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**Master of Science in Architectural Engineering**

**A Public Space  
Generated Design Study  
for a New Station Complex**

**by**

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February 2013



## **Abstract**

# **A Public Space Generated Design Study for a New Station Complex**

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The term ‘public’ seems to have very ambiguous meaning, and nobody can clearly explain that meaning. In other words, due to the various and ambiguous meaning, the term ‘public space’ can be understood differently depending on the situation. Based on this fact, the purpose of this thesis is to shed new light on the notion of public space today through the KTX Suseo station complex project.

To achieve this purpose, the characteristic of public space in station complex is examined through the case study of the Seoul Station Complex, and then the design experiment of Les Halles architectural competition is identified to frame design study hypothesis. Based on design study hypothesis, the situation and condition that should be based on a public area or surface are proposed through the design project rather than the physical public space. It does not imply the uselessness of physical public space, but it is experimented the evolved public space in the contemporary

era. The more complex our society, the more public space should be transformed, evolved and adapted, and design study for generating public space in this thesis can give a new direction for the new evolved public space.

**Keywords:** Public Space, Design Study Hypothesis, Station Complex

**Student Number:** 2011-20587

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# The Structure of Thesis

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Chapter_2	Consideration / Case Study	Korea Society / Railway Station in Korea	2.1 The Public Domain of Korean Stations 2.2 Case Study_The Seoul Station Complex 2.3 Summary
Chapter_3	Design Study Hypothesis	Les Halles in Paris Competition / Design Theory	3.1 Les Halles in Paris Architectural Competition 3.2 Design Theory Behind Generating Public Space 3.3 Summary
Chapter_4	Design Process	The KTX Suseo Station Complex	4.1 Phase 1_Territory Organization 4.2 Phase 2_Generating Programmatic Tension 4.3 Phase 3_Circulation Nodes 4.4 Summary
Chapter_5	Conclusion		5.1 Conclusion

# **Chapter1. Introduction / Background**

## **1.1 Change in Society**

This thesis aims to shed new light on the notion of contemporary public space. Public space is a term that has existed in our common lexicon since the beginning of the first urban settlements. However, contrary to the general perception, public space is not a static entity but a changing condition which evolves and adapts depending on the period. In particular, the nature of public space is related to the nature of the city. That is, as the nature of the city has changed, the nature of public space has also evolved.

Typically the city has been identified by some elements: the size of population, the density of settlement, the heterogeneity of its inhabitants, and its political situations. Based on these elements, the ancient city has been judged as an association in which people participate by playing different roles to construct a political community, and the medieval city was a fusion of the garrison and the market, indicating the defensive and economic functions of cities as well as their political and legal autonomy.<sup>1</sup> In the ancient times, the primary examples of public space was the Agora in Greece and the Forum in Rome; While in the Medieval city, the square was identified as the most important public space of the city. These public spaces were a focal point where politics, cultural performance, and

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<sup>1</sup>Ali Madanipour, 'Whose Public Space?', Routledge, 2010, p5

socialization all took place. As a result, the Ancient and Medieval cities had a physical public space not only to reveal the political domain but also to integrate their society. Even if these public spaces had a limited accessibility based on the class of citizens, people seemed to recognize what public space was. However, following industrialization and modernization, the characteristic of the city and public space have drastically changed.

Since the late 19th century, the world has been undergoing a period of rapid advancement of scientific transformations with modernization, and this modernization has affected major human modes of life. As a result of these upheavals, the world is undergoing major ecological problems today which ironically, people try to also resolve simply with techno-scientific advances and neglect social ecological changes. With social ecology, the solutions of social change in human modes of life are requested to be not only techno-scientific, but also in a social, spatial, and environmental manner.

The changing human modes of life can be understood through public spaces because they represent a space that shows human modes of life as well as a changing of social structure. The Dutch architect and theorist, Raoul Bunschoten, is a figure who has been researching this issue from a different perspective. Raoul Bunschoten's position maintains that public spaces are instruments of change for a society, they are singular, they create an identity, and they must be able to stimulate the evolution of all kinds of parts of a society. He maintains that the attention to public space seems to

be a natural question reflecting the problem of a rapidly changing society.<sup>2</sup> Therefore, the attention to public space has to be an indispensable question to find a social ecological resolution. Hence, to understand the attention to public space, planners and architects should consider the social changes which have the effect and impact on the quality and status of public space.

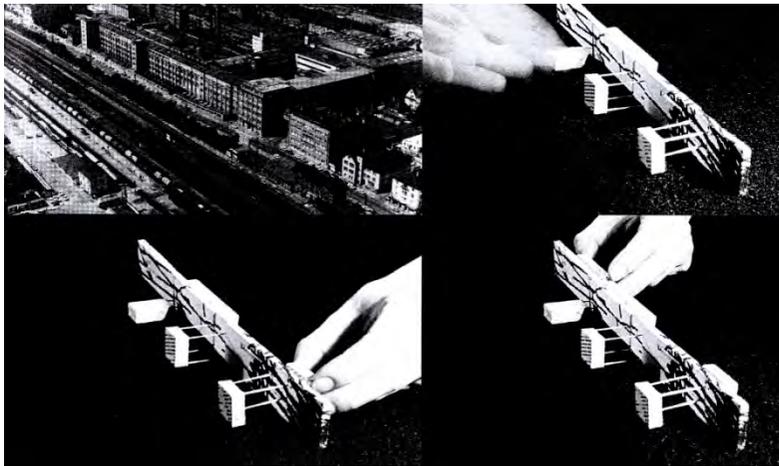


Figure.1-1. Salamander Factory-Raoul Bunschoten.<sup>3</sup>

To understand these positions, it is important to first outline the main criteria that govern the evolution of public space today. First, one of the main social changes that affect the subject is the rapidly changing economy. In the western world, following the end of Second World War, public projects, such as high-rise public housing, motorways, and new towns, were

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<sup>2</sup> Raoul Bunschoten, *Public Space*, Black Dog Pub, 2002, p5

<sup>3</sup> The project is about restructuring the empty factory as urban public space. The city has been marred by this empty factory as well as by a fast railway link running through it. However, the project become an architectural and infrastructural spine in a city that plays a key role in the social, cultural, and economic link-up of the city and the new urban complex into a new city part.

developed by the state in order to reconstructing a society until the 1960's. However, in the 1970's the world economy gradually declined, public projects funded by the state were stopped and reduced in size and scope. Since then, urban development including public projects were gradually transferred to the private sector. In tandem with the decline of the economy, the nature of public space transformed to what it is today; they are now fully integrated into the private economy domain. Resulting in public spaces have lost their own nature and have gradually been controlled by the private-sector.<sup>4</sup>

Specifically I wish to consider the case of Korea where the change of economy in history is a little different from the western case, but recently, the nature of public space caused by the ever present theme to globalization is very similar to that all over the world. In 1960, during the postwar period, in contrast with the western case, Korean society was inexperienced in the process of democratization and lacked social consensus among the nation, capital, and labor force to implement this transition. Even if many pro-democracy movements arose from 1960 to early 1980, some governments dictatorially ruled over Korea. Since the mid-1980's, the nature of Korea's economy had changed because of its democratization and trade liberalization in 1987, and since the 1990's, a local self-governing system has been operated, so the local governments were liberated from the central government. Then, the advancement towards neo-liberalism, which focuses

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<sup>4</sup> Ali Madanipour, 'Whose Public Space?', Routledge, 2010, p2~4

on urban branding more than the urban management, has appeared in the local governments. Since the IMF crisis in 1997, attracting foreign capital has gradually out become one of the most important strategies to growing on urban economy; and at the same time, the privatization of public service is also becoming an important strategy because government cannot manage public services well in the wake of the 1997 IMF financial crisis. For this economical reason, public space switched to be controlled by private management, and following this privatization phenomenon, the nature of public space in Korea has changed into the commercialized space. It is because private sectors, which want to return on their investment, make a commercial facility to make a profit in public spaces.



Fig.1-2. The Privatization of Public Space\_ A Shopping Mall in Seoul Station.

Integral to the transformation of the public domain in Korea has been the vertiginous advancement in technology, especially new telecommunication technologies that have revolutionized the way we socially integrate. In relation to the role of public space for most of urban history, the primary public spaces of the city were the core of urban society, integrating the political, economic, social, and cultural activities of a small and relatively coherent urban population, such as the agora and market square.<sup>5</sup> However, as science and technology developed, the way of communication by people has not been developed but changed as an individualistic phenomenon. New social networks have undeniably affected the way we socially engage with space, and based on anonymous relationships, social networks over the internet, smart phones, computers, and virtual reality encourage people isolated from physical environments. This narcissistic individualism based on communication technology development eventually leads to mutate the public space, which had supported social integration.



Fig.1-3. The New Communication Technologies that are Causing Individualization.

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<sup>5</sup> Ali Madanipour, 'Whose Public Space?', Routledge, 2010, p5~6

In terms of urbanization, globalization, and tourism, mobility is also a key factor in understanding the changes of society. It represents how societies around the world are becoming more complex and diversified. Public space historically encompassed a local area within narrow limits. Contemporary public spaces have been affected by mobility, so public spaces such as streets, parks, and squares do not play a role in satisfying the social changes. Asian continent especially is dramatically experiencing phenomena such as urbanization, globalization, and tourism, and megacities and huge urban infrastructures have emerged in Asia. Compared to the past, the scope of people's life patterns are widening, and the scope of public spaces are also widening.



Fig.1-4. By the Mobilized Life in Modern Society, the Concept of the Public has Changed.

In 18c, Giambattista Nolli(1701-1756)made a Nolli plan, which is an ichnographic plan map of Rome, in contrast to a bird's eye view that was used in other maps of Rome. In particular, the relationship between public space and private space in the Nolli plan was expressed by solid and void, figure and ground. (Fig.5) It means that the relationship between the public and the private is understood clearly. In architecture, the public space is still thought as the Nolli plan. However, the reality is that there are so many examples showing the confusing situation of public space (Fig.6).According to this background from the global phenomenon for public space, we need to reconsider what public space is today in architecture and relate it to contemporary rather than dated historical notions. In particular, I chose a specific site, in which the public has dramatically challenged, and then through design project, focusing on the notion of public space, this thesis can suggest not a solution but an alternative for the new concept of public space.



Fig.1-5. The Nolli plan.

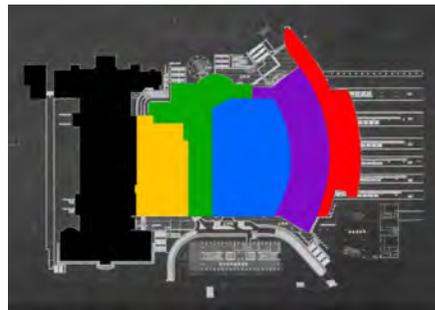


Fig.1-6. Seoul station is highlighted by different colors according to program division.

## 1.2 Public Space in Architecture.

### 1.2.1 The Notion of Public

The word ‘public’ tended to be easily used has often been used and quoted in different fields. However, it has a very ambiguous meaning, and nobody can clearly explain what it means. Due to the various and ambiguous meanings that public has, it can be understood differently depending on the situation. Hence, I go back to the basic meaning of the word and try to define it and rethink about what ‘public’ and ‘space’ mean in terms of architecture.

Firstly, among many unclear meanings of public, the public can be divided into three main categories: official, common, and open.<sup>6</sup>

The first meaning of ‘public’ is about being official. The ‘official’ meaning of ‘public’ suggests a form of law or policy which acts regulator for people. It can be explained in terms of words such as a public service, public investment and public education. There are three examples that are relevant to this category: *four-river refurbishment project*, *Cheonggyecheon restoration project* and *national security policy*. In contrast to its concept, a private service, private education and private acting are relevant. As a result, public being official implies the meaning of authority and obligation.

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<sup>6</sup> Junichi Saito, 민주적 공공성, (윤대석, 류수연, 윤미란 옮김), 이음, 2009, p18~19

Secondly, the word public has a meaning of 'common'. This meaning of public is relevant to the public interests such as a public welfare, public order and public standard. For example, social insurance and welfare policy are included in to this category. This term of 'public' has not only the positive meaning that expresses a neutral situation, but also the negative meaning that expresses a congregative power.

Thirdly, the term 'public' contains the definition of 'openness' of which is adequate to space and information. The 'openness' means that the users can freely access to space and information at any time; for example, a public park and 'Disclosure of Information Act'

These three general meanings of public have complexly influenced a concept of 'public space' in architecture. Because it is so complex, it is not understood what public space clearly is. Hence, it is necessary to rethink of what public space is in architecture based on the concept of openness among the three general meanings. The next section covers why public space in architecture is misunderstood in relation to the general meanings of public.

Table 1-1. The Three General Meaning of Public

	<b>Official</b>	<b>Common</b>	<b>Open</b>
<b>Keyword</b>	Authority, Obligation	Meeting , Social Dimension	Not walled or gated something
<b>Meaning</b>	the forms of law or policy which are acting by nation target in people	Common thing that is related to someone.	A space or information that is approached freely.
<b>Examples</b>	A public service / A public investment / A public education	A public welfare / A (public) order / Public standard	Public spaces / Public information

## 1.2.2 The Interpretation of Space Based on the Term ‘Public’

### (1) The Confusion on the Meaning of Public

Even if the term ‘public’ has been used to the meaning of ‘openness’ in architecture, people has perceived public space as a condition mixed with the three categories; official, common, and open. For example, government offices have usually been judged as a public space; nevertheless, they relate to the meaning of ‘official’. That is, they should rather be judged as a ‘public facility’ than ‘public space’. For another example, sometimes a gated apartment complex is considered as a public space because of a huge open space within. However, in terms of the term ‘public’ the nature of apartment complex is closed in the notion of community space, not a public space. It is because the meaning of openness in this case, is restricted to

people who dwell in apartment complexes. That is, these like government offices or apartment complexes seem to have a potential to be public space. However, if these places are not open to all fitting only with the term ‘official’ and ‘common’, then they cannot be a real public space that is open to all.

## (2) The Quality of Space by the Term ‘Openness’

Although some places have a feature of ‘openness’, not every places can be public space. In other words, when we see public space, we have to consider the quality of space. First, the terms ‘open’ and ‘empty’ have to be distinct from each other when public space is judged. The term ‘empty’ indicates the place which is made with the concept of openness, but ‘empty’ in this case is not used the way it is originally intended to be used. It is used to express when open spaces lose its vitality because they do not make a relationship with its surrounding environment. Second, the term ‘abandoned’ is also distinct from the word ‘open’. When some places lose their own function and then are abandoned, they abruptly emerge openness. However, even if they have openness, these spaces do not have an intention to be public. As a result, public space that is recognized as ‘open’ space has a certain limit. It is because through the word ‘openness’, we can only approach the public space as a typological meaning. The ‘openness’ is the one of the scopes to understand what public space is. That is, when we think about public space, the quality of space has to be considered in

various ways.



Fig.1-7. The 'Empty' Space in Back of Seoul Station.



Fig.1-8. The 'Abandoned' Space near the Jichuk Station.

We covered the ambiguous notion of public, and then defined it into the three categories; official, common, and openness. Although, the meaning of public should be understood as the openness in architecture, we have often confused what public space is. As stated, it is because the term 'public' and 'space' are misunderstood, misinterpreted or overestimated. Based on these considerations, I proposed three frames how to see public space in architecture.

### **1.2.3 The Feature of Public Space in Architecture**

There are many types of public space in urban area, and compared to other space like office, commercial and residence, it is difficult not only to define what public space is, but also to evaluate if it is good or bad.

However, as Raoul Bunschoten said that public spaces are instruments of change for a society, they play a crucial role to make a society in various ways. In that sense, architects and planners have to understand the feature of public space because they are main actors to make a society. Based on two above sections that covered the meaning of public, I propose the three feature of public space in architecture.

(1) The Openness.

As covered, in architecture, openness is the core meaning of public among the three categories of the public. However, openness relate with not only the term 'public', but also the term 'space'. Firstly, in terms of the 'public', openness means the equality of people. It means that in public space, people cannot be judged by the utilitarianism. Second, in terms of the 'space', openness means that the liberty of accessibility without a walled or a gated gesture. As a result, openness relates with equality and accessibility. That is, whether a huge scale or a small scale, public spaces have to take on the equality as well as the liberty of accessibility.

(2) The Non-boundary Space

Based on the notion of openness, public space is a non-boundary space which does not indicate a specific program, function, or place. In relation to this, Charles Taylor who is a Canadian philosopher stated that the public sphere transcends topical spaces, and we might say that it knits together a

plurality of such spaces into one larger space of no assembly.<sup>7</sup> In other words, the non-boundary concept of public space goes for every place regardless of programs, functions, or scales. Eventually, when we see a public space, the will, power of public or openness is more important than specific programs and scales in place.

### (3) The space of relationship

To be a non-boundary space, public space should be the space of relationship. In fact, the term “openness” already implies a meaning of relationship because the equality is the precondition of openness. It means that by the equality, many different elements can gather in public space, and then these different elements naturally make a relationship among them. In other words, the term “openness” has to be a way to make a public space, not to be a purpose to make a public space, and public space can become a multi-layered space through relationships, which are based on the openness. As a result, through relationships, public space is to be a non-boundary space beyond program, function and place.

## **1.2.4 The Potential of In-between Space as Public Space in Architecture**

Based on the study, we can identify that the most important thing about public space today is not only physical ‘public space’ itself, but also the

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<sup>7</sup> Charles Taylor, *Liberal Politics and the Public Sphere in philosophical Arguments*, Harvard University Press, 1995, p263

potential to make a sense of shared space which transcend the physical space. In fact, public space is not a static entity and a program like office, residence, and commercial. In addition, if open space is understood a one entity, it can be an empty space. It is because the term 'open' itself cannot be the purpose of public space. It means that public space should be used by people based on the openness, not be made the open space for people. Extremely all the places, even private territories have a potential to be public space if they can be used by people based on the openness. As a result, regardless of places public space in urban should be revealed within the interaction of various elements. In particular, in this thesis it is focused on the relationship between space and program to make a public space.

In terms of public space, program has a crucial key factor to make a public space. It is because first, program is not the same thing as function. It is more than function because program is not direct and has more than one voice. Program is less because it is defines by actions and activities and not by conventions. Programs are also mutable, transformable in time.<sup>8</sup> It means that programs and a relationship between programs do not have fixed character, but they can denaturalize their feature depending on the condition and situation. In terms of public space, this character of program give an opportunity to emerged a public space within a tension among programs. Second, program has not only flexible character, but also it gives a character to its surrounding environment. In particular, in the relationship

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<sup>8</sup> Manuel Gausa, the metapolis dictionary of advanced architecture, Actar, 2003, p499

between inner and outer, program makes a different situation, and by this, between users and urban area, program plays a role as mediator to make a relationship. It means that program makes a position assumed by an acting subject in inner space, and by the outer program makes a situation as the state of thing in which the subject acts. Therefore, depending on in or out, program make a different relationship between user, program, and urban.

