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Abstract

In recent decades, Seoul in Korea has experienced a rapid economic and urban development as a result, the city has developed in a manner that lacks balance. The heavy megareal estate is located next to the small old fabric district, which causes a sequence of experiences from the lower level to the higher level. Second, inhabitation of single family homes implies that stairs can function as an essential design element that can create a sequence of experiences. Urban Stairs by Yoonhee Cho is focused on finding a solution to this issue by creating a mediating zone that respects the existing systems of two zones. This mediating zone will provide communial, commercial, and public - indoor and outdoor - programs serving for both zones. As an architectural device, the stair contributes to the three-dimensional organization of a current two-dimensional realm. The stair is a multi-functional element that can be used for circulation purposes, as well as an occupiable space. Its strong figurativeness strengthens the degree of singularity as an urban artifact.
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To Diane Choih, Juho Lee, Damiy Lee, Yeon Kim, Sungwoo Jang, Hyunkyu Lee and Hyung Zhe.

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01 Introduction

Disharmony in Seoul

In recent decades, Seoul in Korea has experienced rapid economic and urban development. As a result, the city exhibits extreme disharmony between different zones. For example, heavy mega structures are incongruously located right next to the small old fabric district. The thesis especially focuses on the urban conflict between high-rise and low-rise residential areas. The later high-rise development impaired the single-family housing environment and drastically changed the existing urban landscape and structure. Instead of pursuing coexistence and sharing, the high-rise development chose to delete all the historical accumulation over time and to be inserted like an urban island in the city.

Elevation Difference

This disharmony has been exacerbated by the elevation difference. Since Seoul is located amid mountains, a steep slant is the general topographical condition in many districts. Because the mega-scale development happened after the old town had been settled, many big apartment buildings have been constructed on hills where there was a left-over area. This elevation difference enhances the disconnection of the apartment block from its urban context.

Reconciling Two Zones

The goal of this thesis is to reconcile these two physically adjacent but separate residential areas in a way that results in the creation of a contiguous two-dimensional organization of a currently two-dimensional boundary. Architectural Device

As an architectural device, the stair contributes to a three-dimensional organization of a currently two-dimensional boundary. Stairs: Architectural Device

As an architectural device, the stair contributes to a three-dimensional organization of a currently two-dimensional boundary. The verticality of stairs connects two levels, creating a sequence of experiences from the lower level to the higher level. The inhabitability of stairs implies that stairs can be used not only for circulation purposes but also as occupiable space. Their use can be extended to the urban environment, where stairs can be used to connect various levels of the urban block and a circulation system will tie the old city together as a whole, bringing unity into the mega-block and a circulation system will tie the old city together as a whole, bringing unity into the mega-block and a circulation system will tie the old city together as a whole, bringing unity into the mega-block. The stair's strong figurativeness strengthens the degree of unity with the urban context.

Architectural and Urban Scale

The thesis will result in a multi-functional and urban project which is an outgrowth of several layers of tensions. First, a multi-functional and urban project can connect the city with its rural counterpart. This project will provide commercial, communal, and public—both indoor and outdoor—programs serving both zones.

Elevation Difference

This elevation difference enhances the disconnection of the apartment block from its urban context. The height difference between different zones often exhibits the existence of different regional social classes, which can be observed in the city of Seoul. In recent decades, Seoul in Korea has experienced rapid economic and urban development.

In Seoul, the elevation difference is due to the historical accumulation of time and to be inserted like an urban island in the city. The thesis focuses on the urban conflict between the high-rise and low-rise structures, which have been constructed on hills where there was a left-over area. This elevation difference enhances the disconnection of the apartment block from its urban context. The stair's strong figurativeness strengthens the degree of unity with the urban context.
Various sizes of buildings are mixed in one place. Instead of well-planned development, Seoul has experienced rapid and extreme change over the decades.
since 1970, there occurred an overpopulation phenomenon in cities owing to industrialization and urbanization in the course of rapid economic growth in Korea. As a result of economic growth, they have come to lead a rich life, whereas a gap between rich and poor has been sharpened due to the unbalanced development between regions. The socially alienated class in Korea has run up to ten million people, and a social and cultural polarization phenomenon has been exacerbated in Korea. This phenomenon is known as the 'Moon Village' phenomenon.

Another Approach

Current government plans for the Residential Environment Improvement programme should not be another simple redevelopment of ‘Moon Village’, but an opportunity to find out practical redevelopment alternatives to single-family residential environments. The socially alienated class in Korea has run up to ten million people, and a social and cultural polarization phenomenon has been exacerbated in Korea. This phenomenon is known as the 'Moon Village' phenomenon.

Redevelopment Projects

After a decade, because of its inaccessibility and low qualities of living condition, these housing on the mountain have been going through a huge redevelopment. The redevelopments impaired single-family housing environments in Korea. This phenomenon is known as the 'Moon Village' phenomenon.
Since Seoul is located amid mountains, a steep slant is the general topographical condition in many districts.

Over a long history, old towns had settled on flat areas surrounded by mountains. The town had been expanded towards hill sides, and mega-structures such as big apartment buildings have replaced single-family housing on hills.

Disharmony exposed between the old town zone and the mega-structures has been exacerbated by the elevation difference.
The Government Initiated Project

The Ministry of Culture and Tourism designated the year 2006 as a year when cultural sharing is performed to solve the social polarization, so that it promoted a cultural welfare project for the socially vulnerable class and alienated region. As part of the project, a public art project was proceeded to improve the life environment in the alienated region.

It has remained at the stage of 'Art in Architecture' in terms of system, specifically it has stayed at the early stage in aspects of concepts of decoration or open-air sculptures. Korea's public art started from the architectural art decoration method, was only recognized as an artwork decoration installed inside a building, so was practiced without any discussion on whether it was appropriate location-wise. This means that artworks were installed in public places without taking regional traits into consideration. This may be resulted from lack of recognition on spatiality and research.

Local Participation

These problems were addressed in 2004 by the culture and tourism ministry, which by announcing 'City culture environment improvement project' which is a new art policy based on art culture and mass culture, it attempted to change the concept of public art from architectural art decoration system. This movement was realized in 2006 by the public art committee through 'Art in City 2006'. This project attempted a new method of resident participating public art, which involved local residents into the project, and publicized a public issue through the community and form a discussion. As is called the community art, a new form of public art, was shown in public spaces through cooperative work with local residents.

Intervention through a Piece of Art

The problems were addressed in 2006 by the culture and tourism ministry, which by announcing a Cultural Project, which is a new art policy based on art culture and mass culture, it attempted to change the concept of public art from architectural art decoration system. This project aimed to revitalize community art, a new form of public art, so that local residents can directly order and produce artwork in order to enjoy cultural art. It aims to create a city environment which mixes local artists and produce artwork in order to enjoy cultural art. It aims to create a city environment which mixes local artists and produce artwork in order to enjoy cultural art.
A public art project was proposed to improve the environment in the alienated region.

One of the typical towns which had been expanded towards hill sides

Moon Village

Current Seoul Map, 21th Mountains over Seoul

The city has been developed and reorganized with mega-structures.

Redevelopment

Single-family housings on hills have been replaced with mega-structures.

