecified individuals are the forces that shift the design of buildings from supplier-oriented to user-oriented, changing the city in the process. Architects are not the creators of this flow but rather the discoverers. Considering building coverage ratio, 17 floors were enough to meet a given floor area ratio, but as there was no height limit, the building has been raised to 24 floors under the same floor area ratio condition in order to fulfill the dream of residents to have "a home with a courtyard". The system used here allows the extension of a building up to 20 floors or even up to 30 floors. And individual courtyards can be adorned differently according to the taste of the user, and they display different colors by season and by species of trees. These scenes affect the appearance of the building. The design of the building gives a humble answer to the small question of how humans will survive through development projects that are guided by extreme capitalism.