These two characters of program should facilitate that public space can be made based on the relationship oriented, not a just one entity. In particular, program plays a role to make a user's activity in different situation, program, and space. That's why it is focused on the important of program as public space in this thesis.

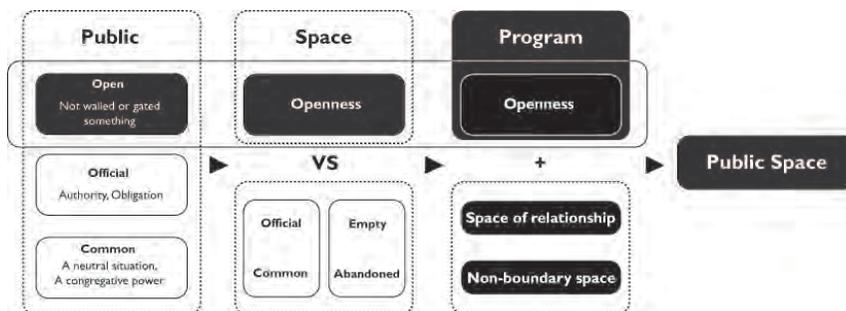


Fig.1-9. The Consideration of How to be a public space.

### 1.3 Public Space in Station

In my thesis, I do an experiment with a new notion of public space in a

station complex as the design project because the station is the most critical public space, which mirrors the changes of society. Before designing the project, we have to see how to change the character of a station from a public view.

First, as our cities are becoming more urbanized, the station has changed from a place of movement into a place of living. Hence, a station plays a role to connect with different regions as well as its surroundings, so it reflects the character and identity of the society as public space. Eventually, as more cities become urbanized, the station plays a more crucial role as a public space and a place of urban dwelling, not just a place where people pass through.

Second, recently, the nature of a station has essentially changed because of privatization, which means the management of the station transferred from the public sector to the private sector. The private sector wants to seek a profit, so the character of the station has become ambiguous. The relationship between the public and the private in a station has also been changed and ultimately ambiguous.

Third, our society has been affected by mobility because of urbanization. A station, as the most affected space for mobility, requests so many programs to satisfy the mobilized society such as transportation, shopping, and accommodation. In relation to request for multifunctional space, the relationship between public space and various functions in a station also has revealed unpredictable phenomena compared to past stations.

As a station in modern society has taken on the most complex and capitalist character among public spaces, a station should be a social space that relates to users, management systems, and urban space itself. Thus, in this thesis, through the design of the new KTX Suseo Station I propose an experiment for public space to satisfy various changes in society.

## **1.4 Suseo Station**

The KTX Suseo Station is a high-speed railway station which is under construction. The line will become part of the KTX system, and will provide an alternative Seoul terminus for Gyeongbu KTX and Honam KTX services to Mokpo and Busan from Seoul. Once the line is completed, the expected travel time will be 1 hour 59 minutes from Suseo to Busan, and 1 hour 49 minutes from Suseo to Mokpo.

The site for New KTX Suseo station complex is located between Sungnam and Seoul. The Greenbelt area surrounds the site, and the Tancheon stream runs through along side of the site. Recently, as wide range areas near the site have been developed from agriculture areas into new towns, these areas near the site have rapidly urbanized. In terms of local scale, the KTX Suseo station complex will be developed as a new public space on a mega-scale to that supports the public life in the new town areas. As a mega public space, it will play a role not only to support the public life

near urbanized area in terms of local scale, but also to serve various programs and activities in terms of a nation wide scale.



Fig.1-10. The Boundary Condition of Site 1  
/ Between Mountains and River.



Fig.1-11. The Boundary Condition of Site 2  
/ Between Urban and Nature.

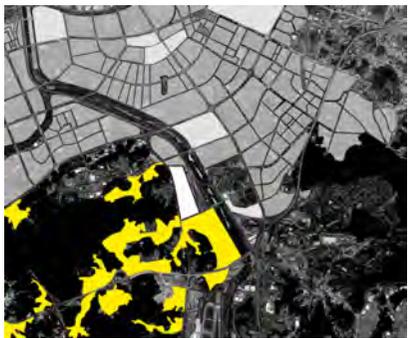


Fig.1-12. The Boundary Condition of Site 3  
/ Between Urban and Agriculture.



Fig.1-13. The Boundary Condition of Site 4  
/ Between Neighborhood and Nation scale.

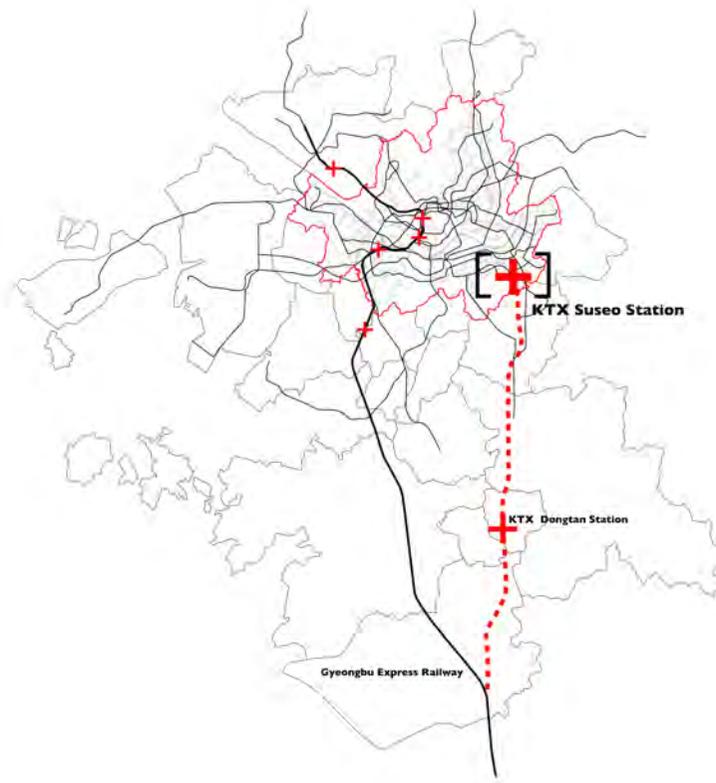


Fig.1-14. The New Development Plan of KTX Railway and Suseo Station complex.

The KTX Suseo station will be developed as the biggest development of all time with a six times the scale of Seoul station complex and including various programs such as commercial, cultural, sports, and accommodation. As a result, the relationship between public space and new programs is crucial, and the new design process to generating of public space has to be demanded. In this sense, I propose design process to make a new public space on the mixed use development site that will support the public life in terms of local and nation wide scale.

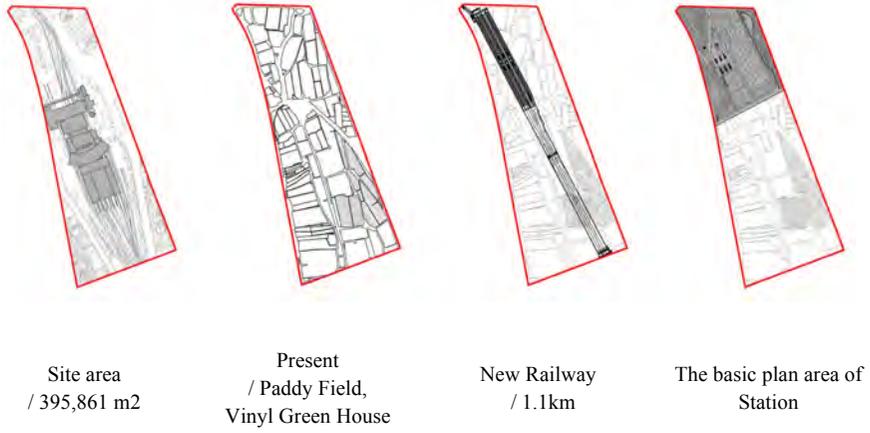


Fig.1-15. The General Information of Site.

## Chapter 2. Railway Station in Korea

After the 1980's, the stations had become privatized, and had become crucial spaces in cities rather than just transportation facilities. As other means of transportations developed, and the increase in mobility caused the urbanization and stations played roles as hubs. Various programs in station complexes had also come to support local society.

However, the nature of station as public spaces had been experiencing rapid change by privatization. The commercial facilities had physically expanded, and the parking lots had also expanded to support other facilities. By comparison, the cultural facilities took up a small area, and stations were isolated from other facilities. These phenomena seem to affect inner spaces, outer spaces, circulation, and relationships between in and out.

In Chapter 2, the challenge is comparison how public space changed in Korea and how stations as public space worked in Korea, and then identifying phenomena how public space in the Seoul Station Complex changed and where public space is considered in the Seoul Station Complex.

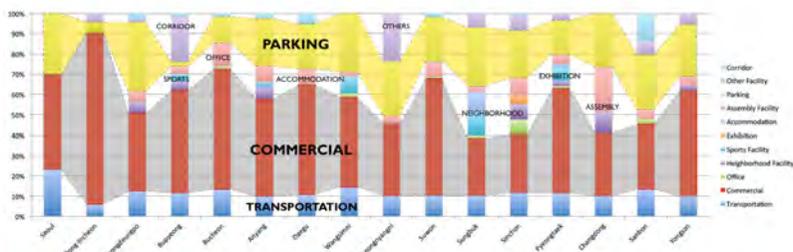


Fig.2-1. After the 1980's, the facility scale of station complexes in Korea.

## **2.1 The Public Domain of Korean Stations**

### **2.1.1 General Characteristics of Public Space in Korea**

As stated in the Section 1, public space is a non-bounded space which is formed through relationships among programs and users and is based on the openness. In other words, we can find a potential to be public spaces with relationships between various areas and programs, and then if they combine with openness and the activity of users, they can become a proper public space.

Based on this definition of public space, the Korean traditional street before the Japanese colonial era had value as a public space which was related to many spatial elements; walls, yards, streets, and neighbor buildings. That is, it was a non-boundary public space which was formed through the variable relationships between private areas and public areas. However, the Japanese colonial government changed the Korean traditional street into the commercial boulevard and new urban axis. It caused the enclosing Korean traditional space with its unique spatial characters to completely changed into the outward spatial character that directly faced the street.<sup>9</sup>

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<sup>9</sup> Depending on the views of different academic fields, the commercial main roads which were made by the Japan colonial government are thought to be a first public space as a commercialized street in Korea. / 류제홍, 공공공간의 진화와 공간 페러다임의 변화, 문화예술교육연구 vol.2, 2007, p6

In the course of modernization since 1945, we can also see the character of changing public spaces in Korea. Firstly, most projects to modernize were developed for the economic growth and dictatorial power and not for the public. It means that these projects lacked a sense of citizen which is based on the public. Secondly, the developed area was disconnected with its surrounding environment because they just formed a huge space without consideration to urban activity. Hence, public space in large-scaled developed area could not make an activity in urban spaces. Thirdly, some places that had a potential to be a public space privatized by the development of apartment complexes and the urban development driven by the foreign capital.

Since launching the autonomous local government system, each city has developed large-scale public space to rebrand their urban image. However, although the justification method of development changed, the course and result of development for public spaces have never been changed compared to before the autonomous local government system. Even if Korean has changed its perspective on urban development focused on the urban growth into the perspective on the quality of urban life, the large-scale development for rebranding of urban image has still been controversial in terms of quality of public space.

As a result, the development of public space in Korea has been arguable because it was not for the public. In other words, public spaces that were made by the power of the economy and the government overwhelming the

Korean civil society was commercialized and privatized for authorities and economic growth. Through this, Korean urban areas did not maintain our traditional urban context, and lacked rational reason by the public which lead to and lose our identity of urban space.<sup>10</sup> This course of modernization has a major impact on not only the quality of urban space and civil society but also public space which is based on civil society and urban space.

Based on the course of modernization in Korea, we have to consider how the changing of station as public space is related to the Korean society during the course of modernization.

### **2.1.2 Specific Characteristics of Public Space in Stations**

The railway system is the most important facility that led to modernize Korean society. Even if the Japanese colonial government initially developed it, the railway system played an important role to industrialize and urbanize Korea society for last the century. Furthermore, it not only physically contributed to modernization, but also inoculated Korean society with modernized thinking. In particular, during experiencing tough times in Korea, stations played a crucial role as a public space.

Firstly, railway stations formed a new communication space with the beginning of modernization. At that time, people could communicate with each other and share their thoughts and information. In particular, by

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<sup>10</sup> 이무영, 공간의문화정치학, 논형, 2005, p89

communicating with each other, they abolished the barrier between classes.

Secondly, since the 1960's Korean society was governed by a dictatorial power and authorities and economical value overwhelmed Korea civic society. In this time, railway stations were a place to reveal the public's political, economical and social desires, and it was considered as a first gate to enter into an urban area, and people made civic cultures in the station.

Thirdly, as the quality of life rose, the railway station was no longer a transportation facility, but an urban space that supported the civic society. In other words, it was not just a place for movement, but it reflected the change of society. Then, the railway station became a cultural space and a place of living.

In terms of public space, the most important value is that a station has become a public space based on the public itself. People naturally communicate each other and reveal their social desire in a station. In particular, the nature of a station based on the public recently changed and became commercialized through the development of the private sector.

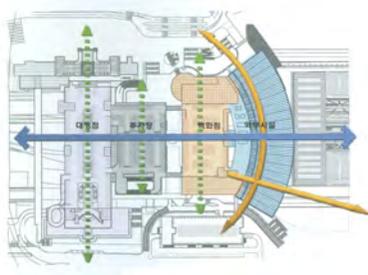
Based on this consideration, I analyze the Seoul Station Complex to deeply understand how to change the nature of stations as public space in Korea.

## 2.2 Case Study\_The Seoul Station Complex

### 2.2.1 Analysis of Public Spaces

Since the Japanese colonial era, Seoul station has played a crucial role in the center of Seoul, and it became a hub of various public transportations; 110 of bus service routes, subway line 1,4,10 and airport railway connect with Seoul privatized complex station.

Looking at the concept of designing of Seoul station complex, the type of European airport, which the arriving entrance separates from the departing entrance was applied to the railway station system. (Fig.2 Concourse plan) In terms of urban structure, the concourse was designed as a bridge which connects the east side to the west side of the station because of the balanced regional development.<sup>11</sup> (Fig.2 Zoning and axis plan)



Zoning and Axis Plan



Concourse Plan

Fig.2-2. The Design Concept of Seoul Station Complex.

<sup>11</sup> 한국고속철도 역사, CA press, 2004, p79

Based on these originally design concepts, we can analyze public space in station complex through the plan of arrangement, the circulation system, the condition of in and out space and the relationship between inside and outside, and then I synthetically identify how public space works and be changed in station complex.

#### 1) The Plan of Arrangement

Seoul privatized complex station can be divided into four facilities; railway stations, commercial facilities, parking lots and cultural facilities. These facilities are located at each separated part and arranged in the order of horizontality rather than the order of verticality.

These facilities form four areas including the exterior space of the station. The first area is an exhibition facility as the old Seoul station and Seoul square that is located in front of the old Seoul station, and the second area is a Lotte market and Parking lot. The third area is a pedestrian square that is located in front of the new Seoul station and linear pedestrian square that is located between parking lot and concourse. The fourth is a station and concourse.

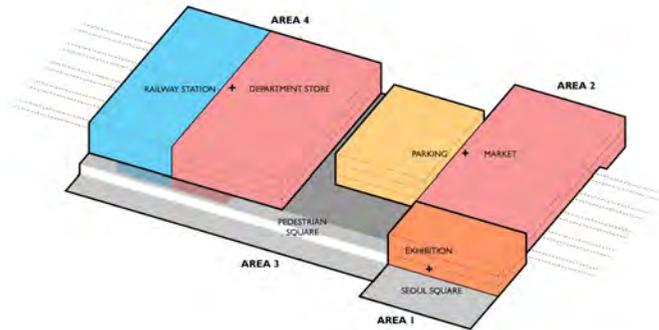


Fig.2-3. The Arrangement of Seoul Privatized Complex Station.

The circulation of the pedestrian walking in the Seoul privatized complex station that is composed up of four main areas and facilities is separated with the circulation of car parking in a different level. The historical way of circulation for pedestrians that planned on the ground level changed into the way of entering the station on the second floor level. The circulation of parking planned on the ground level in the west part of station separates with the circulation of the pedestrians, but in the east part of the station the circulation for parking coexisted with the circulation of the pedestrian.

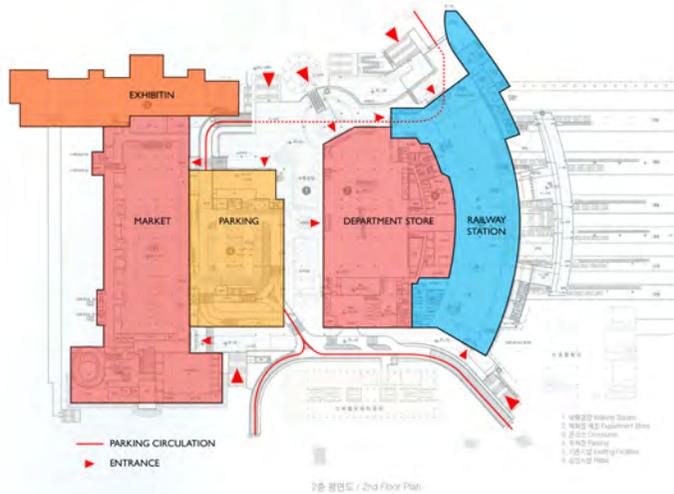


Fig.2-4. The Main Entrance and Parking Circulation.

## 2) Circulation

Based on the four areas of the station, the circulation is formed in various ways. In particular, the pedestrian park between parking lot and concourse mediates different circulations, but the first area that is an exhibition facility and Seoul square is separated with other facilities in terms of arrangement and circulation.

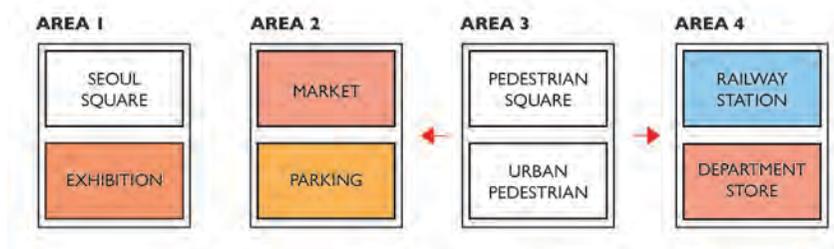


Fig.2-5. The Relationship between Areas in terms of Circulation.

Looking at the circulation based on station facilities, people directly enter the station through the pedestrian square in front of the concourse, subway station, and transit transfer center because the main entrances of area 2 planned eastern and western part of the station. If people come to the station with their private cars, they can enter the station through the parking lot. That is, even if the pedestrian square that is located between the parking lot and concourse officially mediates different circulation, the relationship between the pedestrian square and the circulation is in actuality very weak.