Nacksan Public Art Project

A public art project was proceeded to improve the life environment in the alienated region.

many districts

A section of Seoul

The city has been developed and reorganized with

Mountainous Over Seoul

Redevelopment

Nacksan Public Art Project

Current Seoul Map, 21th

Mountainous 9th

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The city has been developed and reorganized with

Redevelopment

Single-family housings on hills have been replaced with mega-structures.
Case Studies

The situation that single family-housings are located right next to mega structure buildings is happening all around Seoul. Thus, the quest of this thesis is to find a typological approach rather than to seek a particular solution.
The site is surrounded by mountains. The site is located on the edge of the hill. The site is located between single family-housings and mega structures.

**Site Sections**

The longitudinal and transverse sections show the topographical and urban condition of the site.
The only treatment to the elevation difference is to build retaining walls between two levels.

Retaining Wall

In order to cope with about 20m elevation difference between two zones of mega structures and old town, it has been divided into three steps of retaining walls and contains tennis courts and vehicle roads.

3 steps of Retaining Wall
The map sometimes tells more than its physical condition. The comparison between the red and black lines imply an elevation difference. The pink lines imply an elevation difference. The selected site represents the rest of the area.

The red area denotes residential areas and the red block represents the existing road system which has been naturally developed. The potential sites are marked with a grey strip. The black denotes residential areas and the red denotes the rest including commercial, institutional, and public programs.
Existing Condition

The site has a complex condition, especially various levels are intricately entangled with each other. Since the complicated elevation relationships are simply treated with retaining walls, each zone has no connection with others.

Elevation Manipulation

By digging over and reclaiming land, new elevation is suggested. This is a process of optimizing a given condition. The processes of the program insertion and elevation manipulation should work back and forth.

Amenity Programs Insertion

Based on the elevation manipulation, new public or commercial programs are proposed. The center is proposed as a public plaza and the layer of programmed spaces is suggested. Newly inserted programs on both sides surround a center area.

Creating Main Public Plaza

Newly inserted programs on both sides surround a center area. The center is proposed as a public plaza and the layer of programs becomes thresholds which connect residential area to the main public plaza.

Extending Ground Conditions

Additionally, the ground from the apartment block and the old town can be extended into the public plaza.
Lacking Public Spaces

Seoul is one of the heavily populated cities in the world. Pedestrian roads are often invaded by street vendors, goods, or cars. Public area exists as a left-over rather than designed space.

Site Map

The need of providing public spaces to this area is proved by subtracting non-public spaces.

Subtracting Car Circulation

The proposed public space should be a car-free zone.

Subtracting Deep Slant

A slant is difficult to be cultivated to public area.

Subtracting Buildings

The remaining area becomes fragmented.
A retail building which contains all kinds of facilities in one building is very typical in Korea. The plan of the retail building is regularly divided. The size of one unit area becomes a basic module for plan design. Analysis on current programs of existing retail building in the site helps to suggest more realistic programs needed in this area.
Threshold Program layers on both sides surround main plaza in the center.

Vehicle Circulation Vehicle can access to the parking lots from two existing levels.

Pedestrian Circulation Several sub circulations intertwine with a main circulation which goes through from the bottom to top level.

Circulations The mediating zone provides vertical and horizontal circulations for both vehicles and pedestrians.

Composing Elements The proposal provides not only infrastructure but also public programs to both zones.
Conceptual Work

The mediating zone between the mega structures and the old town is sliced every 200mm. The height is stem from a size of one riser of stairs.

Design Tool

The sliced plates are especially useful to manipulate a small amount of elevation difference. Each plate becomes sometimes stairs, programs, or plaza.
Fragmented Expression of Stairs

I believe that all parts of buildings are physically or conceptually connected to one another and to the whole. Consequently, all parts of buildings are intimately connected to their components and to the whole, like pieces of a puzzle. Each part of the building is not independent but is integral to the whole. This interconnectedness allows for a unified design that is greater than the sum of its parts.

**Defining the Integrated Essence of Stairs**

This thesis will investigate the possibility of stairs by designing a community center, in Nacksan, Seoul, governed by the rules for designing stairs. First, stairs, as a generating device of a building, are considered as a part of a wall and floor, containing programs, providing a circulation system, or arranging spaces. Second, stairs, as an intervening tool, contribute to transformation of urban context. Therefore, a small-scale community center for its neighborhood will be a main program inside one parcel, but, more importantly, the boundary of the site potentially includes some existing context and the streets in between buildings.

Towards a Larger Architectural Discourse

Defining the integrated essence of stairs by exploring their fragmented expressions will tell us not only the story of the stairs, but also the story of architecture. Through this process, the ideal goal of this design project is to advance the boundaries of ideas from the conventional definition. By expansion, to obtain a better understanding of the entirety of architectural discourse.

The Virtue of Contemplation

Again, all parts of buildings are physically or conceptually connected to one another and to the whole. Consequently, all parts of buildings are intimately connected to their components and to the whole, like pieces of a puzzle. Each part of the building is not independent but is integral to the whole. This interconnectedness allows for a unified design that is greater than the sum of its parts. Each part of the building is not independent but is integral to the whole. This interconnectedness allows for a unified design that is greater than the sum of its parts.
The Exhibition of Walls, Doors, Floors and Stairs, Rachel Whiteread

Rachel Whiteread, a well-known artist for her series of casting works, exhibited casting installations of architectural elements such as walls, doors, floors and stairs at the Kunsthaus Bregenz. It was a successor work of her interest on ordinary domestic objects. By showing invisible sides of these elements, sculptures, she was revealing the complex and emotional relationship between man and objects. Her speculative approach to a particular object says something beyond the literal meaning of that object. Eckhard Schneider offered comments on her works: “They no longer present only the visible aspects of the object or the architecture, but also the invisible enclosed within them. All that is diffusing, yet mentally, physically or emotionally perceptible, is brought to light in the mystery of the object.”

Kait Workshop, Ishigami Junya

Through the project of the “KAIT Workshop” as part of the Kanagawa Institute of Technology campus redevelopment, Ishigami Junya embodied his ideas about one specific architectural element in the actual building. The 305 white columns, almost none of them identically proportioned in their sections and orientations, contribute to the building not only by structurally supporting it, but also by organizing programs and creating a rhythm of space. In this experimental project, he advanced the boundaries of columns beyond the traditional function. This rethinking process becomes more visible by virtue of the fact that the extended interpretation of one element successfully and fundamentally changes the whole building.

Wall House 2, John Hejduk

This house was originally designed by John Hejduk in 1973, but had existed only as a concept until it was actually built in the Netherlands. The name of the building is telling: the one-and-a-half-meter thick wall is the conceptual center of the building. The wall is an architectural experiment in the possibility of metaphysical interpretation of physical elements. This physical division or transition through the wall implies the context of time from past to future, or something beyond it calling for new interpretation. This is clearly demonstrated by the success achieved by rethinking of one specific architectural element.
The diagram of an imaginative stair house was mainly inspired by the Primitive Future House by Sou Fujimoto. This conceptual house is composed of slabs layered at 350mm intervals. These slabs be used as chairs, desks, floors, roofs, shelves, lights, openings, gardens, and structure. 350mm is based on the size of human activities. For example, 350mm is the height of chairs, 700mm (350x2) is the height of desks, 175mm (350/2) is the height of the steps of stairs. This succession of such different levels creates a variety of places.