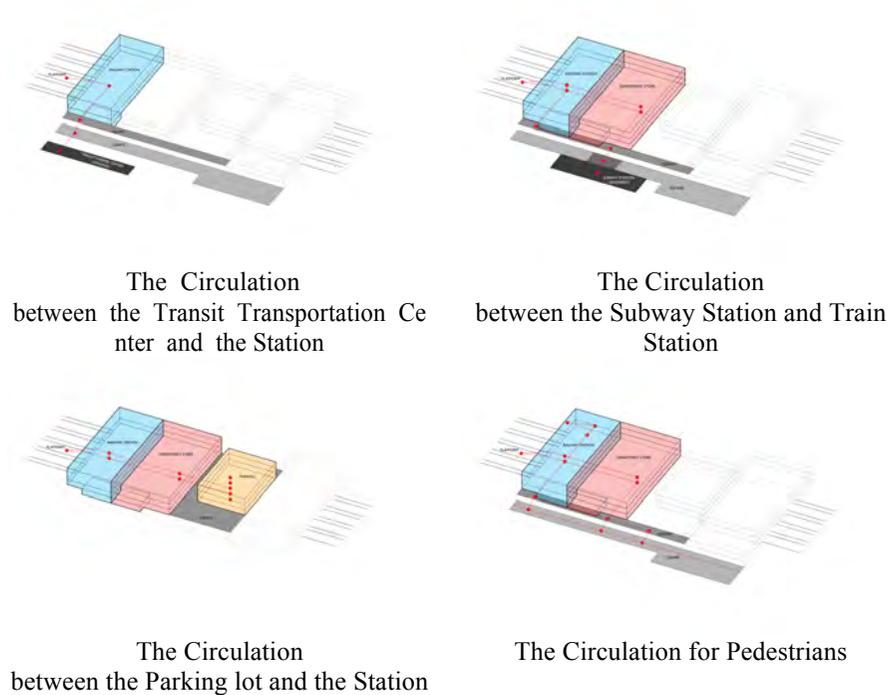


Fig.2-6. The Various Circulations based on the Train Station Facility.

### 3) The Relationship Between Inner Spaces

Each facility in the Seoul privatized complex station has each vertical circulation, and they horizontally connect with each other. In other words, each facility horizontally makes a relationship rather than the way of verticality, and the boundaries between facilities can be seen four spatial planning.

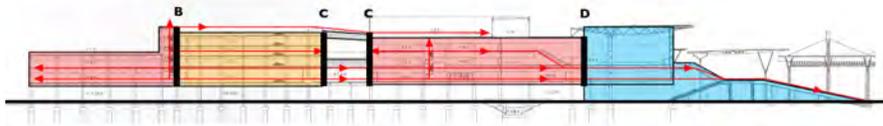


Fig 2-7. The Vertical and Horizontal Circulation on the Cross-Section.

Table 2-1. The Spatial Planning on the Boundaries

Type #1. Separation	Type #2. Gate	Type #3. Corridor	Type #4. Mediation
Two different facilities are totally separated from each other.	Gates only connect the two different facilities.	Corridor penetrates into the two facilities.	The Other program mediates between the two facilities.

Table 2-2. The Analysis of the Second Floor

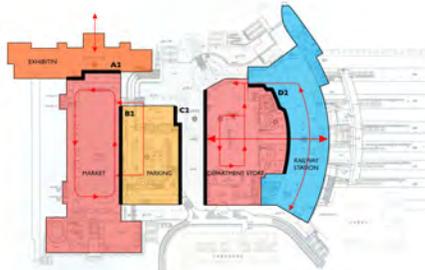
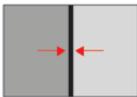
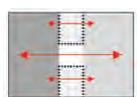
 <p>Inner Circulations and Boundaries between facilities on the Second Floor</p>	PROGRAM	TYPE	
	A2	Cultural / Market	
	B2	Market / Parking	
	C2	Parking / Department Store	N/A
	D2	Department Store / Station	

Table 2-3. The Analysis of the Third Floor

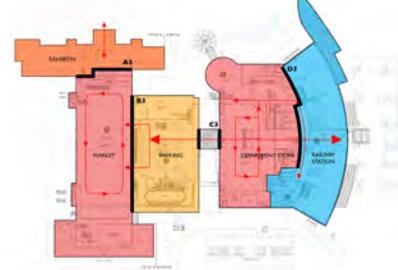
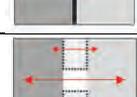
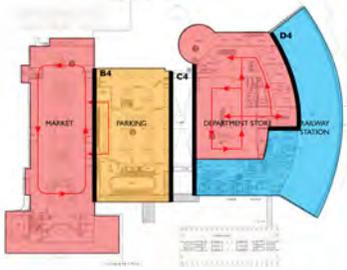
 <p>Inner Circulations and Boundaries between facilities on the Third Floor</p>	PROGRAM	TYPE	
	A3	Cultural / Market	
	B3	Market / Parking	
	C3	Parking / Department Store	
	D3	Department Store / Station	

Table 2-4. The Analysis of the Fourth Floor

	PROGRAM	TYPE
 <p data-bbox="326 653 650 697">Inner Circulations and Boundaries between facilities on the Fourth Floor</p>	B3	Market / Parking
	C3	Parking / Department Store
	D3	Department Store / Station

Looking at the spatial planning on the boundaries, firstly, the station and department store that are separated to each other but located in one building actively relate to each other through the commercial shops in-between them. Secondly, the market and parking lot that are neighbored each other also relate well because they are connected through a gate at all the floors. However, the relationship between the department and parking lot is weak because they are only connected on the third floor through a bridge.

#### 4) The Relationship Between Exterior Spaces

The exterior spaces in Seoul station site can be divided into 3 parts. One is the Seoul square in front of old Seoul station, and Second is the pedestrian square in front of the new Seoul square. Third is the linear pedestrian square between the parking lot and department store.

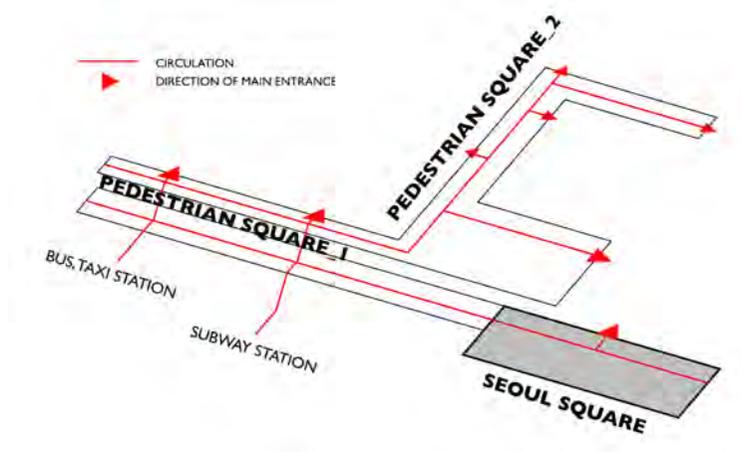


Fig.2-8. The Relationship between Exterior Space in Seoul Station.

Due to the separation of levels between the first and the second floor, the Seoul square and the pedestrian square on the second floor is separated. In particular, Seoul square is completely isolated from other exterior spaces. It is because it is located in the northern part of the site, so it cannot make a relationship with the other exterior spaces and Seoul privatized complex station, except for the old Seoul station.

As a result, even though all exterior spaces in the site seem to make a relationship to each other, they are actually separated with each other due to the separation of levels and the relationship with interior spaces. It means that the plan of exterior spaces is not sophisticated, and there is no exterior space that mediates each different area as whole.

## 5) The Relationship Between Interior Space and Exterior Space

The relationship between interior space and exterior space in a station has been a historically crucial point to be a public space. This relationship can be identified through analyzing the relationship between the main façade following the main entrance and an exterior space.

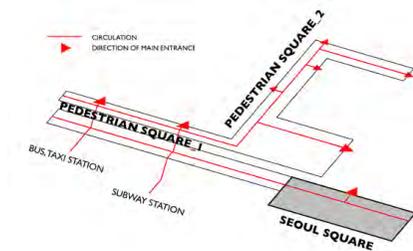


Fig.2-9. The relationship between exterior spaces and entering circulation.

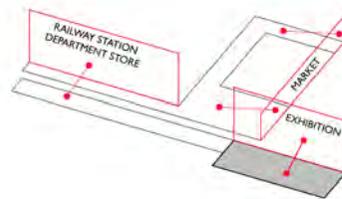


Fig.2-10. The relationship between exterior spaces and main façades.

As we can see from the above diagram, four areas each have different main façades. It means that exterior spaces on each different level and location relate each different main façade. It shows that as the relationship between interior space and exterior space make a flow following directions toward facilities, they play a role as a place for flow, not a place for an event or gathering.

## 2.2.2 Generic Public Spaces

### 1) The Change of Exterior Space

As making a relationship with a square, stations have historically played a role as public spaces. Stations have always been made of movement, and the square that usually is located in front of the station accepted these movements. In this sense, squares were a place not only to stay just before leaving but also to first meet before going to a city. As stations mediate various public transportations as a hub, squares also were a place to connect public transportation.

However, the analysis of Seoul station shows that the historical relationship between the square and station changed. In a historic way, the square and station were designed on ground level, so they easily made a relationship with each other. However, as the station was designed above the railway, exterior spaces were separated at different levels. In the case of Seoul station, the pedestrian square is located on ground level, and other pedestrian squares are located on the second floor. The old Seoul square in particular is isolated in the northern part of site.

The character of these exterior spaces changes again, as they are affected by various facilities. That is, they are considered as a place for flow rather than a place for staying. In particular, because basement spaces have developed as urban spaces, and other transportation means like subways and private cars have developed, people enter stations through basements

spaces or parking lots. It means that now the relationship between stations and squares seem to be similar with the relationship between general buildings and streets.<sup>12</sup>

Nevertheless, the exterior spaces of stations are still considered as important public spaces, regardless of its location and scale. They played a role as a hub among various transportations and have potential to promote new events related to various facilities. Therefore, it is necessary to create a new strategy to revive their important role and reveal their potential as a public space.

## 2) The Lack of Relationship Between Inner Spaces

Waiting rooms, offices, ticket rooms, and restaurants were the inner spaces of railway station that mediated the urban area and the platform. At the beginning of the railway station system, they played a role as a communication space in which people shared their thoughts and information.

However, after the 1980's the inner space of railway stations changed into commercial spaces by private sector to make a profit, so commercial facilities have overwhelmed inner spaces of the railway station. This phenomenon was actually one of concerns when examining the railway station complex, and people anticipated it.

If the “public space” is defined that various elements such as users,

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<sup>12</sup> 김종현, 역사의 역사, 배재대학교출판부, 2004, p20

programs, and the urban context are in relation to each other based on the openness, what we discussed in Chapter 1, the critical point is the relationship between inner spaces rather than the commercialized inner space. In the case of Seoul station, in terms of the relationship of inner spaces and circulation, it relates with commercial facilities through the spatial planning of their boundary. However, it, taken as whole, does not make a relationship with other facilities in terms of circulation because the location of the station is too far at the southern part of the site.

In terms of the definition of public space that is based on openness and relationship, the combination of commercial facilities and railway stations provide a chance to make a new public space although the station complex has been still developed with a dichotomous thinking of the relationship between private commercial and public space. Therefore, it is necessary to find a new design strategy through the rethinking of the relationship between inner spaces.

### **2.2.3 New Potential Models of Public Space**

In terms of the historical notion of public space, the Seoul station complex has been changed. The exterior space does not play a role as a place of gathering, and the interior space does not play a role as a public surface because of the overwhelming commercial facilities.

Nevertheless, many events and activities have been created in a new area of Seoul station complex. The new types of public areas seem to have an invisible condition rather than a physical boundary. Even if these areas is not considered a public space based on the historical notion, these conditions can give a clue that it is an evolved public space. Therefore, it is necessary to examine the conditions of the public space of Seoul station complex.

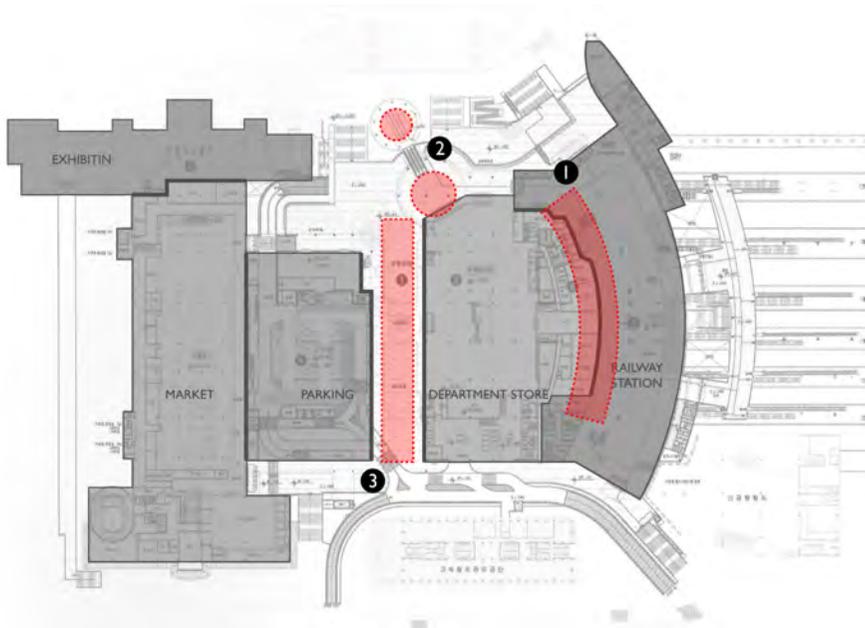


Fig.2-11. The Potential Areas for Public Space in the Seoul Station Complex.

1) The conflict of programs without intermediary space

The programs in Seoul station complex naturally form boundaries among

one another because of the horizontal arrangement. In particular, a train station and concourse as a commercial facility are directly facing each other without an intermediary space although they have a different character.



Fig.2-12. The Commercial Shops like a Mall in a Station Complex.



Fig.2-13. The Boundary between the Train Station and Commercial Facility.

If this boundary is analyzed through the historical notion of public space, it cannot seem to be a public space because the commercial facilities interfere in the train station as a public space. It can also be considered that the commercial facilities overwhelm the public space because a train station directly faces various commercial shops without intermediary space. However, various events and activities that are based on public space are created within these boundaries.



Fig.2-14. Various Activities within the Boundary between Programs.



Fig.2-15. Making a Situation through the Conflict of Different Programs.

We infer that the interaction of commercial facilities and public space from the case of Seoul station complex. Public space is based on openness and accessibility, and a commercial facility can give amenity and events that cannot be given by public space. In terms of commercial value, a commercial facility is also able near a public space because they can make a profit from the public. That is, in a station complex, in which various programs complexly mix, the public surface in which events and activities can be created seems to be formed within the boundaries through the interaction among the various programs.

## 2) The nodes in which circulations are overlapped

Seoul station complex mediates different transportations and forms different circulations. Buses and taxis are connected on the ground level, and circulation from the underground connects with subway. In times past, the square played a role as a mediator for various circulations.



Fig.2-16. The Second Floor node of Circulation between Subway and Train Station.



Fig.2-17. The Basement Floor node of Circulation between Subway and Train Station.

These days, the nodes in which circulations overlap with each other plays a crucial role as a mediator rather than a place in which all circulations are mixed. According to flow, the public naturally meets each other in these nodes, and programs and events are located and created based on the character of nodes in which people can gather easily. In particular, the circulation from a subway to a train station can be considered a crucial node because it connects all different levels and modes of transportation such as bus, taxi, and train. Many different types of commercial facilities are located on this node, and they create various situations which have the potential to make a public surface through the interaction.



Fig.2-18. The Second Floor node of Circulation between Subway and Train Station.



Fig.2-19. The Ground Floor node of Circulation between Subway and Train Station.

The crucial nodes in the Seoul station complex form small-scale public spaces rather than a large-scale public space like a typical square. However, regardless of the scale of space, not only does the node give a clue to make a public space but also the place of flow that was considered unnecessary place to make a public space can become a new public space to make a network in the station complex.

### 3) The Change of Pedestrian through Commercial Events

As we can see from the analysis of Seoul station complex, the pedestrian square between the concourse and the parking lot does not seem to play a role as a square and pedestrian. It is because the programs that are located on either side of the pedestrian square do not interact with each other, and the pedestrian square does not mediate the different circulations as a node.



Fig.2-20. The Pedestrian Square between a Concourse and a Parking Lot.

However, if events are created in this pedestrian square, the pedestrian square's surrounding character can change into a new space. New amenities would emerge through new events which make a new relationship between the concourse and the parking lot based on a place of flow. This means that a place of flow can change into a public surface through interaction with its surrounding situation.



Fig.2-21. The Temporary Market in Pedestrian Square\_1.



Fig.2-22. The Temporary Market in Pedestrian Square\_2.

The pedestrian or corridor is a crucial place in a station complex because it connects different areas, and a new sequence can be created through the flow-based relationship with corridor's surrounding situation. Even if corridor or pedestrian commercially influences and control the public life, in terms of public space, it can make an evolved public space in the station complex.

### **2.3 Summary**

In this section, through the case of Seoul station complex, the change of historical notion of public space and the new emerging public space are examined. We can see that public space is created depending on situation rather than a physical and static entity.

In particular, we can infer that public surface can be formed not only in exterior space but also in interior complex space from the case of new public space in a Seoul station complex. It is because that various programs complexly relate each other, and then that relationship makes a new condition and situation such as boundaries, nodes, and events to be a public space.

Based on this case study, the cases of Les Halles planning are examined to how public space can be planned through the relationship-oriented concept within a station complex.

## **Chapter 3. Design Study Hypothesis**

The change of public space and the new potential area for public space are examined through the case study of the Seoul Station Complex. The physical public space of the Seoul Station Complex was changed their character of public space, but some places show a potential to be a public space through the relationship between various elements such as programs, users, and events in a station complex.

The new potential areas for public space in a station complex that can be created based on the situation and condition seem to be formed through the new design study and process instead of the existing planning ways. It means that through the new design study and process, the evolved public spaces that are based on the situation and condition can be created rather than the power of existing public space that are designed by the notion of physical area are weakened.

Some design works already give a clue for the design study and process in terms of the new public space in complex facilities. In particular, the competition works of Les Halles in Paris show new concepts of public space in a station complex. Hence, through the case study of Les Halles project, I propose the design study and process for a new public space.

### **3.1 Les Halles in Paris Architectural Competition**

Les Halles was made as a market by Louis VI in the 12th century, and then after 18th century Les Halles was drastically changed because its development was directly affected by the King.

The first competition for development of Les Halles was held in the mid of 18th century, where Germain Boffrand had won. In his scheme, he offered the ideas of the Royal square and forum in order to regenerate and revive in Les Halles area. In 1851 following the Haussmannization of Paris, the Les Halles site was merged into a single huge parcel by Victor Baltard with 12 pavilions built in that site with an orthogonal street system. In 1962, the Paris government announced that the market in Les Halles was to be moved to the in suburban area.