A Nest and a Cave

According to a 2010 interview with Sou Fujimoto, "A nest and a cave are the two primordial forms of architecture. A nest signifies a hospitably arranged functional place for the benefit of resident persons. In a cave, there are various convex-concave surfaces, unforeseeable expansions and contractions. Upon entering a cave, humanity can rediscover the ways of life from those geological features. ... A cave is not functional but heuristic. Instead of an authoritarian functionalism, it poses as a place where various activities are stimulated and facilitated." He is suggesting a solution for the future of architecture.

Rediscovering Humanity

This thesis takes its starting point from Fujimoto's remark above. The stairway, because of its inherent sensitivity to the scale issue, will be a great material.
Almost 100 years ago, when this historical diagram was made, new technologies and materials provided new architecture.

Dom-ino House prototype, Le Corbusier 1914

Conceptual Work, Toomee Cho 2011

In contrast, the Stair House, which suggests for an imaginative era, reveals an intentional ambiguity. This new diagram shows that the stairs are designed as a roof or floor or furniture, used for circulation, or even to provide the basic module dimensions. Our intention can be deployed for various purposes in the diagram, and each part does not necessarily limit the function to a single purpose. There is no clear division between a roof and furniture, or between a floor and circulation.
Intervention Started from Drawing a Line

In fact, to say that stairs will contribute to transformation of urban context through intervention is redundant. No architectural behavior exists without resulting intervention. Architectural design is an act, with an intention, adding a new decision onto existing context. Therefore, the intervention happens when a designer draws a line. Nevertheless, the reason for emphasis on the urban intervention in this thesis is that a stair has specific potentiality as an intervening means due to its circulating function. It is effective to connect separated places, transforming in-between spaces and each place as well. The following proposals are good examples of steps used for architectural and landscape interventions. Just, the fact that the thesis design proposal will target both a building and streets is a main difference from these precedents.

The Steps of Providence, Machado and Silvetti

Another good example would be "The Steps of Providence" for the Rhode Island School of Design, proposed by Machado and Silvetti. They focused on the physical conditions of the site, which are mainly characterized by "a steep slope that rises from the Providence River downtown to the city's most significant and historic district, where RISD is located." In order to enhance the unity of the campus and provide a link between the riverfront and the school area, the stairs were designed to provide a public link around the theme of stairs. The stairs were also repurposed as terraces, gardens, and sitting areas.

The Renovation of the Antique Quarter of Salerno, SANAA

This is a proposal for the Renovation of the Antique Quarter of Salerno that is characterized by sharp height differences, magnificent views, and many empty open spaces. Even though the architects did not specifically use the term "intervention," it is a perfect example for an urban intervention through the insertion of stairs. The goal of this proposal was to provide a better access and organization for the intervention, providing a roof for an expanded cafeteria or a public space. Another key issue was that the leftover spaces or threshold spaces into the buildings along the steps were thoughtfully suggested as terraces, gardens, and sitting areas.

Method in the course of the thesis process

When the thesis proposal is being developed, it will be useful to consider a proper representation of special functions. It will be crucial to present a proposal that is well thought out and that clearly relates to the student's intended intervention. The mapping of existing spaces will then determine the desired intervention. Additionally, the proposal is aimed for representation and expression of the spatial qualities of stairs. To create an unedited image and to represent the proposal's open spaces, it is important to keep the architectural drawing as clean and clear as possible. The process of developing the proposal is focused on the decisions made during the design process. Therefore, it is crucial to invent a proper representation method in the course of the thesis process.
Spiritual aspiration is a primitive association with stairs, stemming from religious and mystical concepts. In the Bible, Genesis describes Jacob's dream of "a ladder set up on earth, and the top of it reached to heaven: and [he beheld] the angels of God ascending and descending on it." The story of the Tower of Babel is a well-known parable representing a desire to reach heaven, implying power, superiority, or divinity, through a human creation. This symbolism repeatedly appears in ancient myths from various regions and cultures such as the Monumental Ziggurat in Mexico or the Great Pyramid in Egypt.

Works of Escher and Piranesi

"Relativity" depicts a world in which the laws of gravity do not apply. The six stairways appearing in the drawing are means of revealing an unconventional world of gravity. The reason why the drawing looks strange is that different gravity sources are used at the same time in one space. Each stairway can be used by people who belong to two different gravity sources. Interrogations about perspective and the representation of three-dimensional images in a two-dimensional picture are at the core of Escher's work. His artistic explorations of space are well matched to stair's poly-symmetric attributes.

Piranesi's drawing also stands on the false foundations, and stairways appear often in his drawing. His imaginary prison is basically impossible to construct. Nevertheless, at first glance, the drawing does not look problematic, and after we come to discover invented disorder, it is still difficult to grasp specifically which element is producing the fallacy. I argue that it is not coincidence to find the common presence of stairs in the works of two artists who were interested in three-dimensional perception.

Stair Dimensions and Human Body

The first-century B.C. Roman architect Vitruvius defined what makes some stairs more comfortable than others in "De Architectura," recording his view on the best combination of treads and risers. "The rise of such steps should, I think, be limited to not more than ten inches (25.5cm) nor less than nine inches (23cm); for then the ascent will not be difficult."

The 1885 study of a nude woman descending a flight of stairs is from the monumental work "The Human Figure in Motion" by Eadweard Muybridge, a photographic study of anatomy in motion. Using electrically controlled cameras, Muybridge was able to freeze motion in series and study the body positions of men and women ascending and descending a variety of steps and stairs. His artistic exploration of space is well matched to stairs' poly-symmetric attributes.

Primative Association is a primitive association with stairs, stemming from re...
The Historical Change of Architectural Elements

The diagram of Maison Dom-ino consisted of thin concrete columns, slabs as the floors, and stairways that connected two slabs. In the idea of the open floor plan, apart from this structural core of the house, nothing else was fixed. For the first time, the stairway was being upgraded in the hierarchy of architectural elements. That is the reason why Maison Dom-ino can be regarded as a beginning of modern stairs. Marc-Antoine Laugier, an architecture theorist, is well known for his 1753 drawing of "the primitive hut." He posited that the primitive hut, consisting of columns, the entablature, and pediments, was the origin of all possible forms of architecture. In 1851, the German architect Gottfried Semper proposed his theory of the four elements of architecture: the hearth, the wall, the mound, and the roof. Only with Le Corbusier's Maison Dom-ino diagram did the stairway come to rank among the three most fundamental elements in buildings. As an indispensable element, and with the clear geometry of treads and risers, the new page of the stair's history had been turned.

Space and Stairs: Raumplan

Henry Kulka, one of Adolf Loos' students, described his teacher's works by arguing that "The primary problem should be to express the three-dimensional character of architecture clearly, in such a way that the inhabitants of a building should be able to live the cultural life of their generation successfully." As implied by "three-dimensional," Adolf Loos was very interested in design achieving spatial quality. He proposed "Raumplan" (= space plan), which is the designing method considering the order and size of interior spaces based on function and experience. In his buildings, the interior spaces are visually and functionally connected with each other and appear to be floating over the different levels. The stairway is a very crucial element to lead people to experience the gradual changes of level. It was a deeper exploration of a new way the inhabitants of a building should be able to live the cultural life of their generation successfully.

In summary, the primary problem should be to express the three-dimensional character of architecture clearly, in such a way that the inhabitants of a building should be able to live the cultural life of their generation successfully. From Maison Dom-ino, once again, to repeat Henry Kulka's statement, it was thought that a building should express the cultural life of "its" generation. Through the overview of the evolution of stairs from Le Corbusier's 1910 technical approach to Adolf Loos's 1936 spatial invention, historical research will reveal the cultural life of its time.
It is no exaggeration to say that all buildings have stairs at any rate. Is the stair just a stair, or does it convey different implications through different applications?

A series of six diagrams on the left side is an attempt to iterate similar but different stairs through simplifying all the elements of buildings but stairs and floors. The effort for a clear grouping started from these diagrams will be further developed along the following pages.

**A. Space Underneath Stairs**
Depending on its length, small or large space can be created under stairs.

**B. Converge and Diverge**
One of the most fundamental attributes of stairs is to lead people 3-dimensionally to converge and diverge.

**C. Getting More Light**
Compared to an opening on a flat surface, the opening on inclined surface brings more light into ground.

**Catalogue of Stairs**

Stairs have almost unlimited shaping possibility with different sizes of risers and runs as well as different ways of combinations.
Sorting Stairs: Human-Stair Relationship

Categorizing all kinds of stairs according to specific criteria is not simple. Various criteria quickly invented might seem suitable; material, form, detail, purpose, and so on. Thus, the ergonomic study on the size of stairs is important for designers to create inhabitable space. Again, as on the floor, the ergonomic study can be transformed to the place to stay. In the same way, if the height of stairs is so tall, people can only see steps instead of a stair. Whereas the difficulty of using stairs for people to keep moving, a stair provides inhabitable space by adjusting the depth.

Whereas the difficulty of using stairs for people to keep moving, a stair provides inhabitable space by adjusting the depth.

03 Habitability

The concept of habitability is located in the oblique of ramp when people keep moving in an oblique way. The space between stairs is not used to accommodate a specific function or purpose. The area between stairs is a non-daily experience. It is not concluded that these spaces form a different environment. As a result, the space becomes different from any other spaces in the building. The experience of the stairs in the environment is dynamic. Where people move vertically, they perceive the transition from space to space in the environment. While people move vertically, stairs become the unique geometry of a read and rest has been lasailing architecture. Designers explore the visual possibility of spaces through observation, analysis, and synthesis. The stairs are placed in a specific position of the building.

A stair is a sculptural object with unique geometry of a read and rest has been lasailing architecture. Designers explore the visual possibility of spaces through observation, analysis, and synthesis. The stairs are placed in a specific position of the building.

02 Verticality

One of the most basic functions of stairs is to connect different levels. Thus, the circulation system of the building is closely related to the location of vertical instruments such as stairs, elevators, and escalators. Many architects have explored the sectional concept of buildings by incorporating this vertical circulation in various ways. The quality of space plays a crucial role in defining the vertical circulation in buildings. In the case of stairs, the space is determined by the movement of people. Where people move, stairs are placed in a specific position. The quality of space is defined by the movement of people. Stairs are placed in a specific position of the building.

01 Visibility

The concept of visibility is located in the oblique of ramp when people keep moving in an oblique way. The space between stairs is not used to accommodate a specific function or purpose. The area between stairs is a non-daily experience. It is not concluded that these spaces form a different environment. As a result, the space becomes different from any other spaces in the building. The experience of stairs in the environment is dynamic. Where people move vertically, they perceive the transition from space to space in the environment. While people move vertically, stairs become the unique geometry of a read and rest has been lasailing architecture. Designers explore the visual possibility of spaces through observation, analysis, and synthesis. The stairs are placed in a specific position of the building.

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Arrange stairs according to two factors: chronological order and the degree of engagement by people.
The Paris Opera House, Charles Garnier, 1874

Garnier's Opera House represents a type of theater that is no longer made. The same holds for the cascade of stairs attendant on it, if only because of the huge dimensions that make such a spacious stair and its contents a building in itself. Built from different coloured marble the staircase leads from the foyer to the auditorium. When the audience takes to these stairs it becomes a theater in itself and a unique spatial experience for all concerned. The great space around allows so the audience to see and be seen. This interchange between being seen and seen evokes special experiences by being associated with the real theatre inside.

NYU Department of Philosophy, Steven Holl, 2008

The NYU has selected Steven Holl Architects to design the interior renovation of a 1890 corner building for the Department of Philosophy. About the collaboration with NYU, Steven Holl says: "University buildings need to focus as incubators for interaction between students and faculty. It was a pleasure working with this university that was willing to broaden its design approach by including our staircase that now functions as the backbone of the building."

He has developed it further. The main concept of the renovation was to organize new spaces around light and phenomenal properties of materials. He has organized six levels building through shifting light and shadow and designed to encourage social interaction. This vertical connection in light is activated by the presence of faculty members and students and by a prismatic film splitting the available sunlight periodically. The light effect in the stairwell changes according to the seasons and the time of day.

Fernando Higuera

A series of thumbnail photos brings a kind of interesting light issue to the table. In the work of the stairwell by Steven Holl above is dealing with the lighting issue, but here the lighting coming from the upper level is more inherent phenomenon which we usually don't notice well. The insertion of a light over the top of a stairwell creates a dramatic scene. This specific illumination gives people the notion of different levels, or further, access to different worlds. The light poured from the upper level reinforces the ascending image of the stairs.
House in a Little Forest, Ishigami Junya

The site is surrounded by very beautiful landscape, as the name of project implies. The vertical expansion results in various experiences of surrounded wood from the different levels. If one walks a bit to a higher point, he/she would get a view of some thickness. If he/she climbed up further, he/she could look out to a majestic view of the mountains, and so on. The site is about 300 square meters large, in which Ishigami designed a spacious garden. In order to plant numerous large trees, he made the plan as small as he could. Then toward creating a varied residential environment this became a house with as many storeys as could be allowed. As a result, it became an 11-storey-height building, each floor being just as large as six-mat tatami room (3m x 4m). There is no elevator, thus, most all of daily living needs can be met within the lower levels. The upper levels are like a nice place to go on a day off, when people feel like taking the walk up, going just as far as they want. It means this 11-storey-height building is treated as one house, so the stairway is a kind of vertical corridor which connects a room to the other room. Besides, since the rooms are divided by the stairway, the location of stairs would be made in relation to the inner organization of rooms.

Chapel of Saint Peter, Paulo Mendes da Rocha

The Chapel of Saint Peter in Campos de Jordio in São Paulo designed by Paulo Mendes da Rocha. By constructing the chapel of concrete, glass, and stone, Mendes da Rocha creates the sense of strength and simplicity. Religious spaces flow around a single massive column at the center. A two-story glass facade looks out over a reflecting pool to the distant Mantiquera mountain peaks. The idea of stair design was added on top of these gestures creating a divine atmosphere. The promenade style of circulation inside the chapels leads people from the ground floor to upper floor level giving a chance to experience its spatial scenario.