In 1975 another competition was held for the further development of Les Halles, and RicardBofill, Claude Vasconi and Georges Pencreach's project won, which had a plan to make a basement forum and international commercial center. However, for certain political reasons their plans were modified by the mayor of Paris, Jacques Chirac. The modified plan was completed in 1981; making the forum, shopping mall and subway station in the basement with some buildings and a park on the ground.



Fig.3-1. Forum Les Halles in Paris before 2012.

### **3.1.1 The Design Proposal by MVRDV**

#### **A New Corridor as Public Space**

For the new Les Halles, MVRDV thought the Les Halles shopping centre was overcrowded, lacked visibility, an overview and light. In addition, they thought the park did not have a strong character, hence Les Halles lacked recognition, attention and possibilities.

To solve this problem, MVRDV designed the overlaid axes that connected each other based on both RER and metro platform. Among these axes, commercial programs were placed, and then commercial programs extruded up to the first level as an artificial land. This artificial land played a role as a new ground level as well as glass boxes casting natural light into the underground levels. Underground when see the grass boxes, people feel that the park looks like it is floating in the air.

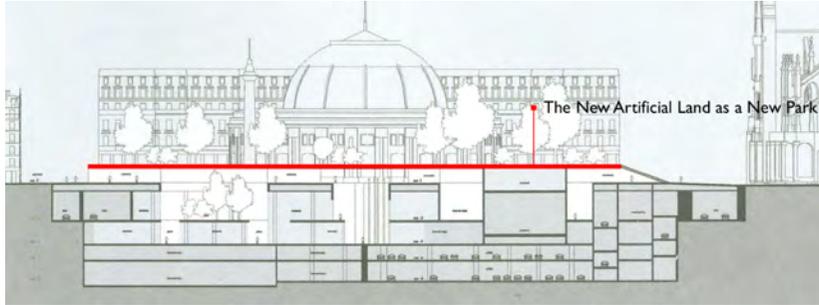


Fig.3-2. The North-South Section: The New Artificial Land on Second Floor.



Fig.3-3. The Lescot Entrance in Les Halles: The Glass Material.

In terms of the relationship between the basement programs, MVRDV's scheme scarcely changes the basement program arrangement compared to the existing basement plan. The new program arrangement is focused on the part of the Forum, and even that is developed in a minimal way such as through overlapping and change. Eventually, their scheme in the basement is very similar to the original plan, which is grouped according to programs based on the commercial program.

Looking at their work, in terms of form, the relationship between ground and underground is seen as an interacting form in contrast with their basement program intervention. First, they modify the basement axes, and then among the axes, they arrange the commercial programs. Second, they extrude these overlapping spaces up to the first floor level, and finally the new form of ground level which is reflected in the basement program make a new urban context such as pedestrians on the site. In addition, the new artificial ground level becomes a public space as a park, and some part of the new park cover with glass material in order to cast natural light into the basement area. Through the new form reflected basement program on the ground level, they intensively solve the problem mentioned that Les Halles lacks recognition, attention and possibilities.

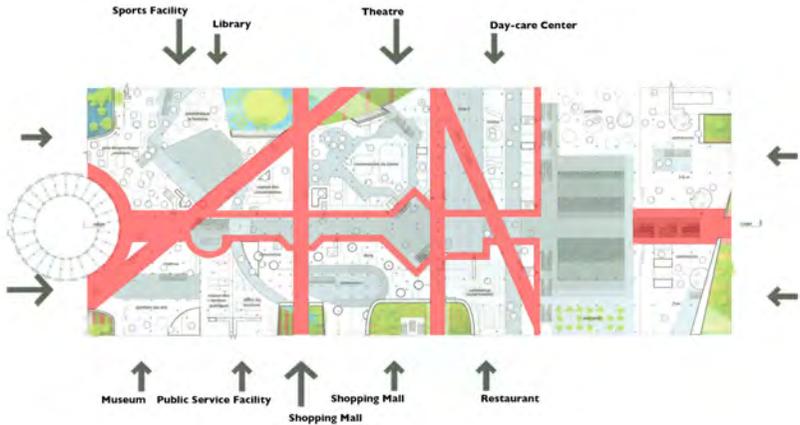


Fig.3-4. The First Floor Plan: Main Axis and New Pedestrian.

In particular, in terms of public space, the new pedestrians on the ground level can be a new type of public space through the relationship with commercial program. Extruded commercial volumes on the ground level form a pedestrian pathway on the ground level, and then these volumes interact with ground pedestrian pathway and the public. Even if a new park above these volumes play a role as open space, the public experience events and activities on the ground level through the interaction with commercial program. That is, as we can see with the Seoul station complex case, the pedestrian pathway and the corridor would transform a place of flow into a new public space.



Fig.3-5. The Perspective: a New Park and Pedestrian.



Fig.3-6. The Perspective:  
The Relationship between New commercial Programs and Urban Pedestrians.

### **3.1.2 The Design Proposal by OMA**

#### **A Confliction for a new public space**

OMA's scheme for Les Halles has a special meaning in terms of a new public space as making a relationship with other principle facilities located underground. OMA states that in the case of the garden of Les Halles the principle facilities are not located around, but rather under the public space; the park is trying desperately to conceal the world lying beneath it, and it is clear that the garden and the underground facilities mainly suffer from a lack of connection with each other.

Based on this thought, the primary purpose of OMA's scheme is to redefine and rebuild the interactions among the garden, the business and the

metro and RER train stations. OMA redevelops a composition of masses and voids that connect the worlds located above and below ground. By simple action, the strict superposition of the program layers is transformed into a three-dimensional space. The underground facilities are thus given their own address and identify within the context of the city.

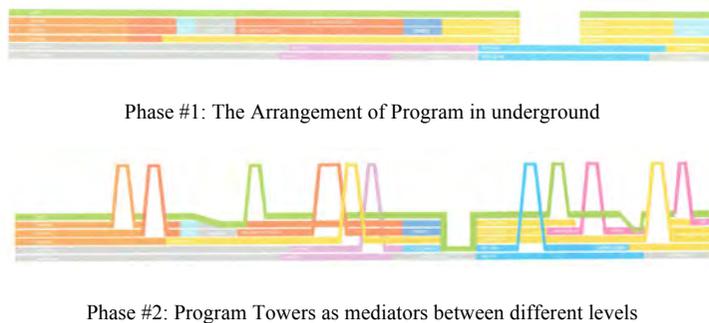


Fig.3-7. The Section Diagram: the Relationship between a new park and various programs.

OMA proposes three axes as a basis for the project's composition. The business axis on the underground levels, seeks to open up the lower levels as much as possible to bring in light and make the space user-friendly and safe. The second axis is for bringing the underground facilities into the city by organizing the masses into superstructures. Lastly, the third axis redefined the garden of Les Halles in order to create an attractive, useable space that can be shared by all.

In particular, the theme garden on the ground proposed by OMA gains validity as a new type of public space. It is generally devoted to those living

in the neighborhood and coexists with vast grassy or paved area that can be used for various events (the showing of open-air movies, concerts, markets, antique and art shows). To make this garden as a public space, the relationship between private commercial programs and public open space forms new boundaries on the ground level.

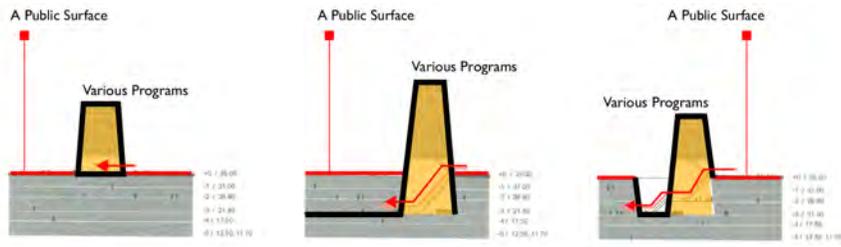


Fig.3-8. The Different Interactions to Connect Different Programs.

This strategy seems to look very similar to the boundary as public space in the Seoul station complex. Different programs or entities can create new tension, and it can give change to become a public space in a complex.

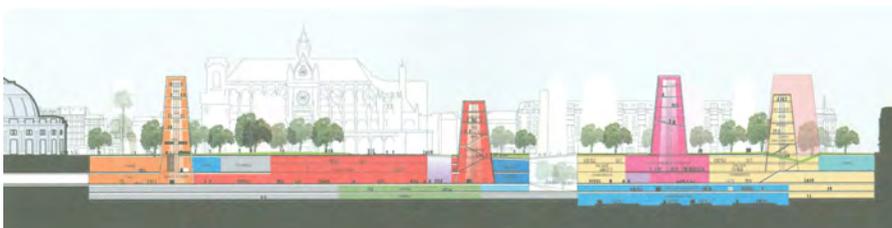


Fig.3-9. The Longitudinal Section to Show the Relationship between Programs and a Park.

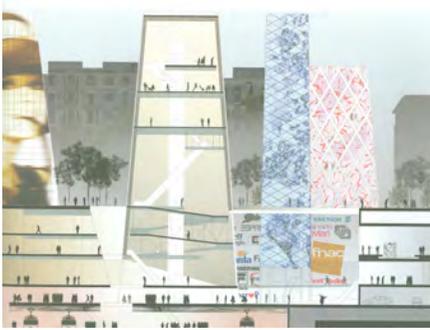


Fig.3-10. The Sectional Diagram to Show Activities.



Fig.3-11. Perspective view in a Courtyard.

### 3.1.3 The Paradigm Shift of Design Process for Public Space

In contrast with the historical stations, station complexes include many programs and management bodies. The Les Halles will be also designed the station complex including various programs and management bodies based on the historical station, and the competition work of MVRDV and OMA show a new arrangement of programs and circulations for a public space in Les Halles.

In particular, the strategies for a new public space that is designed through reinterpreting the relationship among various programs imply the new public space in a station complex. In the proposal of MVRDV and OMA, they suggest the huge park on the ground, and at the same time they also propose new situations and conditions in a park through the relationship between commercial programs and a park.

Through the case studies of the Seoul Station Complex and the Les Halles,

the new design study and process should be required for the public space in a station complex. That is, the existing design methodology as which various programs are simply arranged in a complex has a certain limit to generate public space in a station complex, but rather the potential areas to be a public space can be formed through creating situations and conditions through the relationship among various programs. Hence, based on the case studies, I propose hypothesis for design study and process to generate public space.

## **3.2 Design Theory Behind Generating Public Space**

### **Primary public space**

People tend to associate public space as having certain essential and obvious characteristics. People believe it is publicly owned, the opposite of private space. People believe it is open and accessible to everyone, where no one can be turned away. People imagine it as the setting for important civic events, where large groups of people come to celebrate, protest, and mourn. People see it as somehow part of democratic life –a place of speaking out and being heard. Based on these perceptions of public space, Architects tend to define public spaces according to their physical types- parks, plazas, streets, and sidewalks-rather than by their social and economic effects.

As we can see in Chapter 2, station complexes in Seoul as important

public space still are designed according to the physical types of public space such as square and waiting room. However, public surfaces in a station complex seem to be emerged depending on the condition such as boundaries between programs and nodes between circulations, not a designated place. In other words, public space is no longer the physical space, but a space that reflects the changing society. Based on these case studies, we need to view the design of public space as one of the most important contributions to society through the new paradigm of public space.

The station complex that is operated by public-private partnership causes controversy in terms of the role of public space, and people feel the necessity of new public spaces, not the historical notion of public space in a station complex. In particular, in the KTX Suseo station that will be developed with various programs, the shape of public space will be no longer cohered by physical, visible characteristics such as form, iconography, or place, but it will be invisible to perceive. Even public space in the KTX Suseo station complex will also manipulate and control out habits invisibly. Based on this thinking of public space, I propose three design studies for a new public space.

### 3.2.1 Territory Strategies

The city is usually planned according to what is called the ‘master plan’ in which areas are zoned. The way of zoning means that areas are zoned following programs, regulations and usages, and then each zoned area is controlled by principle. In contrast, a territory is no longer a shape, but a complex system of relationships and events determined by successive defining layers of reference (physical but also demographic, biological, economic, cultural, political, etc.) and the large-scale structural networks (transportation, energy, financial movements, etc.) that articulate it – among which simultaneous processes of action and reaction are unleashed.<sup>13</sup>

As the functional ways, the way of zoning forms a physical boundary, not a relationship, and it makes a static space, not a flexible space. Public space formed by this functional way also tends to be empty space as an open space because it is not considered a different area and has relationship with other areas.

For example, we can see the planning of park La Villette designed by Bernard Tschumi. The big difference with the other proposal is that he started to plan with the important question; How to organize territory? rather than how to arrange program? He experimented with many alternatives as organizing way of territory, and then he proposed the new

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<sup>13</sup> Manuel Gausa, *The metapolis dictionary of advanced architecture*, Actar, 2003, p621

park La Villette in which various activities and events are created through overlapped different layers as the way of organizing territory.

The design proposal here presented explores a planning through the way of organizing territory, not the way of controlling territory in order to make a new public space in a mega complex condition. Through this way, many programs operated by different sectors can be related to each other, and unpredictable public spaces and events can be created. In particular, they create unpredictable territories which are not limited by physical boundaries as public space. As a result, the way of organizing gives rise to invisible relationships and the subtle interconnections which make for the richness of public space in a station complex.

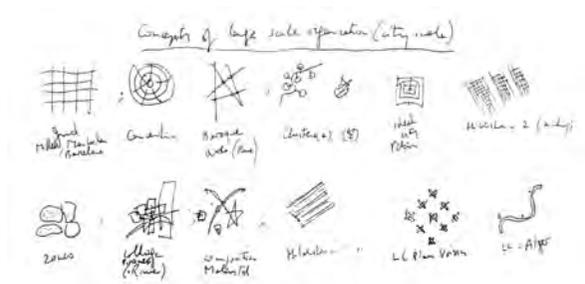


Fig.3-12. The Bernard Tschumi's Sketch for La Villette Park ; The Ways of Organizing Territories.

### 3.2.2 Generating Programmatic Tension

The public space was considered as a place. Traditionally, this place could be defined in terms of physical area, and it could be identified by the

square and major streets where strangers would be likely to meet. However, today the most important fact about the public space is what happens in it.<sup>14</sup> As we can see the Seoul station complex case, boundaries between programs become an interactive space, not just a limit, due to the meeting of different programs or situation. In particular, through the tension which is created by facing different condition, event and activities can be form, and based on becoming public space in which the idea of limit lost precision, and it is diffuse.

In this sense, we can see the important hypothesis in *the Possibility of Absolute Architecture* written by Pier Vittorio Aureli as an Italian architect and architecture theorist. In the above book he compared a city to an archipelago which consists of islands as individual entities. He states that like archipelago, city consists of many individual entities, and they make a relationship between them. That is, even if they form a city as whole, the character of the city is formed through the relationship between them.

In terms of the planning of public space in the station complex, his theory should be also applied. As we can see, as with the Seoul station complex case, events are created on the boundary between heterogeneous programs, public space, event and activities in the station complex can be created on the relationship between the other rather than within actual presence or certain area.

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<sup>14</sup> <http://www.richardsennett.com/site/SENN/Templates/General2.aspx?pageid=16>



Fig.3-13. Pier Vittorio Aureli's Urban Project; A Grammar for the City.

### 3.2.3 Circulation Nodes

In terms of the historical notion of public space, staying places such as parks and squares are considered as an important public space. In this sense, halls and place for relaxations in interior spaces are also considered as a public space, but places for flow like corridors have been considered unnecessary places for public space.

However, places of flow in station complexes in which public space and private space complexly mixed have a special meaning. As we can see with the Seoul station complex case in which transition points to connect different spaces, transportation and programs become a public space hub that is overlapped with various flows which be a public space. In particular,

corridors in complexes become public spaces through the relationship between its surrounding programs.

In relation to this, Rem Koolhaas mentioned in his article '*Junkspace*' that corridor's no longer simply link A to B, but have become a 'destination', and Junkspace is often described as a space of flow, but that is a misnomer. He also stated that although flow is an architecture of the masses, each trajectory is strictly unique, and its anarchy is one of the last tangible ways in which we experience freedom.

Rem Koolhaas's quote is said as a form of criticism about the manner we live today. As a society has been rapidly changed, a mobility affects the way of living, and based on this, in particular, a place of flow become a important public surface in a station complex as a crucial hub. It can also provide various experiences and create activities through the relationship with its surrounding environments, and finally it plays a role as public space through various sequences, not just flow.

### **3.3 Summary**

The historical notion of public space in stations was a square and a waiting room that was based on physical entity. These public spaces played a role as communication space and a first gate to enter the city. In particular, as various events were emerged based on the public, historically it was based on the public society. However, after the 1990's, stations were

affected by social change, and stations developed as a station complex including various programs. At the same time, in terms of public space, a station complex causes a dispute where public space is because of the change of managements body.

As we can see from the case studies, the physical public space seems to have changed. A square, which was considered a crucial public space in a station, has divided and changed into a place of flow. Interior spaces have also become overwhelmed by commercial facilities and has not made a public surface. However, the public space in a station complex seems to be created through a different way.

The new public space is a relational form, not a static entity. In particular, boundaries among different programs, a node overlapping different flows, and a place of flow have the potential to make a public surface in a station complex through interaction and relationship depending on the situation.

The new designs of a station complex already start to be reflected this concepts as we can see the cases of Les Halles in Paris. They proposed the new relationship to generate a public space based on the reinterpretation of existed programs in Les Halles, not the new physical boundary of public space.

As a result, we need a new concept of a public space reflecting a social change in a station complex, and based on the case studies, the KTX Suseo station is designed through the new design study and process in Chapter 4.

## **Chapter 4. Design Process**

### **4.1 Phase 1\_Territory Organization**

As for the first way of the design study to generate public space, I proposed the paradigm shift of designing site from the functional zoning to the organizing territory. Within the functional zoning, the site is controlled by the principle such as regulations, programs, and usages, but the organizing territory means that the invisible relationship between lands, circulations, environments, and events are more emphasized than the functional principle. As we saw the case study of Les Halles in Paris in Chapter 3, public life in a complex cannot be controlled by public space, but it is affected by the relationship between conditions or situations, so to create a new public space in a station complex, the way of organizing territory is more appropriate than the functional zoning.

To achieve this goal, instead of the dividing of site to arrange programs, I apply the new direction of site planning. Before experiment the way of organizing territory, urban structures would be defined as main elements that are formed the urban system as the way of organizing territory. Based on this, I propose the four different urban structures.

## 4.1.1 Urban Structure

### 1) Territory

When a city is developed, it is usually focused on zoning and cityscape. Due to this, cities are zoned and then gathered following same program. In terms of function, cities can be efficiently managed through this way of zoning, and each zoned area has their own system.

However, following the functional way public space is also zoned, and then the public life is separated. In regard to this, to make an evolved public space as a changing condition, not a static entity, I suggest the way of organizing territory, not the way of dividing territory. Through this way, not only events and activities that are experienced by the public can be created in site, but also programs and circulation can be arranged.

To achieve this goal, four different ways are experimented to organize the site: grid, band, circle, and polygon shape. These territories do not imply the arrangement of program, but the boundaries between each shape and the character of public space are more focused to make an experience on a site. In order to make various characters of public space within territories, materials, plantings and landscape would be differently planned in each territory. By this method, each territory would display with different mood and environment, but it would be encompassed as one system through circulation. Moreover, the public can experience various sequences on the boundaries between territories and circulation. That is, each territory has a

different character of public space, and then based on various circulations organized following the arrangement of territory, events and activities are created through interacting with one another in urban structures.

## 2) Architectural Form

The concept of architectural form describes a condition where parts are separated yet united by the common ground of their juxtaposition. Architectural form envisions the city as the agonistic struggle of parts whose forms are finite and yet, by virtue of their finiteness, are in constant relationship with each other.

Architectural form is the opposite of what today are called ‘iconic building’. Iconic buildings are typically singular landmarks. Contemporary ‘icons’ are the final and celebratory manifestations of the *Grundnorm* of city: the victory of economic optimization over political judgment rather than being agonistic architectural form.<sup>15</sup>

Architectural form can be defined as the experience of limit, as the relationship between the ‘inside’ and the ‘outside’. By the inside, I mean the position assumed by an acting subject; by the outside, I mean the situation, the state of things in which the subjects act. Action versus situation or subject versus datum: these are the poles through which the

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<sup>15</sup> Pier Vittorio Aureli, *The possibility of an Absolute Architecture*, MIT Press, 2011, p12

notion of the formal materializes.<sup>16</sup> In this sense, form is above all a cognitive instrument. Architectural form exists from the moment it represents the tension from as inside toward an outside. Inasmuch as the formal is defined in terms of limits rather than self-sufficiency, it is fundamentally relational.

In terms of public space, architectural form as a cognitive instrument plays a crucial role to mediate in and out because contemporary public space is formed through the relationship between in and out. In particular, because the KTX Suseo station complex would be developed as an urban scale, the relationship between interior space and exterior space will be very complex. Unless the site is planned without the consideration of relationship between in and out, public space in a station complex would be separately located, operated, and used.

As a result, territories would be organized, and then architectural form relates with them. This process would invisibly form public space through the definition of limit.

### 3) Verticality

The development of technology that facilitated industrialization made the city more expand vertically. Due to this, towers emerged, and it made iconic buildings which have formed the vertical landscape in the city. In particular, public urban life on urban ground was reduced because urban life

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<sup>16</sup> Pier Vittorio Aureli, *The possibility of an Absolute Architecture*, MIT Press, 2011, p30

moved into vertical private towers.

This verticality is different from existing verticality which separates public life on the urban horizontal ground. It plays a role to connect artificial grounds as public spaces that are located in different levels. In particular, verticality as a new urban structure does not mean as an only core. Based on public space, verticality makes a new vertical relationship between different levels through various programs as a core to connect different levels.

Each floor would have a different character of program or public space, and then program and circulation would be vertically arranged, and would also mediate different floors. That is, each different character of floors as individual entities would be changed into the vertical collective system.

The ground level historically played a role as a public surface, and the tower was formed as a vertical private space. However, through the new verticality, vertical space that was formed as private and monumental space would be changed into one of the public exterior space in a site.

#### 4) Underground

Underground spaces have played a role as an alternative exterior space of cities. Since mega-cities emerged, they have been developed extremely in order to solve the population of growth and the limited ground surface. In relation to this, Lord Norman Foster, the British Architect, insisted: “Population growth and the advent of mega cities are increasing the

pressure on sensitive areas. The underground has enormous potential for realizing spatial benefits. You could say that one of the greatest challenges facing mankind is to achieve higher density while at the same time improving urban existence.” Underground spaces have also played a role as interior spaces of the city. In underground spaces, people shelter from the rain, shops, take transportation, and moves from A to B. However, underground spaces have its urbanism which does not interact with the ground. Even if it supports cities that are located above a ground, its system seems to be totally different from a ground. That’s why people often lose their sense of direction, and look for a map in the underground.

Compared with an existing underground space that was formed through its system, the underground space as the new urban structure would interact with vertical systems and territories on the ground. The new underground is formed following the way of organizing ground, and it is considered a continuous exterior space from the ground as a public surface. In terms of verticality, the new underground interacts with different levels through various programs as vertical cores, so it becomes a continuous interior space in the site.



# Urban Structure #I\_Territory

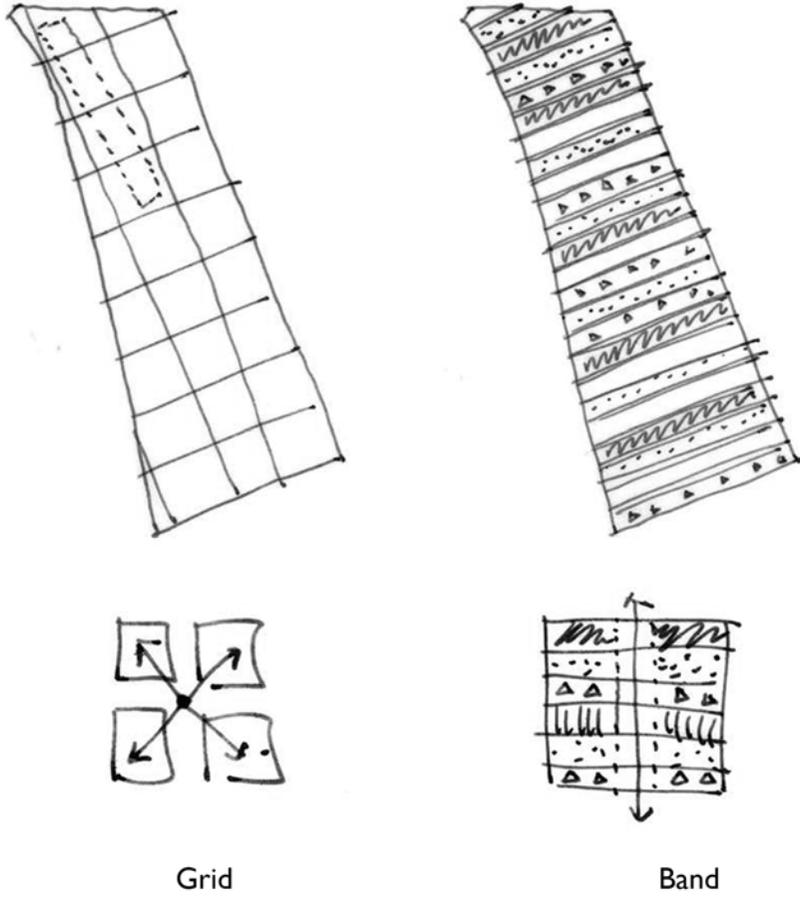
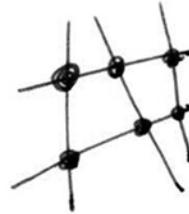
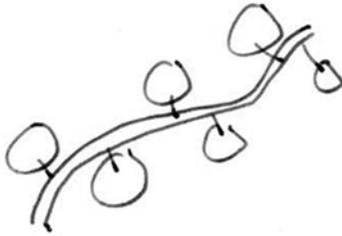
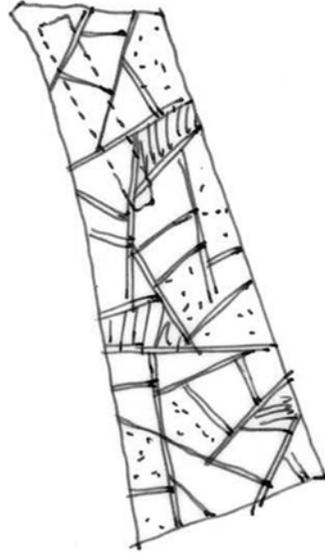


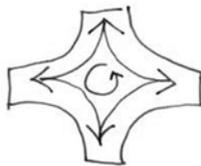
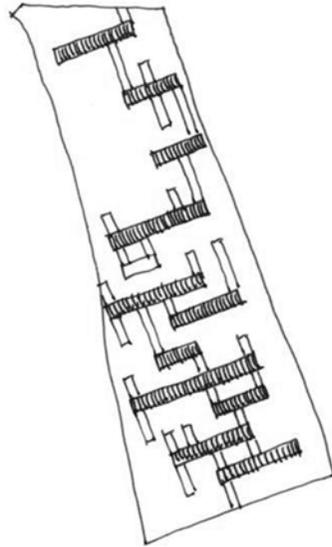
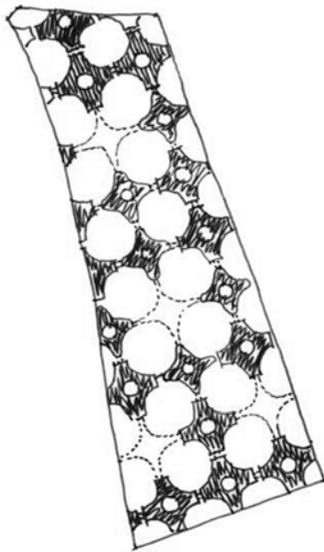
Fig.4-1. The Urban Structure\_Territory.



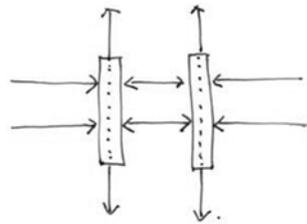
Cluster

Point

## Urban Structure #2\_Architecture Form

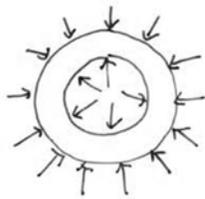
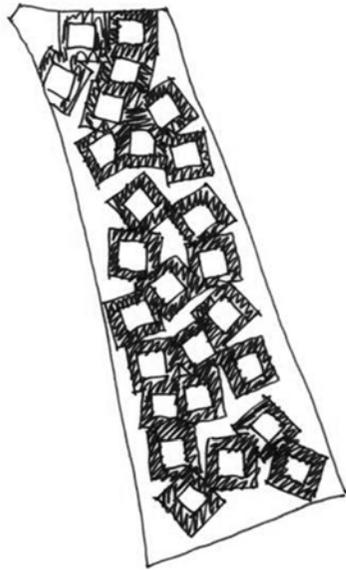
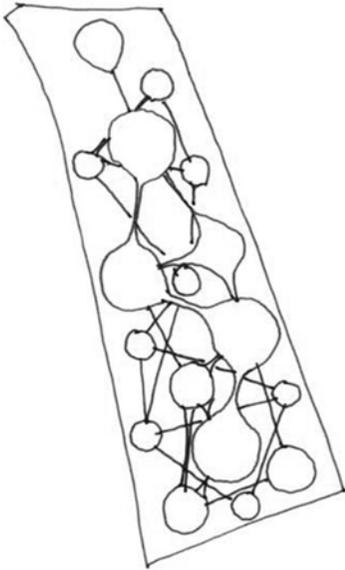


**Grid**

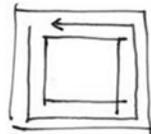


**Band**

Fig.4-2. The Urban Structure\_Architecture Form.



Cluster



Point

## Urban Structure #3\_Vercality

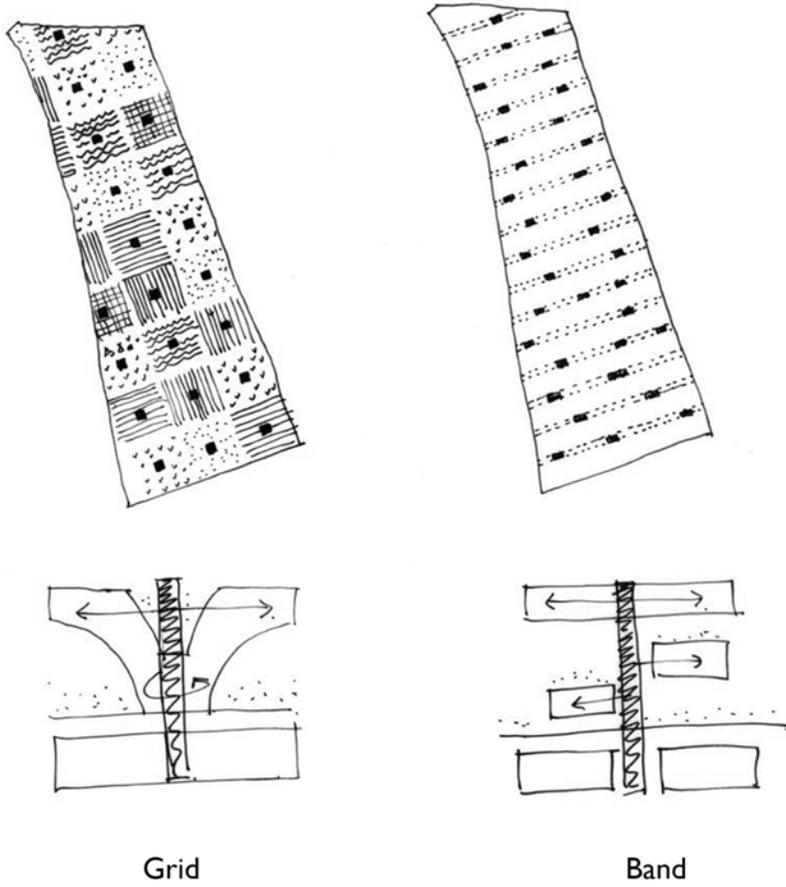
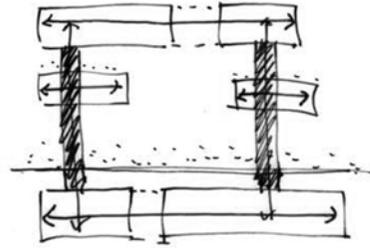
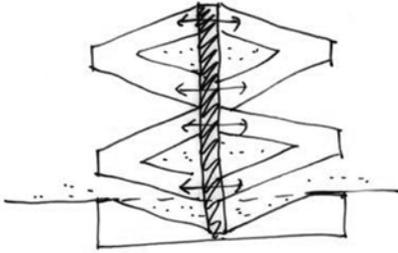
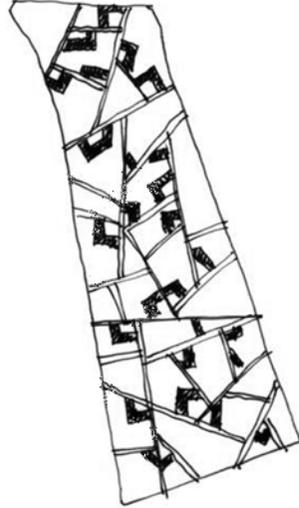
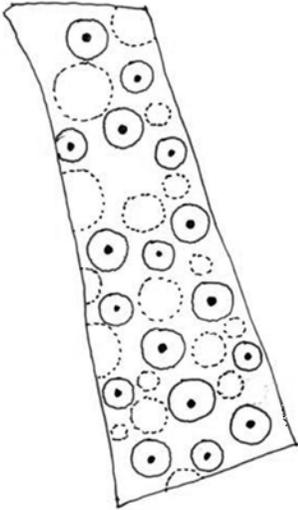


Fig.4-3. The Urban Structure\_Vercality.



Cluster

Point

## Urban Structure #4\_Underground

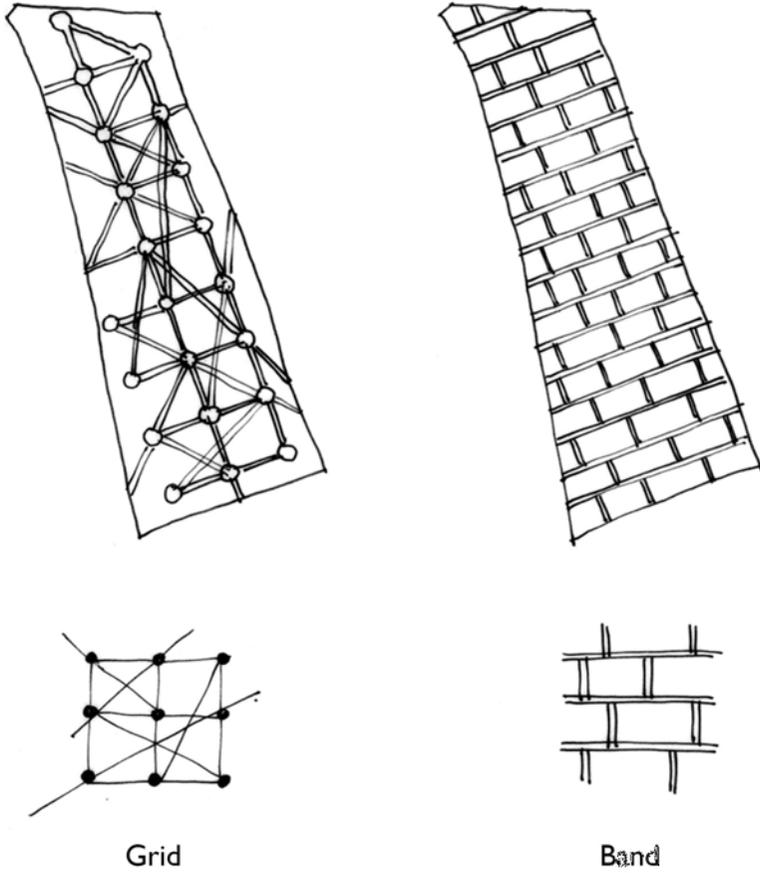
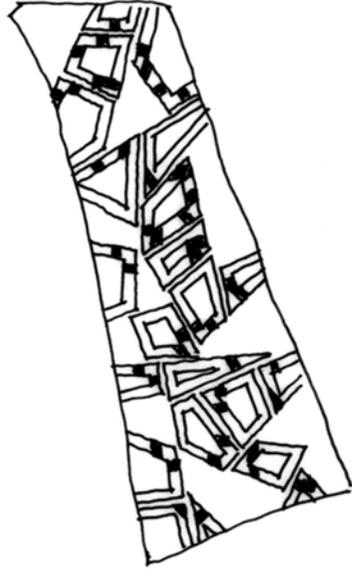
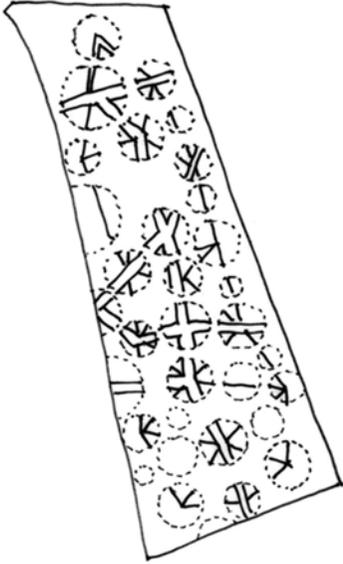
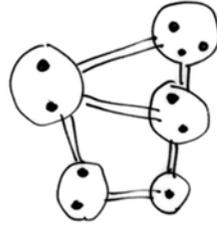


Fig.4-4. The Urban Structure\_Underground.