David Museum, Rafael Moneo, 1989-1993

The David Museum at Wellesley College is a repository of a college art collection donated by the alumni, which had to be conceived as an extension of the Jewett Arts Center designed by Paul Rudolph. Rafael Moneo planned to activate the void inside, with "limited architectural means." The bold volumetric setup for making a coffer outside, two sets of stairways here, two sets of stairways. In the void, a series of different levels were established by stairs. Especially the double stairway system provides the double access, so people can have freedom to enter various sides of different levels were established by stairs. Especially the double stairway system provides the double access, so people can have freedom to enter various sides.
Aronoff Guest House, Eric Owen Moss, 1991

This house is located on the slope site of the Santa Monica Mountains. The main purpose of this building is guesthouse, but also is designed for the viewing platform. The project contains three floors: the top-level studio/executive offices for the owners; an office floor at grade for a business with three employees, and a separate apartment below for an elderly father. These floors are designed as an extended platform which is a portion of the stairs. It is accessible from all levels via a stair that runs along the perimeter of the house.

Apollo School, Herman Hertzberger, 1980

Hertzberger was interested in a multi-purpose space or furniture instead of satisfying a monofunctional use. He sometimes designed oversized runs of stairs, deep window-sills, or huge column bases where people can occupy this space for sitting or chatting. This approach remains a choice for users to create their own scenario of their space. In this Apollo school, a split level amphitheater-like organization, is not only used as seating for the entire school at informal and organized events, but also greatly increasing the range of visual contact. The steps offer the potential for individual activity such as bracket-like, chair-like, or bed-like. Hertzberger placed a human at the center of architecture. He explained the relationship between architecture and its environment.

Prada Newyork Epicenter, OMA

The total area of 23,000 sqft are distributed to both the basement and the ground floor. In order to connect these two levels, the roof steps downward in its entire width, creating a 'big wave' of stairs. As Hertzberger intentionally oversized runs of stairs, the downwards floor like steps is used as a place for an informal display surrounded by the display of shoes, bags, or clothes. People can sit on, browse through items, or try on the accessories. The additional aspect of this floor steps is its transformation into an auditorium when the opposite part is turned to a stage for performances.

3. OMA, El Croquis, n. 131/132
Riser Ratio, Basic Dimension of Stairs

Stage Stairs, 650:

Internal Domestic Stairs, 450:

Secondary Domestic Stairs, 370:

Standard Domestic Stairs, 300:

Various Depths of Stairs, Basic Dimension of Stair

The minimum depth of treads is 26cm in the case of a standard domestic stair. Treads over 26cm deep do not need a nosing. The length of landing should not be less than the unobstructed width of the stairs. In cases where more than one flight of stairs are used, the landing can be a second flight of stairs.

Various Depths of Stairs, Basic Dimension of Stair

The Width of stairs is determined by the number of people likely to use the stair at any one time.

60-95cm: one person, 110-130cm: two people, 170-190cm: three people.
Experiment 01
Fold the surface in two ways; same run of 30cm (upper) and same riser of 15cm (bottom).

Transition from Wall to Floor
Stairs share attributes of both the wall and floor. From the left to the right, the walls transform into staircases.

Catalogue of Stairs
Assume the 3m-length surface with three different widths; 60cm (one person), 120cm (two people), 180cm (three people).
The object is not a functional building but an assembly of stairs.

A composition of risers and runs, in other words, a compo

Distribute different kinds of widths of stairs from the catalogue.

A composition of risers and runs, in other words, a compo

a composition of walls and floors.

Suddivide the square with a 60cm grid module.
The Imaginative House (the diagram in the page 6) is realized in a 9m cubic box. This house is composed of 50 steps of stairs, of which the runs and risers creates various spaces in size and height. These steps provide furniture, circulations, rooms, gardens, and so on.
Human Bodies and Stairs

Le Corbusier's modular system for the scale of architectural proportion originated from the human body. He was inspired not only by the golden ratio from Vitruvius, but also by ergonomic studies applied to architecture and furniture. However, his kind of humanism was criticized by another branch of modernist in that period. As Mumford said, "The rigorists placed the mechanical functions of a building above its human functions: they neglected the feelings, the sentiments, and the interests of the person who was to occupy it. Instead of regarding engineering as a foundation for form, they treated it as an end." It is no exaggeration to say that the history of architecture is about the repetition of actions and counteractions toward humanism in buildings. For architects, who are in the midst of conflict between artistic aspiration and the duty to serve society, what does the 21st century humanism mean, fleshed out through architecture?
Design Process

Means of Development

Architecture has unique tools including sketches, models, drawings, or graphics to develop ideas. These tools have a complementary relationship. An idea developed through sketches is checked through building a model. The model sometimes proves the idea does not work. When we think something is beautiful, but when we make it, it appears totally different from what we think. When we think something is right, it repeats to build and repair. Only with a completion, a designer can realize what is wrong. Architectural work is like a hit-and-run attack. It repeats to build and repair. Only with a completion, a designer can realize what is wrong.
Study models with which fill a desk remind us the time of design processes. It is usual that final productions get the most attentions, but the final means one of the stages during the process. In the course of the process, a designer reaches the goal as closely as possible, but in either case, the perfect answer might not exist.
The entire process can be divided into 4 respective stages. Site analysis and massing studies come first. The second is named as an intuitional approach since the way of designing in this stage was relying on designer's intuition. The more a designer spends time on the project, the more the project is improved. However, this way of designing is difficult to have an methodology. Thus, systematic approach is followed. This approach doesn't guarantee a better result.
If successful, we can achieve a clear and powerful tool of design. Lastly, the purposeful approach is in effect of combining the advantages from both previous approaches; intuitive and systematic. The arrows explain how new ideas are created, improved, or discarded. The red frames indicate the moments which acquire a position as "a scheme" from alternatives or developments. Certain ideas that seem to be discarded sometimes reappear later and become integrated to new ideas.
Land Formation

As a first meeting with a thesis advisor, the presentation contains site analysis, thesis argument, and specific plan for the next few weeks. The site analysis gave the time to contemplate the importance of land. Since in this thesis proposal the relationship between land and building is very critical issue, the own architectural, philosophical, and physical definition on land can be an appropriate starting point of the project.
A design starts from when a designer perceive a land. Defining a boundary of a site can be creative than given.

A building is not an independent object, but a part of land. We treat land through a specific way: digging, reclaiming, inserting, and building. 

A change in topography by roads and buildings. 

Nature: 
Naturally formed condition.
Town Construction: 
Adjusted topography by roads and buildings.

Town Expansion: 
Considerable change of topography by buildings on a hill side.

Site Model 01 Site Model 02
Topographical condition before artificial intervention. 
Current condition of site with mega-structures and single family-housing on lower town.