Cluster



Point

## 4.1.2 Urban System

After defining urban structure as a crucial element for a new public space, the new singularity has to be created through combining urban structures, not just overlapping structure as a new way of organizing territory. To explore the new singularity, I conduct four urban systems; the grid system, the band system, the cluster system, and the point system.

The urban structures that are transformed into the new urban system form relational boundaries between them, and also provide the basis space to be emerged new public boundaries between various programs. Based on these premises, I experiment four different types of urban systems.

### 1) The Grid System

The grid is one of the historical ways to planning a city and by this way, many cities such as Barcelona and Manhattan were planned one hundred years ago. This historical concept of Grid was considered as isotropic geography of infrastructure that would homogenize the entire urban territory.<sup>17</sup>

However, the new grid system that applied into the KTX Suseo station complex site is different from the historical character of Grid. It can create a flexible relationship through the grid pattern rather than as isotropic

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<sup>17</sup> Pier Vittorio Aureli, *The possibility of an Absolute Architecture*, MIT Press, 2011, p21

relationship. In particular, the horizontal grid makes their coexistence within the same urban space. In the new grid system, more change and exception are allowed, and the urban principle is reinforced because the site consists of the grid, which equalizes differences within an isotropic network. That is, the more different the values celebrated by each island, the more united and total the grid or city that surrounds them.<sup>18</sup>

In the new grid system, the isotropic territories as a public surface have each character through different materials and landscape planning, and they make a grid pattern and isotropic circulation. Meanwhile, the vertical cores are located on the center of each grid territory and four vertical cores form another grid pattern. Then two grid clusters can create all events requiring on the public surface. As a result, four urban structures relate with each other according to the grid pattern, but the new grid pattern formed by the relationship between urban structures transcends the historical isotropic grid pattern.

## 2) The Band System

In terms of the new band system, the first gesture in the whole site is subdivided in a series of parallel bands that can make territories as public surface. This tactic of layering creates the maximum length of ‘border’ between the maximum number of components and will thereby guarantee

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<sup>18</sup> Pier Vittorio Aureli, *The possibility of an Absolute Architecture*, MIT Press, 2011, p23~p24

the maximum permeability of each band and –through this interference- the maximum number of mutation.<sup>19</sup> Through this character, all events and activities can be created in the site. For example, The proposal of OMA for the Park La Villette has a similar strategy to organize the site. They also make a strip within the site. The main circulations intersect all the bands at right angles, and connect the major programs.

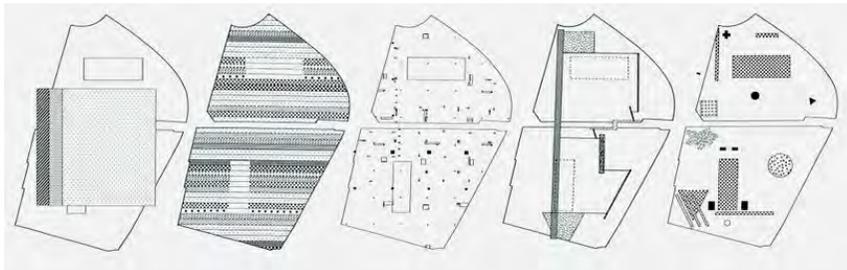


Fig.4-5. The Layer Diagram For the Park La villette Proposal of OMA.

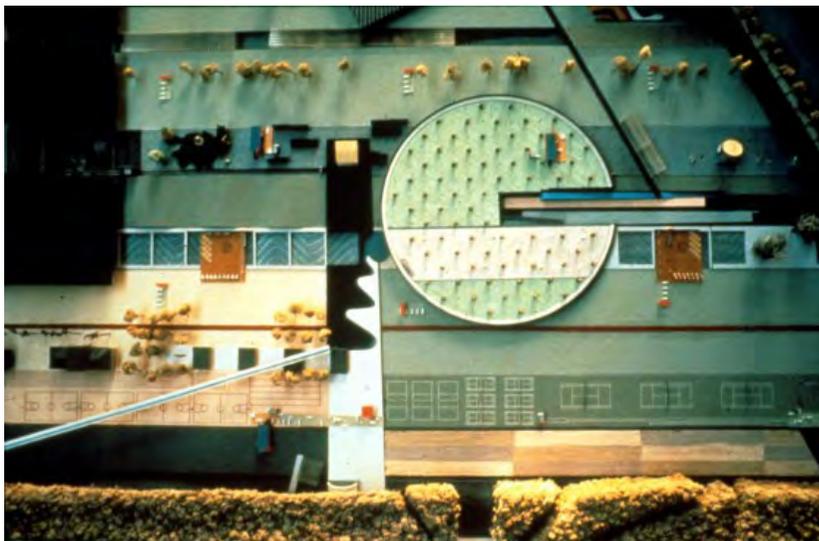


Fig.4-6. The Model For the Park La villette Proposal of OMA.

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<sup>19</sup> Rem Koolhaas, S/M/L/XL, Monacelli, 1995, p923

However, in contrast with the OMA proposal for the park La villette, the linear circulations in the site are planned between bands, and they encompass as a whole site system through expanding vertically, even though the underground space. Then the architecture form mediates between linear circulations, and they make a linear continuous place that can be interfered by programs like an urban sidewalk.

As a result, the band system makes the maximum tension in a series of parallel bands through four urban structures, and these tensions or relationships would be transformed into linear circulations that create events and activities.

### 3) The Cluster System

The way of cluster for physically connecting the areas is one of the basic ways to make a relationship. In particular it can be gained a new character through the way of cluster, and the new cluster system is based on this character. For example, the proposal of OMA for the downsvie park, Tree City, has a similar concept to make a public park. OMA suggests the cluster landscaping, and they envision the cluster vegetal epicenter to connect with the city's green spaces and form a Tree infrastructure. By continuing its landscape clusters and extensive pedestrian pathways into adjacent areas, Tree City can link up with its surround areas.<sup>20</sup>

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<sup>20</sup> Julia Czerniak, Case- Downsvie Park Toronto, Cambridge, 2001, p54



Fig.4-7. The Diagram of Park Program For the Downsview Park Proposal of OMA.

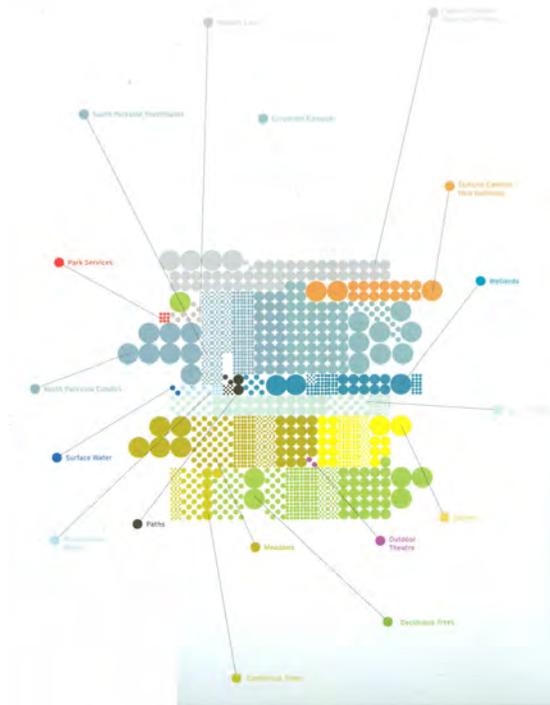


Fig.4-8. The Diagram of Program Growth For the Downsview Park Proposal of OMA.

In the cluster system, the circular areas shape their own boundary each through different ways. They do not have a directional nature and adjoin each other, but they have flexibility because they interact through physical circulations and programs. In this sense, it consists of multiple centers, not a singular center. In particular, based on the circulation and program network, various clusters can be created according to the public preference, and through the bunch of cluster the new boundaries as a new public space can be formed between public and private, and between programs.

#### 4) The Point System

The point system is formed by the encounter of three autonomous structures, each with its own logic, particularities, and limit: the vertical core, the irregular circulation and the architectural form. The superposition of the different structures results in spaces and events of variable sizes and characters which are dependent on situations of reciprocity (when elements reinforce one another), conflict (when opposing elements confront each other), and indifference (when there is low intensity or proximity of unrelated elements). The overlay of the different systems thus creates a carefully staged series of tensions that enhance the dynamic of the station complex.<sup>21</sup> For example, the proposal of Bernard Tchumi for Park La Villette has a similar concept. He suggested the three different structures: points, lines and surfaces. Each element can make different activities, and

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<sup>21</sup> AA Files vol.4, Parc de La Villette, Bernard Tchumi, The AA association, 1983, P.80

they also relate with each other.

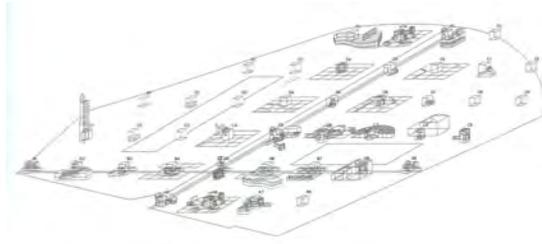


Fig.4-9. The Exonometric for the Park La villette Proposal of Bernard Tschumi.

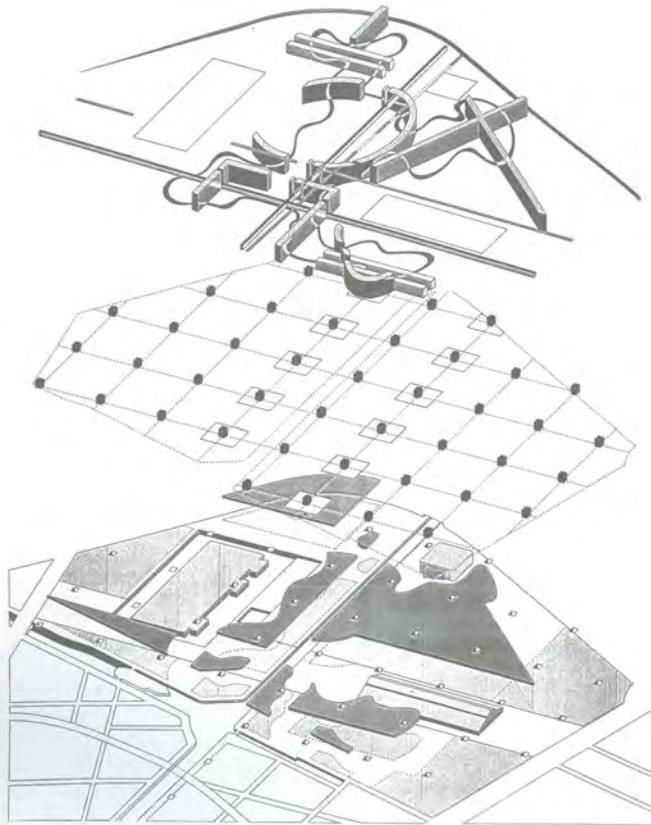
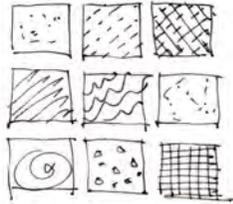


Fig.4-10. The Exonometric for the Park La villette Proposal of Bernard Tschumi.  
; Points, Lines and Surfaces

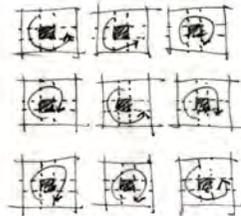
In the point system, the vertical cores as a folly for all events are placed according to irregular circulation and architectural form. They can be transformed and elaborated into folly according to specific programmatic needs the interior space. The irregular circulations are related to coordinate the station complex site as a whole. They intersect with each other, and then interact with the vertical cores. These circulations also provide unexpected encounters with the architectural form. The architectural form transform the nodes that are created by the vertical cores and the irregular circulations into the event surface. These surfaces of the site can create all activities requiring large expanses of horizontal space for play, games, exercises, mass entertainment and market. Consequently, three autonomous structures, the vertical cores as a point, the irregular circulation as a line, the architectural form as a surface interact with each other, and make a public surface on a complex site.

Element for Public Space

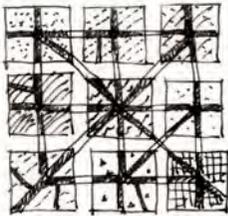
1. Make Territories\_Grid



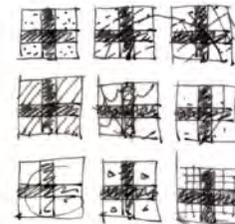
2. Make a Verticality\_Core



3. Make a Underground\_Circulation

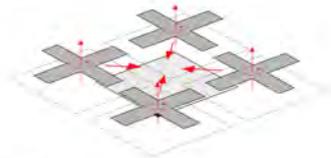


4. Make a Architecture Form\_Tension

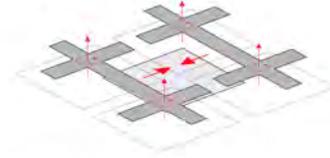


Making a Tension between Elements

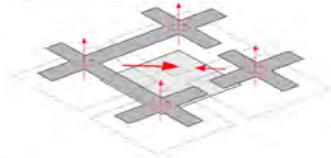
Type #1



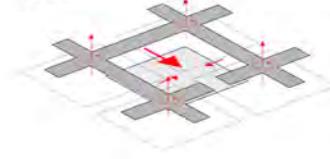
Type #2



Type #3



Type #4



Type #5

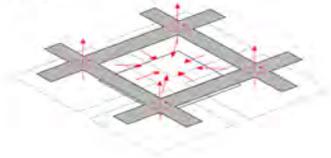


Fig.4-11. The Grid System\_Element.

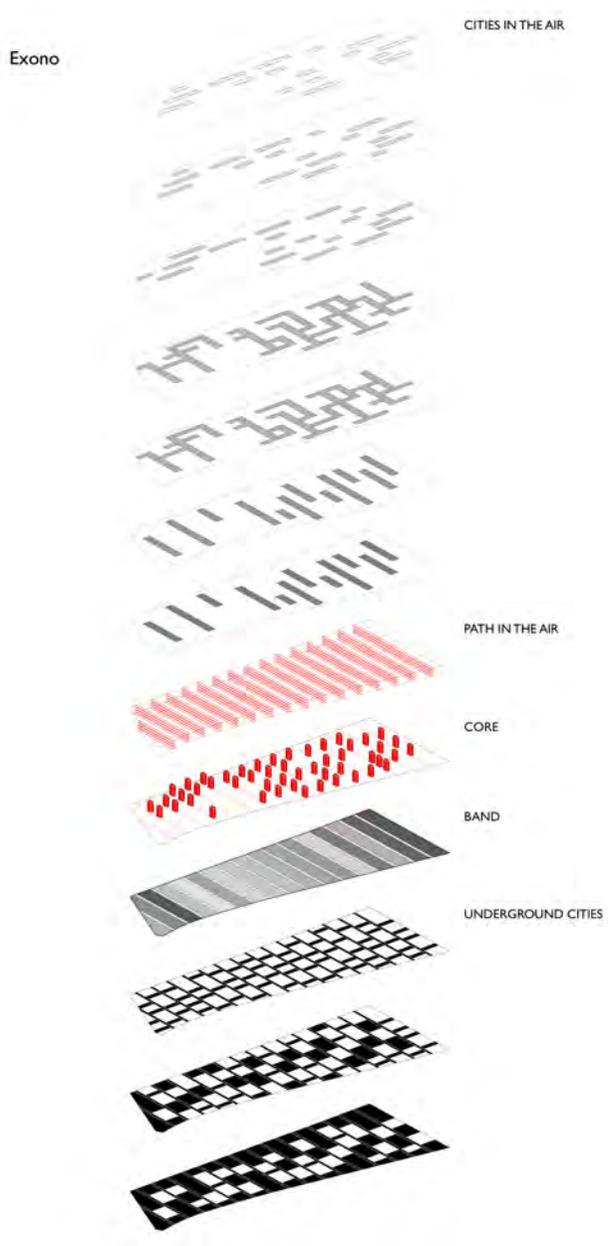
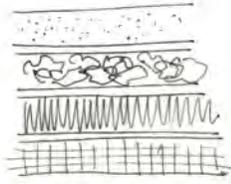


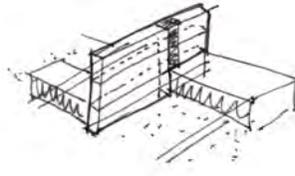
Fig.4-12. The Grid System\_Exonometric.

Element for Public Space

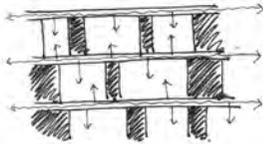
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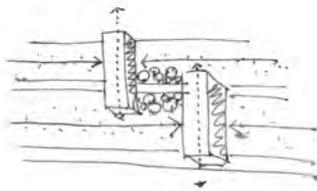
2. Make a Verticality\_Core



3. Make a Underground\_Circulation

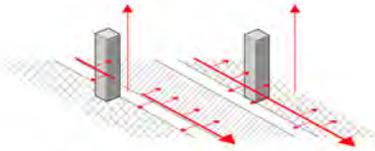


4. Make a Architecture Form\_Tension

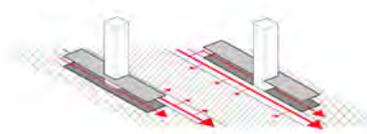


Making a Tension between Elements

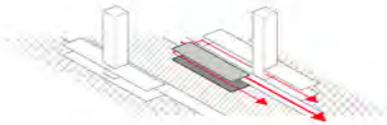
1. Core and Path



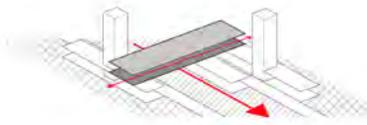
2.A Parallel Mass with a Path



3.A Parallel Mass with a Mass and Path



4.A Intersectin Mass with masses and Paths



5.Attaching Path in the Air

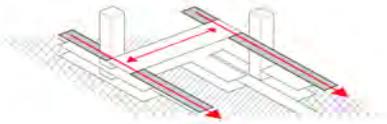


Fig.4-13. The Band System\_Element.

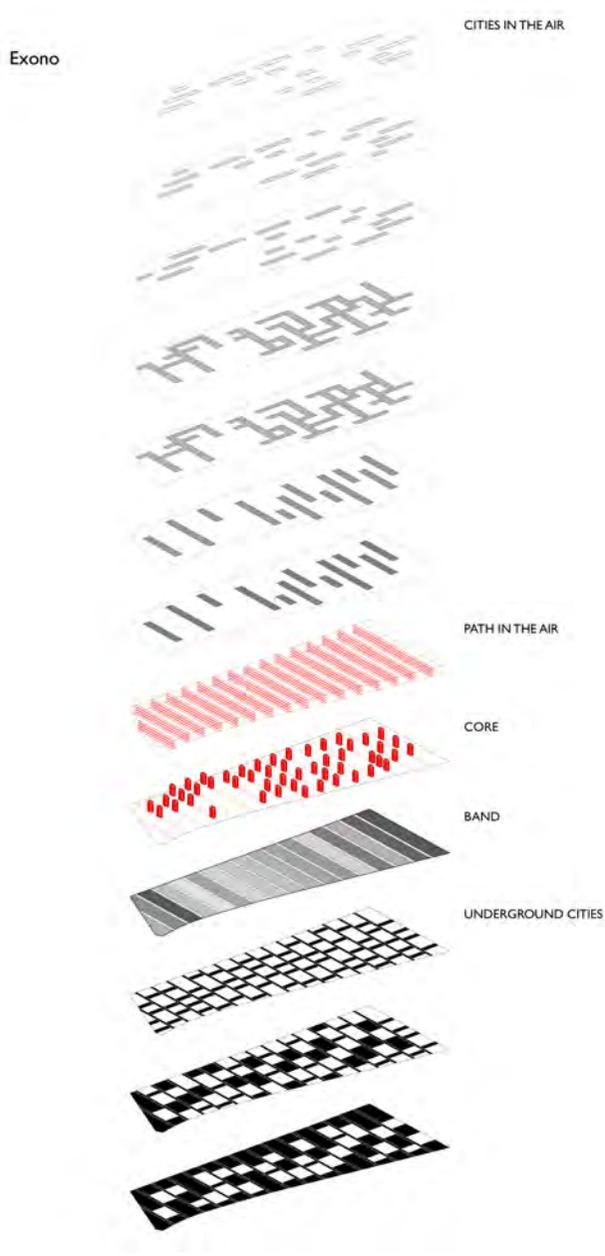
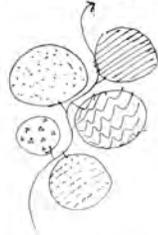


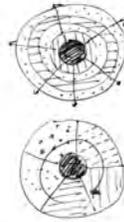
Fig.4-14. The Band System\_Exonometric.

Element for Public Space

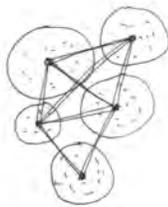
1. Make Territories\_Cluster



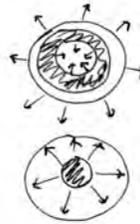
2. Make a Verticality\_Core



3. Make a Underground\_Circulation



4. Make a Architecture Form\_Tension



Making a Tension between Elements

1. Cluster as Territories



2. Core



3. Vertical Public Space



4. Mixing Programs and Public Space



5. Connecting Each Vertical Public Space



Fig.4-15. The Cluster System\_Element.

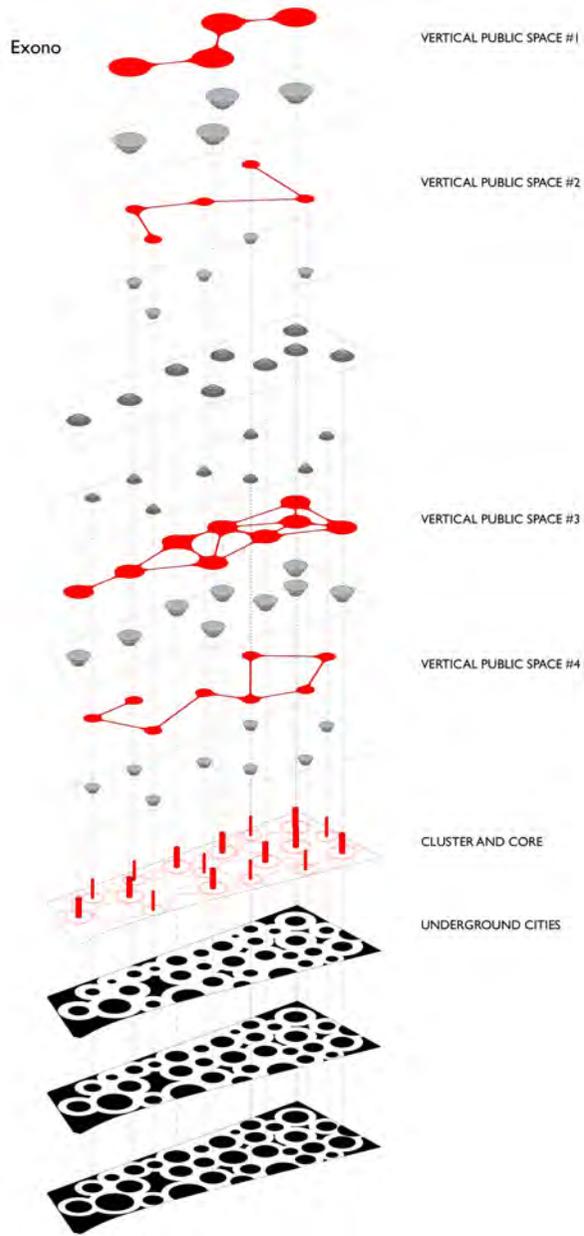
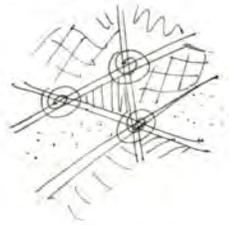


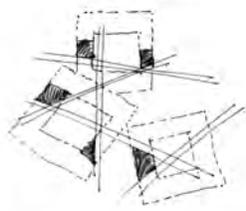
Fig.4-16. The Cluster System\_Exonometric.

**Element for Public Space**

1. Make Territories\_Band



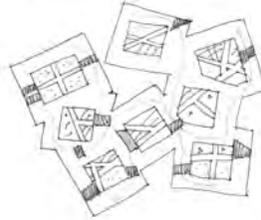
2. Make a Verticality\_Core



3. Make a Underground\_Circulation



4. Make a Architecture Form\_Tension



**Making a Tension between Elements**

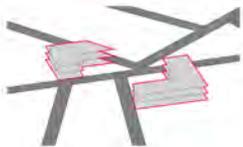
1. Core and Path



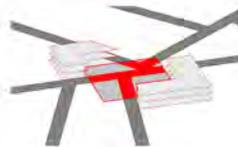
2. Core as Folly



3. Make a Territory



4. Make a Event in a Territory



5. Combine a Territory with a Architecture Form



Fig.4-17. The Point System\_Element.

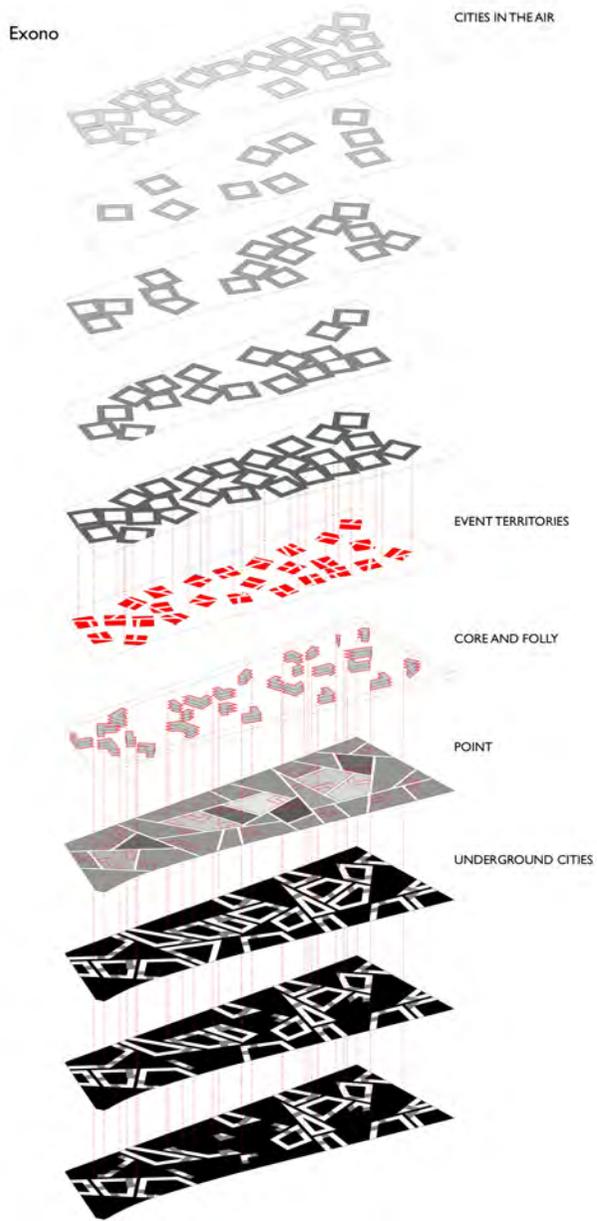


Fig.4-18. The Point System\_Exonometric.

### 4.1.3 Grid System

The historical notion of the grid pattern as urban planning was established by focusing on the bio-political management of the city, such as demographic control, infrastructure, and zoning. This strategy resulted in a “non-figurative” design of the city. City form was reduced into an isotropic and thus extendable grid, which articulated the equal distribution of services and roads throughout the city area.

My proposal for the KTX Suseo station complex appropriates and continues the non-figurative language completely by reversing the old notion of grid pattern. The grid system as the new urban system would be formed by focusing on the public life of the complex. This new urban system sustains public experiencing, life, and space in a complex and diverse away from grids. That is, it is not about city form which articulates the efficiency of function, but it is a relational form which arouses the public life on the public surface within the station complex.

Based on this background, compared with other systems such as band, cluster, and point, the grid system can be evaluated as the best way of organizing territory to form a public space in site. Each grid territory consists of four urban structures; territory, architectural form, verticality, and underground. Based on territory, architectural form mediates between interior space and exterior space, and vertical instrument connects from architecture form to the underground.

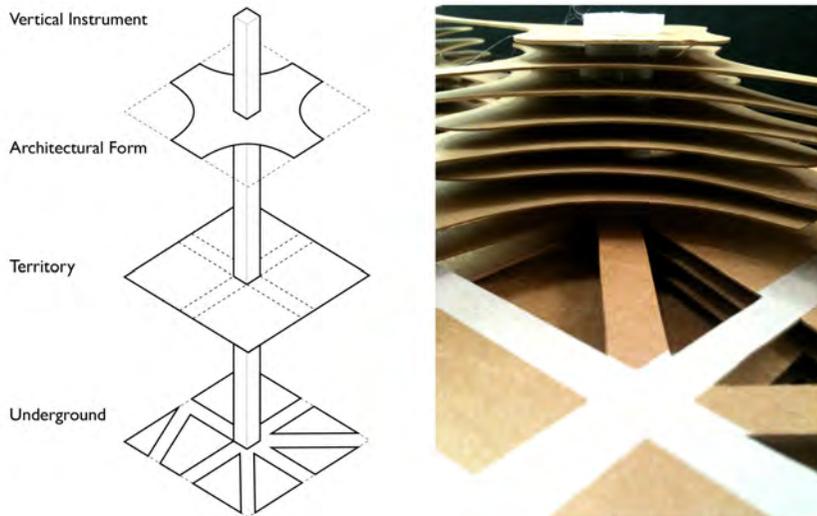


Fig.4-19. The Elements of Grid Territory.

Given these characteristics, a grid territory relates with each other, and then another new grid pattern is created. That is, architectural form and vertical instrument is located on the center of territory that form another new grid which consists of 4 different  $\frac{1}{4}$  grids. Other urban systems are maintained through the interaction between the urban structures, whereas through the urban structures, the grid system is not only maintained but also reinvents the new grid interaction.

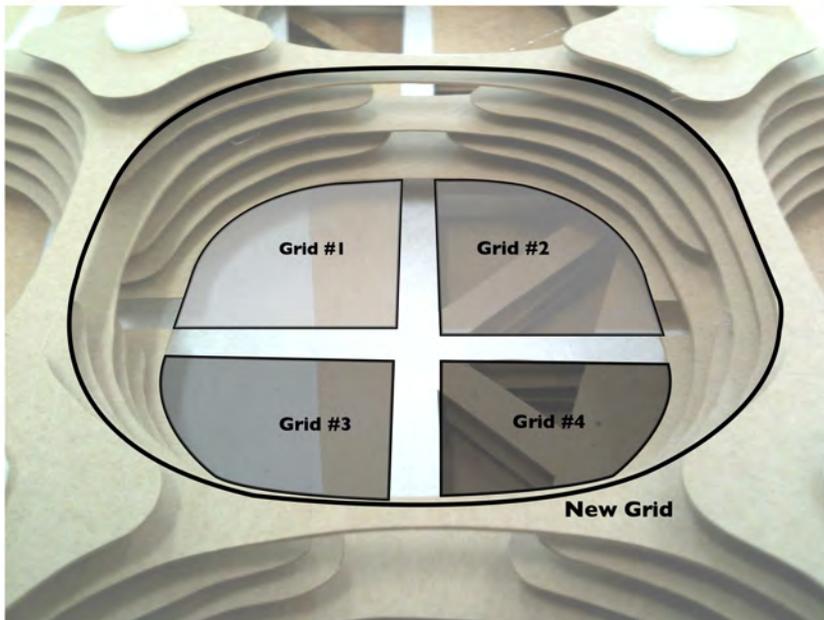


Fig.4-20. The Relationship of Grid Territory.

Two grids patterns interact with the architecture form, underground, and vertical instrument, and then according to the arrangement of programs, their interactions shape its own character. In particular, by overlapping two grid patterns, variable public spaces can be created on a site as a whole, and depending on situation, public surfaces, events, and activities can be flexibly accommodated.

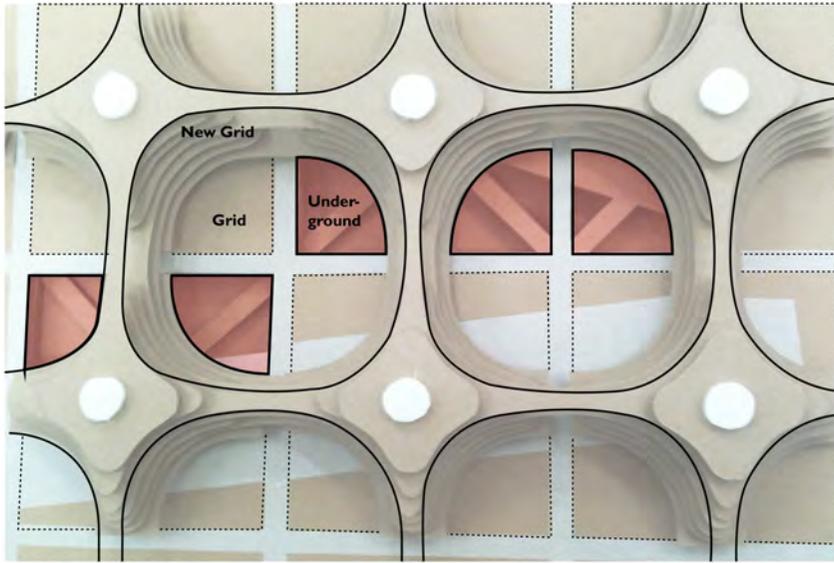


Fig.4-21. The Flexibility of Grid System.

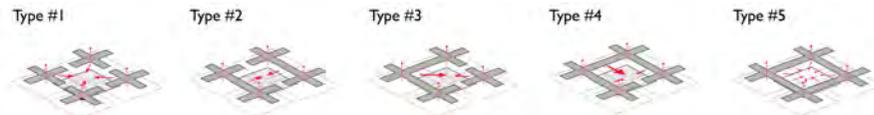


Fig.4-22. The Relationship between Architecture Form and Grid System.

The main hypothesis of urban systems stem from the relationship of urban structures, and the urban systems have to shape public life in spite of the complexity of a site. It means that the urban system should not become just collective forms that consists of urban structure, but should become organizational forms in which complexities and contradiction of the site can be transformed into public life, events, and surface. In this sense, the grid

system can be adapted depending on situation through their self-sufficiency relationship, and flexibility of territory. According to this character, the grid system seems to be the best way to organize territory for public life in a site, and I propose the new boundaries and flow for public space based on the grid system.

## **4.2 Phase 2\_Generating Programmatic Tension**

After experimenting the way of organizing territory, the grid system is judged as a most relational form than other urban systems to form a public surface in a site. In section 4.2, one of the new ways of public space is suggested as the importance of boundaries and place of flow. It means that the tension among programs or conditions give more potential to foster public space rather than the designated public space. However, the present ways of developing a complex is no longer giving a clue for new public space, so starting with the second phase, I present the new concept to create public space by creating programmatic tension in a station complex.

### **4.2.1 Design Concept**

#### **Rethinking Vertical Arrangement of Programs**

This project, more than a mere development, raises fundamental questions regarding the role of the vertical arrangement of programs for public space. Over the past few years, the vertical order of programs has developed into high-rise cityscapes, but it has caused not only the isolation of public life from urban areas but also the separation with each vertical entity.

In the grid system, each territory would be horizontally connected, and

they can form invisible public areas. In particular, these horizontal relationships can be vertically expanded according to the grid pattern. Based on this grid system, the new order of program arrangement is experimented to make a tension between programs for public space.

Firstly, based on the horizontal connection in the grid system, the vertical order of program arrangement can be changed into the horizontal order. In contrast to the vertical order, various program operated by private and public partnerships can be vertically relate to each other, and they can also form a continuous flow between them through the horizontal order of program arrangement.

Secondly, programs are vertically expanded through the tower shapes that pass through different programs. The different programs that are located on different floors interact with these emerging masses. Each program will not be dominated by a single large program, but colonized by a number of masses that are very different from each other and flexible in their uses and their programs. This strategy can intensify public space through the interaction with different programs although they are not designated as public space. It means, as I proposed in section 4.2, new emerging masses can create a new boundary and flow between programs, and they make a public surface in a station complex.

The objective of this concept is to propose the strong link between each different program in order to formulate a new public space as a relational form. The new strategy of program arrangement seems to give new

direction for public space in a station complex, and this shift in the order of program arrangement is a good means for responding to the issue of what public space is within a station complex.

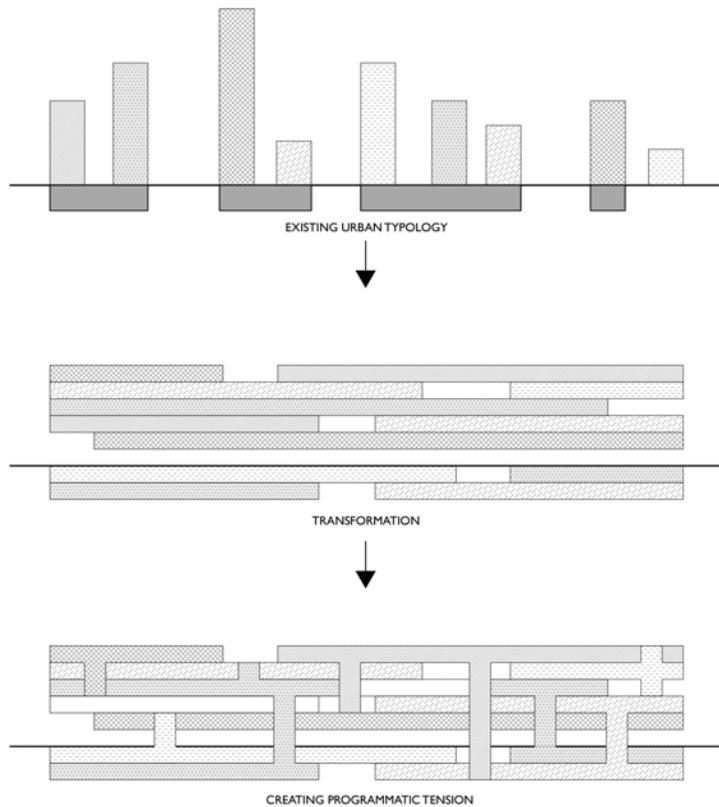


Fig.4-23. The Diagram of the Program Arrangement for New Public Space.