Site Model 02: 
The elevation difference between mega-structures and single family-housing.
Design from its Topography

As a succession of the idea about land, the topographic lines directly become a base for a design. These lines guide circulations, programs, and enclosures. The transparent box mediates between the mega structures and single family housings on both sides. However, this idea seems too random to be improved.
Sketch 01
Original topographic lines before the buildings were constructed and the land was transformed.

Model 01
Restored land and a long building are mediating between two zones.

Program Distribution
Based on topo lines, different programs are distributed.

Sketch 02
The topo lines replace a conventional grid system.

Model 02
A long building is on naturally inclined land rather than artificially flattened land.

Circulations
Every 1.0m, paths for circulations on a same level connect from one side to the other.

Sketch 03
The enclosures based on a grid system are compared to natural topo lines.

Model 03
A long building contains public facilities which serve for two zones.

Enclosure
The red boxes are a long building in the middle and the lower level of existing apartments.
Design Process

5.3 2nd Design (26 Sep 2011)

Instead of improving the previous idea which used the topographical condition of the site as a guide line, a new approach takes a guide from urban context such as roads, buildings, and also topography. The whole site is and alternate chunk of void and solid, streets and buildings, public and private circulation and programs.
Proposal should help to restore the connection between two zones.

The blue extends from old town zone and the red is a module of apartment block. The blue extends from old town zone and the proposal is a boundary as well as a building. The blue extended from old town zone and the red is a module of apartment block. The blue extends from old town zone and the red is a module of apartment block. The blue extends from old town zone and the red is a module of apartment block. The blue extends from old town zone and the red is a module of apartment block.

Amenities: Apartment block has amenity facilities inside and it is self-sufficient system. Apartment block has amenity facilities inside and it is self-sufficient system.

Population: Around 1,800 families live in apartment block and 750 families live in the surrounded area. Around 1,800 families live in apartment block and 750 families live in the surrounded area.


Connectivity: Proposal is consisting of alternating void and solid so as to provide programs and circulation. Proposal is consisting of alternating void and solid so as to provide programs and circulation.

Erland 01

Erland 02

Erland 03

Erland 04

Proposed boundary is a boundary well as a building.
5.4 Committee Review (30 Sep, 2011)

Design Process

Alternatives of Massing Studies and Sectional Approaches

The 5 alternatives are distinguished based on the ways of sectional connection between single family housing on lower level and mega structure on upper level. Additionally, the parking lot under the apartments should be shared by two parties, thus both pedestrian circulation and vehicle circulation are all important. These massing studies help to narrow down a direction.
The white is newly added building and the ochre is existing parkings under the apartment.

The whole building is consisting of three different depths.

The pink (added building) and the blue (existing parkings) are connected in certain points.

The white (added building) is floating and covering into the apartment block bringing light under the mass.

The floating mass has different sizes of holes to open up.

The two masses are sectionally independent and have connections in certain points.

Threshold

Alt 01

Alt 02
Big open plaza under the floating mass is used for public events such as open market or else.

The parkings spread to entire site including the boundary and existing parkings.

The parkings spread to entire site including the boundary and existing parkings.

The parking spaces are divided into two levels and the programs connect those two levels.

The parking spaces are divided into two levels and the programs connect those two levels.

This sandwich concept begins with the idea of weaving programs and parkings.

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The pink is not necessarily cylindrical. This is more diagrammatic explanation.

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Parkings are divided into two levels and the programs connect those two levels.

Parkings are divided into two levels and the programs connect those two levels.

Two separate facades are connected by the public and commercial programs.

Two separate facades are connected by the public and commercial programs.

Secondary the planning is set up as log of pillar.

Secondary the planning is set up as log of pillar.

Plan Diagram

Plan Diagram

Section Diagram

Section Diagram

Axonometric Diagram

Axonometric Diagram

Axonometric Diagram

Section Diagram

Section Diagram

Plan Diagram

Plan Diagram

Axonometric Diagram

Axonometric Diagram
Interlocking Massing Model

Seemingly floating mass is supported from its pedestal.

Initial idea started from an idea of extension towards inside apartment block.

Sketch

Axonometric Diagram

Proposal seems a podium of mega structures.

Plan Diagram

The blue is openings and the white is apartment blocks on the podium.

Section Diagram

The parkings and programs are interlocking and create a huge outdoor space in between.

Strip

The boundary is consisting of several thin layers which have different heights.

Strip

The red is program and the white is circulation. The parkings is T shape.

Sketch

Initial idea started from an idea of extension towards inside apartment block.

Axonometric Diagram

Proposal seems a podium of mega structures.
As a whole, the strips become a mass. Functionally, the 3m strips are extended from the sectional ideas into the new model. The ideas of threshold, interlocking, and floating were selected to this new model. The programs are extended inside the apartment block, so that the urbanity can be brought into the block. The sketches on the right top show the sectional ideas from the previous alternative development analysis. The sixth massing model is a result of combining ideas. Through the study of alternatives, the advantages and disadvantages of each proposal can be analyzed.

The sectional views on the lower left show the sectional ideas connected to two zones. The Axonometric Diagram shows a view of the new model, where the strips become a mass.

Development

Development

Development

Section Diagram

Plan Diagram

Axonometric Diagram
Plan Diagrams
From the right to the left, +50, +45, +40, and +30 m level plans. The pink disappears and appears again.

Sections
From the left top to the right bottom, B, C, D, E, and F sections. Each cut has different situations of programs and spaces.

Plan Diagrams
From the right to the left: +50, +45, +40, and +30 m. The pink disappears and appears again.
A difference between a scheme and an alternative is that a scheme should have a system in a certain degree of completion. Therefore, a scheme can be achieved through the process of refinement. Once we have a scheme, we must not hesitate to demolish it again. Through repeating this completion and violence, the project goes more to the perfection.

In this week, the first scheme 'A' has a shape through extracting good aspects from each alternative.
Transverse Section 01

Void between masses

Transverse Section 02

Solid between stairs
Based on the analysis on conventional retail buildings, 5 categories of programs are suggested: pink-schooling, green-sports, orange-shopping, purple-medical, blue-service.

Program Definition

Scale Computation

A unit of conventional retail buildings and subdivided volumes.
A series of plans expressed with outlines and areas helps to understand the scale of buildings. Organizing programs and circulation of vehicles and people are main concerns in the plans.
Scheme A
The first scheme. The model correspond with plans and sections of void.

Scheme A
Clear view between two zone.

Scheme A
Whereas the size of regions are similar to adjacent small fabrics, the size of the whole react.

Scheme A
The elevation is also broken to pieces and consisting of void.
Deviant Alternative

Totally different idea is suggested out defiance to the definite grid system. Seemingly random stairs connect both sides creating a very 3-dimensional in-between space.

Plan View

Circulation Diagram

The blue is a main circulation which runs along the boundary and the pink is sub-circulation which starts from the main circulation.

Intertwine Circulation

Two main circulations are intersecting at certain points and creates unexpected space in-between.

Sketch

Two ideas are distinguished not only by the different forms, but also by the different hierarchy between the main and sub circulations.
Inserting Stairs to Scheme A

Since the scheme A was a result of massing studies, it was good at reflecting the urban context of the site, but weak at expressing the notion of stairs. The goal of this week is to revisit the idea of stairs. Instead of mechanical insertion of stairs, stairs should work to glue circulation system and spatial quality together. Slicing the elevation by every 1.0 meter allows to design with a section instead of with a plan. A way of construction sometimes governs a way of thinking.