## 4.2.2 Cross Sectional Program Layout

### 1) Program

The KTX Suseo station complex consists of 11 programs; a KTX

Suseo station, parking lot, commercial, culture, market, sports facility, public facility, vertical park, hotel, residence and office. It is divided into 3 parts; 4 floors underground, 9 floors on the ground and 6 towers.

The KTX Suseo station, parking lot and commercial facilities are located underground. On the ground level, crucial vertical towers, cores, and a public park are designed, and the public can access freely to the ground level. From the second floor to 9th floor, various programs are horizontally arranged and have various circulation and nodes between programs. They also connect with each other through vertical program masses. Residential, office, hotel, and commercial facilities are developed as vertical towers above the 9th floor.

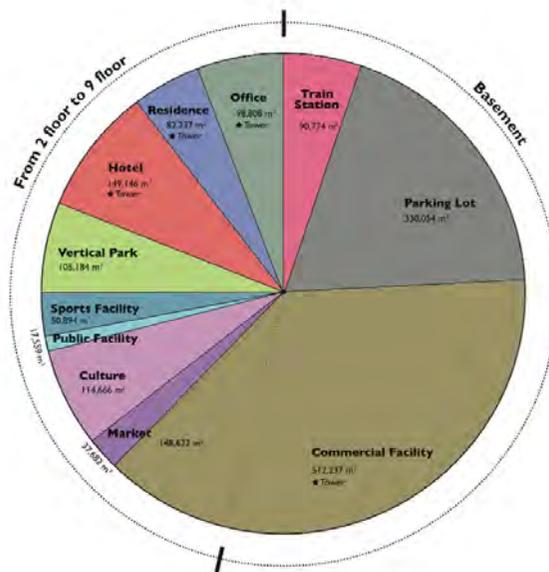


Fig.4-24. The Diagram of Program Area Ratio.

Program Arrangement

	Parking		Hotel
	KTX Station		Residence
	Commercial		Sports
	Market		Vertical Park
	Culture		Public Facility
		Office	



B4



B3



B2



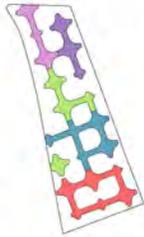
B1



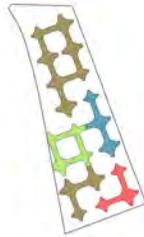
1F



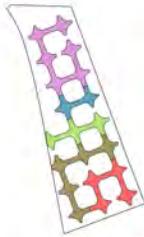
2F



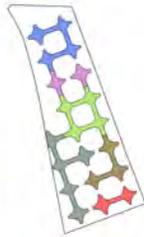
3F



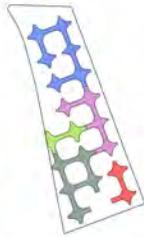
4F



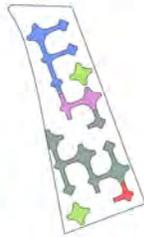
5F



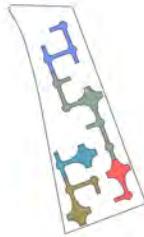
6F



7F



8F



9F

Fig.4-25. The KTX Suseo Station Complex Site Planning.

## 2) Section

The Tension among programs in the KTX Suseo station complex can be created through sectional strategy. The programs that are horizontally arranged expand into the vertical towers, and then they can make a relationship with other programs. These vertical masses are designed from the B3 floor to the 9th floor, and they which are unified with circulation near the main cores passing through the various programs.

The relationships through the vertical program masses form the boundaries between programs for public surface. In the relationship, heterogeneous programs directly face each other without intermediate spaces, and then events and activities can be created. Unpredictable programs can also emerge near the boundaries between vertical masses and horizontal programs.

Even if some programs are usually considered as private space, they can be created as public space through the tension with other programs. It is because public space is not a physical entity, but a condition depending on situation. Therefore, the sectional strategy for public space in this design project would give a crucial clue to make a public space through the tension between heterogeneous programs.



Fig.4-26. The KTX Suseo Station Complex Site Planning.

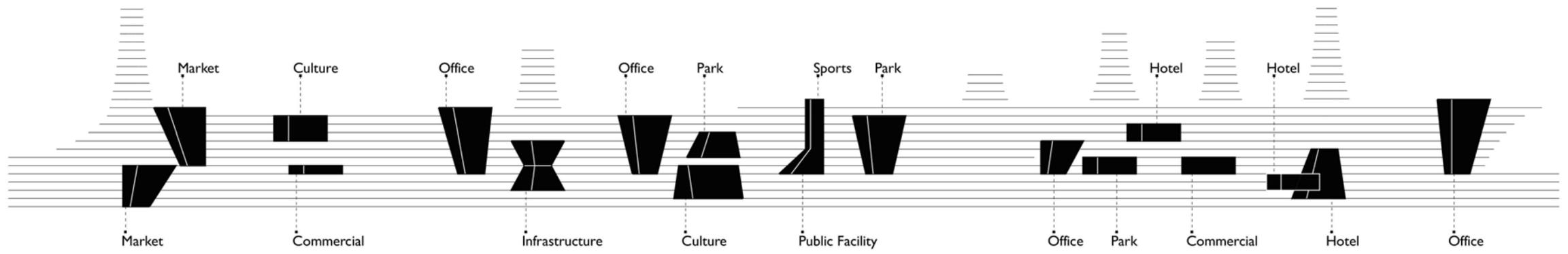


Fig.4-27. The Diagram of Vertical Program Masses.

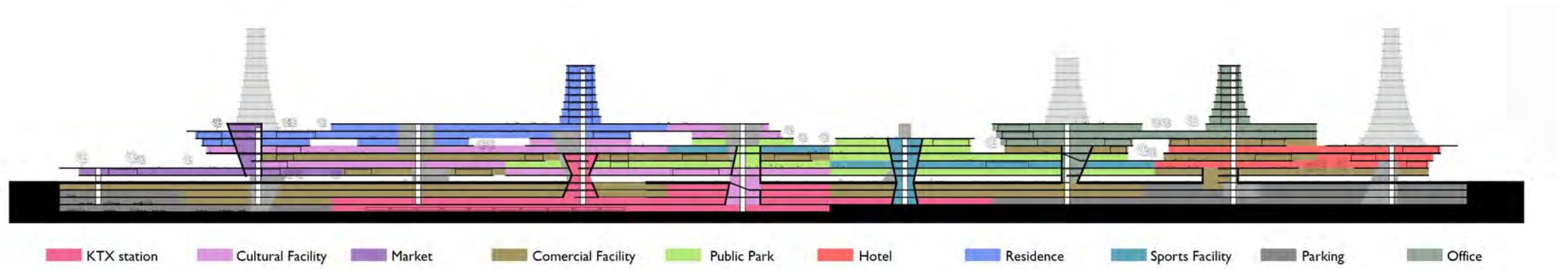


Fig.4-28. The A-A' Section.

## **4.3 Phase 3\_Circulation Nodes**

### **4.3.1 Design Concept**

The existing grid pattern formed rigid circulations and nodes that are placed at regular interval, and based on this it can be efficiently controlled. The new grid system has not only efficiency but also flexibility in terms of circulations and nodes.

Circulations in the new grid system can be changed within grid territories, and through these flexible circulations, the new nodes are designed in different places compared to the existed grid nodes. Furthermore, in relation to architecture form and verticality as urban structures, the main cores are designed in the middle of grid territories, and then they as crucial nodes make a relationship with another circulations and programs.

The three crucial nodes that are designed in the grid system make a public surface through the various circulations, and as they relates with the vertical masses that are created through the sectional strategy, event and activities can be created near the crucial nodes.

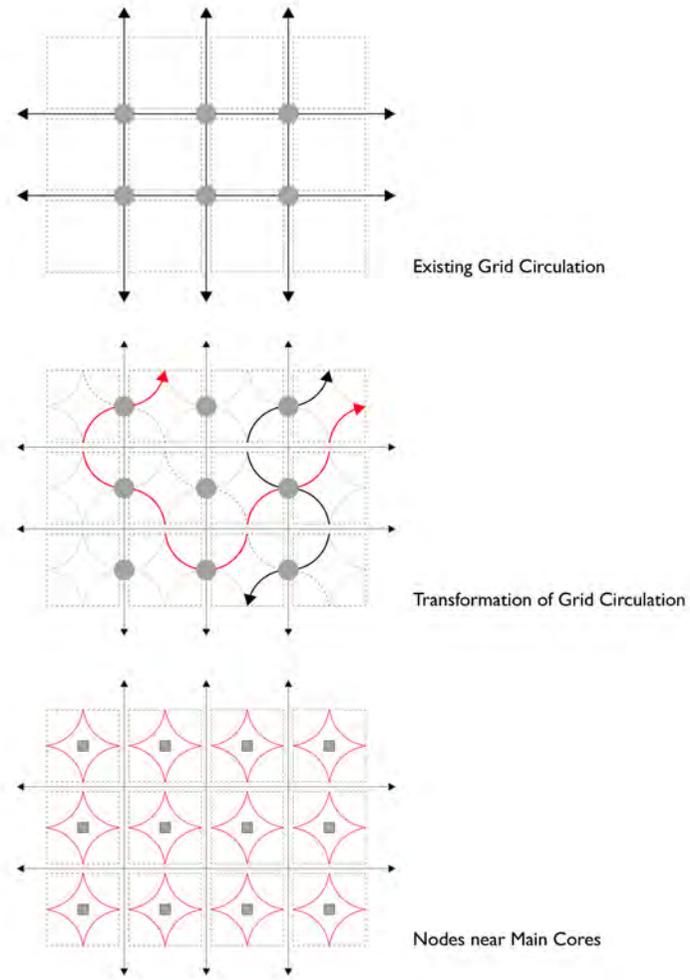


Fig.4-29. The Diagram of The Circulations and Nodes for New Public Space.

### **4.3.2 Plan Program Layout**

The most important strategy of plan is to make nodes which are overlapped by various circulations. Programs are arranged according to the grid pattern, but 2 or 3 programs share one grid territory rather than one program placed in one grid area. It means that various circulations can be created based on the program arrangement, and in particular, crucial nodes can emerge by interweaving circulations near the main cores. By adding the vertical masses, circulations would be changed into events and activities, and then these nodes can become public spaces.

Another strategy of the plan is to make a continuous circulation between different programs. This means that the KTX Suseo station is designed as a unified and integrated complex through the continuous circulation system, not a separated and divided complex, in order to freely access the boundaries, nodes, and vertical masses between programs.

As a result, the one unified circulation in a site plays a role as a mediator between programs, and it gives potential to make a public space through creating nodes in which the public can experience various events, activities, and new programs.



Fig.4-30. The Ground Plan.



Fig.4-31. The B3 Plan.



Fig.4-32. The 2st Floor Plan.

## 4.4 Summary

The KTX Suseo station complex is designed through the three new ways of generating public space which are based on the case studies in Chapter 3; the way of organizing territory, the creating boundaries between programs, and the creating of nodes interweaving circulations. Based on this hypothesis, the KTX Suseo station complex was developed in two phases. The First phase is to design the site through the way of organizing territory, and the second phase is to develop the program arrangement and circulation through the creating of tension like boundaries and nodes between programs. As the KTX Suseo station complex was developed through the three new ways for public space, it has various public spaces as relational forms from urban scale to interior space.

In first phase, which is based on the grid system, the site is organized as a whole, and the grid system has a different character compared to the old notion of grid pattern as a tool of master planning. It is because the grid system is not a way of zoning, but an organizational form through the four urban structures; territory, architecture form, verticality, and underground. They make a relationship between them, and then they are transformed into the grid system. In particular, territory, one of the urban structures, is formed into a public space on the ground level, and it can create other public space again through the relationship with other urban structures. As a result, the urban scale public space would be created through the grid

system, and all programs, circulation, and public space are based on this grid system (Fig.4-34).

In the second phase, the programmatic tension is created as a new public surface. It is based on the relationship between programs, not just functional arrangement. In particular, the sectional strategy plays a role to make a tension between programs, and it can be formed as a public surface without intermediate spaces. These unpredictable boundaries causes events, activities, and even new programs, and the public can experience these tensions as new public space (Fig.4-35). In terms of the strategy of plan, the continuous circulations can also be created, and near the main cores, they make a crucial node by interweaving with each other. This means that the KTX Suseo station is designed as a unified and integrated complex through the continuous circulation system, not a separated and divided complex, in order to freely access the boundaries, nodes, and vertical masses between programs (Fig.4-36).

In chapter 4, the KTX Suseo station is developed based on the new ways of generating public space. This hypothesis is focused on the new notion of public space as a relational and organizational form and not as a static entity. In particular, various programs, operating bodies, and the public would be mixed in the complex, and these can give a clue to form new types of public space. Based on this situation, the new ways of generating public space in this thesis can give an answer to the search for a new public space that reflects a paradigm shift.



Fig.4-33. The Perspective View.



Fig.4-34. Urban Scale-Public Space in the Grid System.



Fig.4-35. The Programmatic Tension for a New Public Space.



Fig.4-36. The Crucial Node for a New Public Space.

## **Chapter 5. Conclusion**

This thesis aims to reconstruct the notion of contemporary public space. Public space has been existed in our common lexicon since the beginning of the first urban settlements. However, contrary to this general perception, public space is rather changing its condition which evolves and adapts depending on the period. In particular, through the design project, this thesis suggests not just the solution but the alternative for a new concept of public space.

It seems that the importance of public space has been indecisively acknowledged to public but it is hard to definitize categorically. Moreover, the physical indecisively public space such as parks, streets and even empty space between buildings would be recognized as public space, but these spaces are defaulted public space. In other words, they just have been formed as surplus spaces in urban based on the accessibility and openness without reflecting the changing society. However, as the society is evolved and changed, the notion of public space is also evolved and changed. It means that the evolved method to form public space that can adapt for evolving society is needed rather than the uselessness of existed default public space.

Futhermore, because of the impact of capitalism and urbanization, the complex facility that is mixed with various programs was developed. In addition, the transportation hubs play a role as mega public space, and at the

same time they include private facilities such as commercial, residential, and cultural facility. These various programs including public space not only create ambiguous condition, situation and boundary but also make people have doubts in the notion of public space.

As stated above, the physical notion of public space are still considered the crucial element for public life, but in order to design and reinterpret public space in a complex society, a new perspective and design methodology of public space should be required. This thesis particularly focuses on suggesting a new alternative with designing the KTX Suseo Station and its functions as transportation hubs and mega-public of Seoul.

Before designing the KTX Suseo station, design study hypothesis for generating public space in a station complex was defined based on case studies in Chapter 3 and references in Chapter 4. The first hypothesis is that the paradigm shift of designing the site from functional zoning to organizing territory. The second hypothesis is creating the public surface from the designated public space to the boundaries between programs. The third hypothesis is the incorporation of the possibility of public events from a place of gathering to a place of flow. These three hypotheses for public space are concentrated on relationship, tension, and flow among programs, not on the physical boundaries of public space. Based on the direction of these three new hypotheses of generating public space, this design project has taken phased process.

In phase 1, as a way of organizing territory, the site was developed

through the grid system which consists of four urban structures; territory, architecture form, verticality, and underground. In the grid system, the urban-scale public space was created on the ground, and public surface was formed through the relationship between urban structures. In phase 2, the vertical program masses as the sectional strategy were developed, and they make crucial boundaries as the programmatic tension for public space. The continuous circulation was also designed over the whole site, and it connects crucial public surfaces in a complex. In addition, even if the design process focuses on the site conditions and situations, it is possible that the boundary between the KTX Suseo site and its surrounded environment would be designed through the same hypothesis, and the site that was developed by the grid system seems to interact with its surroundings through its own relational system.

As a result, I emphasize the situation and condition that should be based on a public area or surface through the design project rather than the physical public space. It does not imply the useless of physical public space, but it is experimented the evolved public space in the contemporary era. The more complex our society, the more public space should be transformed, evolved, and adapted, and I believe the new ways of generating public space in this thesis can give a new direction for the new evolved public space.

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## 국문초록

# KTX 수서역 설계를 통한 새로운 공공공간의 실험에 관한 연구

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‘공공성’이라는 개념은 넓은 영역에서, 다양한 의미로 사용되어 지고 있지만 대부분의 사람들은 그것의 의미에 대하여 정확히 설명하지 못한다. 이러한 ‘공공성’의 불명확한 개념과 인식으로 인해 ‘공공공간’ 역시 상황에 따라 다른 방식으로 이해되곤 한다. 이 논문의 목적은 디자인 실험을 통해 모호한 공공공간을 새로운 개념과 접근방식으로 설계하고, 진화하는 공공공간의 대안을 제시 하는 것이다. 특히, 도시에서 교통시설의 허브 및 생활의 공간으로 변화해 가는 철도복합 민자역사의 공공공간 설계를 통해 구체적인 설계안을 제안하였다. 우선, 사례조사 및 분석을 통해 기존의 철도역사의 공공공간의 성격에 대하여 규명하고, MVRDV와 OMA의 파리의 레스 할레스 건축공모전 작품분석을 통하여 새로운 디자인 실험을 위한 가설 및 이론들을 세웠다. 이렇게 세운 가설을 바탕으로 물리적인 공공공간 보다는 다양한 프로그램 및 시설, 민간기업 및 공기업이 복합적으로 혼재 되어 있는 철도복합 민자역사에서의 공공공간을 이루게 하는 상황 및 조건들을 새로운 디자인 실험을 통해 설계하였다.

공공공간은 사회가 빠르게 변화하고, 복잡화 되어갈수록, 그와 동시에 변화하고 진화하며 적응하여 가는 공간이다. 이러한 공공공간을 설계함에 있어 본 논문에서 공간자체의 디자인보다 공공성을 이루는 상황과 조건에 초점을 맞춘 것은, 물리적인 공공공간의 약화를 의미하기 보다는 빠르게 변화하는 사회에 발맞추어 진화하는 공공공간의 실험이라고 할 수 있을 것이다. 디자인 실험을 통해 새롭게 제안한 KTX 수서역 철도복

합 민자역사의 공공공간은 변화하는 사회와 복합화 되어가는 도시에 시민을 위한 공공공간 형성에 새로운 방향을 제시할 것이다.

주요어 : 공공공간, 디자인 실험, 철도복합역사  
학 번 : 2011-20587