Here, the question remains: "How can you justify the stairs which cover everywhere?"

A way of construction sometimes governs a way of thinking. Since the scheme A was a result of massing studies, it was good at reflecting the urban context of the site, but weak at expressing the notion of stairs. The goal of this week is to revisit the idea of stairs. Instead of mechanical insertion of stairs, stairs should work to glue circulation system and spatial quality together. Slicing the elevation by every 1.0 meter allows to design with a section instead of with a plan. A way of construction sometimes governs a way of thinking.
Two miniatures of mega building.

Main Stair

Main Stair has one direction from the right to the left. Stairs become, sometimes, roof, floor, or corridor.

Development Scheme

Composition of openings, segmented volumes, stairs, and existing mega structures, small.

Plan View

Main Stair pass one direction from the left to the right, roof, floor, or corridor.

Elevation

Elevation of mega building.
Transverse Section

Along the circulation, people move through inside and outside. The circulation is not only functional connection but also space. Thus, this continuous space becomes a room, plaza on the left top corner.

Sketch

One linear circulation and plaza on the left top corner. The idea of stairs is inserted, but a casual a little segment seems to disperse without a bandage which the project is tied together.
Longitudinal Sections

Curved corners help to close the space and to make a flow. Also, the stairs and slabs are treated as a part of land which is extended from the ground.
From Scheme A to Scheme B

Several steps of development, the scheme A has been finalized to scheme B, while two schemes share consideration.

Right size mediating between large and small urban fabrics, and realizing existing streets are also under consideration.

Stairs become circulations, programs, and public spaces. Additionally, the proportion between void and solid, the right size mediating between large and small urban fabrics, and realizing existing streets are also under consideration.

While two schemes share fundamental principles, scheme B is explained with two considerations. First, the connection between mega structures and old town (the lower and the upper levels); second, the volume is generated and managed by the notion of stairs. Through several steps of development, the scheme A has been finalized to scheme B, while two schemes share consideration.
Sketch 01
Starting to have two different strategies for the old town area and for the parking lots.

Sketch 02
The stair plaza on the left top corner clearly appears. The sectional Croquis on the right bottom explains the reason why the enclosure becomes bumpy.

Sketch 03
From a bumpy surface to adjacent brackets.

Sketch 04
Finalized version is ended up with an urban scale of stair plaza in the middle, one continuous circulation, radically arranged openings.
Stair Plaza
Urban scale of stairs.

Second Alternative
Appropriate balance between stairs and programs, void and solid, urban scale and human scale.

Interlocking into the Hill
The mass is not separate from the land, but digging into the hill side.

Void from Two Sides
Openings are created by cutting through from the top and from the side.
Elevation

The circulation moves up and down.

Plan View

Indicating two zones with a size, volume, and voids.

Third Alternative

A main and sub circulation well integrated. The main circulation is a loop which connects becomesoutside and inside.

Elevation

The circulation and programs are mixed and integrated.
Scheme B
1:300 scale physical model. Same scheme with the previous model in a different scale. The multi-layered elevation has depth.
The continuous circulation from the lower level and upper level surrounds the entire building.

The existing road is an important source of scale, direction, and orientation.
The series of plan diagrams from +36 to +59 show how the mass digs into the land. This is not only for conceptual discourse, but also for model construction.
Not only the mass digits into the land in plans, it does same thing in sections. The main circulation of a loop is always located on both sides.
A Stair Becomes a Generating Tool

Scheme B was appreciated to have a potential of completion. If the scheme would be improved under the same method, it seems feasible to achieve a certain degree of quality in terms of organization, form, and space. However, what is the purpose of the thesis? Can we focus on designing a good building or establishing a student's own methodology of design? Putting the scheme B aside, a radically different approach, so-called systematic approach, begins.
A grid system is brutally applied as a starting set up. The red is stair and the void is programs.

Adding one more layer on the grid system. The blue is a ramp which goes round.

Urban Map: Existing
The apartment block is an urban island. It has been inserted into an existing urban fabric.

Providing a little street such like a capillary.
Grid
- Reflecting the existing streets.

Size Transition
- The size of grid is gradually change from small to large.

Figure ground
- The void and solid are evenly distributed.

Level Transition
- The height of segments are also gradually higher from the old town to the apartment block.

Lamp
- The loop ties the little and linear stairs up together.

Stairs
- The gap between volumes is filled with stairs.
A sequence of sections shows the space underneath the main stair. Stairs and buildings are basically treated in a same way as a generating tool, stairs is not just integrated to the building. The stair and run of stairs are interpreted as a wall and floor.
The plan is a key map for a sequence of sectional perspective drawings on the next page. The section shows the building is interpreted as a kind of stairs.

The view from the upper level. The ramp is accessible by the people who have disabilities.

Partial Plan and Section

Loop ramp and existing road parallel to the ramp. Stairs becomes a plaza, a building and a gate.

Partial Perspective 01
Three elements of stairs, ramp, and buildings integrate into one. The proposal is too pixelated thus loses the strength of the previous studies which react as a podium to the apartment buildings.
Towards an Ultimate System

From the previous work, this systematic approach has been pursued to the end. The three partial models, in turn, 1:1,000, 1:500 and 1:300, were constructed by accumulation of each 1m, 0.5m and 0.25m thickness plates. 0.25 meter (250cm) is almost reach to a height of one stair, which means people can walk up and down between two plates as like ascending or descending stairs. This extreme way of slicing the elevation from +53.0m to +55.0m gives a chance to rethink the unit system. Dividing the elevation with one floor-height (about 3.0m) is a conventional notion. How does the trial of slicing every 0.25m change the design?
Stairs become the building itself. Stairs and building are not distinguished anymore.

The top is old town zone (lower level) and the bottom is apartment block (upper level).

Various size openings for the light issue are disperse.

Instead of designing stairs on flat surface, designing flat surfaces on the inclined surface like stairs.

The white is openings, the black is programs, and the rest of area is stairs.

The flat surfaces are for the programs or connections to the parkings.

Overlapped each level, the function is considered.

Section sketch helps to understand the space.

The horizontal lines represent every 0.25m elevation difference.

Section sketch helps to understand the space created by the plan diagrams.

The real area is stairs. The whole is openings, the block is programs, and various size openings for the light issue are.

When become the building block, stairs and build.
Since the site is covered with the inclined stairs, under the huge public plaza can be created. The openings bring the light into this plaza. People who live in the old town zone can access to the parking on the ground level through the plaza.
Three Different Scales
Each 1:150, 1:300, and 1:500 scale of models.

1:300 Scale It shows the architect's program, gates to the паркings, and open.

1:150 Scale Cores are extended from the existing parкing to the ground level.

1:150 Scale Rhythmical arrangement of halls and blocks. The proposal is read con-
The relationships of existing car load, old town, and apartment blocks. The inclined surface has various kinds and contains programs. The atmosphere of the plaza under the stairs is like half-indoor and half-outdoor.
The indoor spaces looks floating over the plaza. A clear structural strategy is required in this stage.
Contour Pieces

The plates have 0.25 thickness and the floors have 3.0m height.

A simple method of accumulation pieces every 0.25m.
Perspective 01
The view from the existing car road on the level +41m.

Perspective 02
The view from the existing car road. The view from the ground level.

Perspective 03
The view from the old town area to the ground. Looking towards the gate going through the lower levels of the apartments.

The opposite side of apartment.

Perspective 04
Perspective 05
Perspective 06
The view from the parking lots to the outside.

Perspective 07
Perspective 08
Looking to a gate going through the lower levels. The opposite side of apartment.

Perspective 09
Perspective 10
The view from the existing car road on the level.
Hierarchical Design

Although the systematic way has various advantages, it easily becomes too mechanical. It is important to maintain clear intention. Instead of treating all the parts in a same way no matter of the size or function, this purposeful approach puts emphasis on certain parts.

Although the systematic way has various advantages, it easily becomes too mechanical. It is important to maintain clear intention. Instead of treating all the parts in a same way no matter of the size or function, this purposeful approach puts emphasis on certain parts.
Hierarchical Design 01
Building integrated with urban context. The green is flowing through the building.

Hierarchical Design 02
A strong axis governs the whole.

Hierarchical Design 03
The buildings and streets have various sizes. The main circulation is continuous by sub circulations.

Hierarchical Design 04
A strong urban gesture with a form. This is more architectural scale than urban scale since it is read as an object rather than a group. This is more architectural scale than urban scale since it is read as an object rather than a group.

Hierarchical Design 05
The buildings and streets have various sizes. The main circulation is continuous by sub circulations.
Hierarchical Design 01
Introducing diagonal lines from existing road system.

Hierarchical Design 02
Embracing the existing car road into the whole building.

Hierarchical Design 03
Vertical circulation cores are dispersed.

Hierarchical Design 04
Zooming out and rethinking the site condition.

Hierarchical Design 05
Unrealized idea which has large openings. The blue is an architectural object.
Hierarchical Design 01

Deleting existing context buildings to create green area.

The size of buildings vary, but all the parts are dispersed.
Hierarchical Design 02
Moving up the block so that there is space created.

Hierarchical Design 02
The main axis and sub accesses are intersecting in different levels.

Hierarchical Design 01
From the top left to the bottom right: +35, +38, +41, +44, +47, +50 level plan. The pink represents how the main axis can be extended into the surrounded context on each level.
The main axis is gradually ascending. The sizes of buildings vary, but still the division seems relatively even. Between the buildings, people can access to the main axis or go through to the parking lot. The parking is also accessible from the existing road level (on the left).

Hierarchical Design 02

The main axis is gradually ascending. The sizes of buildings vary, but still the division seems relatively even. Between the buildings, people can access to the main axis or go through to the parking lot. The parking is also accessible from the existing road level (on the left).

Hierarchical Design 02

Hierarchical Design 02
Each level has not only different sizes but also different characteristics. The organization, inclination, programs should be also different in order to create variety.
The access through the building and the plaza.

The main circulation becomes plaza, seating, narrow and deep halls, and green area in turn.

Each building has different programmatic usage: library, medical, commercial, and child care. Each stair has different function: shortcut, plaza, seating, and green.

The main circulation becomes plaza, seating, narrow and deep halls, and green area in turn.
Hierarchical Design 04

Mediating between the mega structure and the old town.

Mediating between the existing car road and the main circulation.

Master Plan
Hierarchical Design 04

The view of the main circulation surrounded by two bars on both sides.

Hierarchical Design 04

The openings along the existing road. The blue is vertical circulation.

Hierarchical Design 04

Two bars surround the main circulation in between being connected and disconnected on the ground level and upper level as well. The photo taken before the upper floating mass is constructed.
The proposed building consists of two vertical circulations, two bars on both sides. The main circulation is gradually ascending from the level of the old town to the level of the apartment. The parking lots under the main circulation and sub-circulations under, over, and on the main circulation penetrate in several points.
05 Design Process
5.11 7th Deskrit (30. Nov. 2011 and 03. Dec. 2011)

Logicalizing and Characterizing

Based on the Scheme 'D' which was set last week, this scheme should be presented with a clear parti and rich characters. Without a parti, the project can not have the own identity. Only with a parti, the project is not different from a diagram.
Formation 01
Existing condition of the site.
Programs
Public, retail, medical, and child care.

Formation 02
Manipulation of the land. The red is the existing land.
Circulation
The main circulation and sub-circulations are intertwined.

Formation 03
The blue is inserted programs and the purple is the open spaces.
Plaza
Each level has different sizes and functions of outdoor spaces.

Formation 04
The open spaces.
Interior
The main circulation and sub-circulations are intertwined.
Programs
Public, retail, medical, and child care.

Formation 05
The blue is inserted programs and the purple is the open spaces.
Interior
The blue is inserted programs and the purple is the open spaces.
Programs
Public, retail, medical, and child care.

Formation 06
The red is the existing land. The red is the existing land.
Exterior
Creation of the land. The red is the existing land.

Formation 07
Exterior
Creation of the land. The red is the existing land.

Floors of parking lots are located under the building.

From the left to the right: +35, +38, +41, +44, +47 level. The blue arrows are access points for pedestrians and the red arrows are those for vehicles. Total 5 floors of parking lots are located under the building.
Building C
The buildings from A to G contain different facilities depending on their sizes and locations. Many of these are public programs which can serve both zones of the old town and apartment block.
On the lower level, as a gate to the building, huge open space is proposed. The floating mass is a public library and the theater plaza is located right next to this plaza.
The huge stair is transformed into a seating area while the performance or event takes place. After ascending the Theater Plaza, people can move to the apartment building to move down to the old town or keep to walk up along the main circulation.
This is a good view toward the old town.

The upper floor of the main circulation is consisting of several steps of green area. Randomly small site of masses are located on this green area. This plaza...
The lower level of the apartment is replaced with a child care center. Consequently, the open space next to the child care center can be used as a playground.
5.12 Pre-Final Review (09. Dec. 2011)

Presentation with a Mock-up Panel
The main circulation is named as a 'stair plaza' which is surrounded by thresholds on both sides. The stair plaza is not only a circulation but also a place where public events can take place in this town.
Perspective 04
The view of existing car road towards the apartment

Perspective 05
The view of existing car road towards the old town.

Perspective 06
The buildings create the sub-circulations by blocking and opening the views from the stair plaza. The blue is a vertical circulation, the scale of elevation is mediating between the old town and the new plaza. The concept of threshold is clearly appearing in the plan view. The developed scheme from the previous studies, the concept of threshold is clearly apparent.
The chunk in the middle of the parking is existing founda-
on the ground level through the parking lots. From the left to the right, threshold, stair plaza and threshold are located.

The partial model is made of same material with the final model. It helps to decide the scale of final model.

The blue form is vertical circulations which are extended to the ground level through the parking lots.

Transverse Section

1:150 scale
Bibliography
2. Eckhard Schneider, *Rachel Whiteread*, K61n: Kunsthaus Bregenz, 2005