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**A STUDY ON A REFORMATION OF THE SUBTERRANEAN SPACE IN
THE NOKSAPYEONG STATION TO A LANDMARK SPHERE FOR THE
FUTURE SEOUL CENTRAL PARK
(FOCUSED ON A DEVELOPMENT OF CULTURAL PLATFORM
EQUIPPED WITH AIR PURIFYING FACILITIES)**

Abstract. Linking the Yongsan US military base that is developed to be the Seoul Central Park with the breast of mountain Namsan, this study attempts to explore how to maintain the Noksapyeong Metro Station as the Park's node, which, otherwise, is apprehended of being a redundant city infra-structure buried into the mountain's mid-slope. Through analyzing the developing potential of the Noksapyeong station, in the sense of history, as a landmark connecting the future Central Park to Mt. Namsan and the Han River, the purpose of the study is to propose new function and programs that will make a subterranean station a cultural and social public space for the future.

Keywords : US military base, central park, Noksapyeong Station, social public space, historical sense

1. Introduction

1.1 Background and Purpose of project. The Noksapyeong Station was originally planned, in expecting the relocation of Seoul City Hall in the area, as a large cylindrical space with a depth of about 45 meters and a floor area of about 7,600 square meters. It was built for transfer centers with an island-type platform, where lines of 6 and 11 are supposed to pass through. The dispersion of the relocation plan of the city hall, however, has turned the present station to a simple regular subway platform with far fewer passengers compared to its size since its opening on December 15th, 2000. Despite its splendid structure, which is ranked not only as the deepest underground station but also as the second most beautiful subway station among other six station in Seoul Metropolitan Subway, a poor positionality and indicative force has degraded the Noksapyeong Station to a mere underground entry in the middle of nowhere, and to a directional sign standing on the Noksapyeong three-way intersection only with its glass dome. From a macroscopic viewpoint, however, it is needed to take both programmatic and functional measure on the station space which might be degraded into a dark infra-facility buried in the forest of the Park, since the site is expected to be an important node connecting the present Yongsan Military Base that is to be planned for the Central Park of the city, to the foot of the Mt. Namsan within the next 20 years. In accordance with the sense of history insinuated in the current location, the study aims at examining the potential force of the Station as a landmark managing the interrelationship among the Mt. Namsan, the Han river, and the future Central Park, and proposing new functions and programs for this underground station to provide the future Park with cultural as well as social public space.

1.2 Contents and method of project. The study, under the premise of the military base converted into the Park, departs from the question of how to recognize the current subway station as a social public space and, by extension, how to reprogram it into a cultural sphere in the future society. Targeting the area around the Noksapyeong Station, this study attempts to reconsider the role of subway station located between the surrounding commercial district and the military base (the future city Park), and to suggest a plan utilizing the station space for a purification facility in order to warn and handle the looming fears of fine dust, with various exhibition halls. Extending vertical air-purification system from the underground space to the ground, the project attempts to construct a air-purifying structure for registering a landmark place and to create green space that links the future Park organically with the communities at the foot of Mt. Namsan. The study is proceeded as follows : 1)coming up with an idea on the basis of the problematique acquired through reasons for selecting the site and site analysis. 2)establishing a land use plan through the design process after analyzing the site upon physical, historical and social aspects. 3)analyzing the installability of air purification facilities fit in a large underground facilities, then the necessary operating principles and connection to the Park on the ground are to be taken into account. 4)organizing the necessary equipment and programs in their scale and in relations with the existing subway station. 5)designing the shapes and forms of purifying process to be shown outside.

1.3 Basic planning overview

The design plan for this study and an overview of the physical area and program of the site are as follows :

Official title	Foundation	Location of the site	Plot area	Building area	Design concept
A Reversed Obelisk-urban oxygen cylinder	Air pollution research centers and exhibition halls using subway stations	Subway station line no.6, Noksapyeong Station	1,320 m ²	10,180 m ²	Green plate/ Air purification system/ Landmark

Table 1. Design plan overview

2. Reasons and analysis for site selection

2.1 Site selection and Reasons. Predicting the present military base is to be converted into the City Central Park(Yongsan National Park), the study proposes that the Noksapyeong Station, as the entry toward the Park, is to become the platform of traffic means crossing the Park along with the Samgakji Station in the future in which the presence turns to the past, and addresses the sense of place implied in the site. In addition, the study selects the site because not only overcoming the physical difficulties such as the multi-layered level difference at the foot of Namsan Mountain, but also managing temporal and transcendental coexistence of the past and perpetuality enable the site to possess a subjective time landmark as a theater of memory, which is to be perceived by both the park-users and local residences. It reflects the fact that the past(presence) is kept in the future as the city's past is still alive in the presence.

2.2 Site analysis

2.2.1 Macro analysis : Park planning in the Seoul and the Green axis of Noksapyeong. Noksapyeong, which means “a field full of green grass”, is the base supporting the Noksapyeong-broadway that runs from the starting point of Banpo-daero to Hoehyeon Station and Myeong-dong Station. The road passes through Mt. Namsan,

the largest green belt in Seoul, and is expected to be directly connected to the future Yongsan National Park. This broad road is to act as the backbone of the green belt axis in the northern part of the river while linking the green area along the Han River in the south end with the Mt. Namsan.

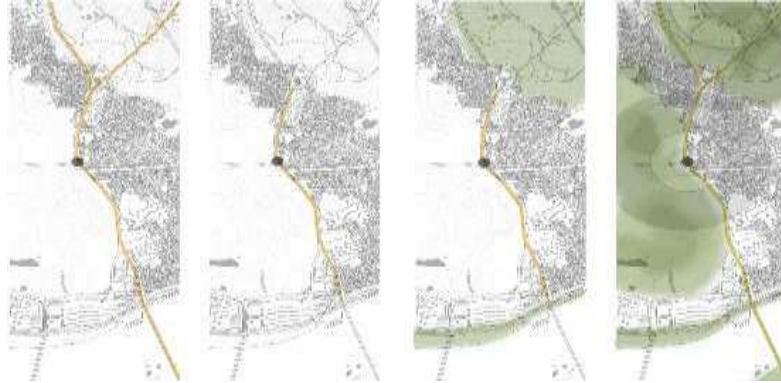


Fig 1. Changes in Seoul's Greening Axis around Noksapyeong Station Area

2.2.2 Micro analysis : Yongsan National Park and Itaewon General Commercial Facilities.

To the east of Noksapyeong three-way intersection, there is Itaewon-dong hill where every alley is filled with commercial districts by an excessive gentrification, and

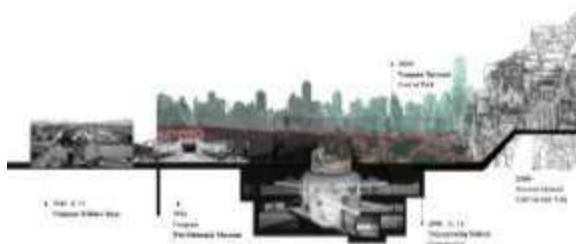


Fig 2. Noksapyeong Station Microland Analysis Collage

the military base is located to the west. The site area, as the main green-axis of Seoul, is where various cultural boundaries are collided with each other, with the severe differences of ground level from Namsan Mountain to Noksapyeong-broadway and the Military Bases. The Noksapyeong Station is, in particular, isolated from the surrounding context with its entrance disconnected

from Itaewon to exist like an island on the road.

3. Design guidelines and the review of alternatives

3.1 Conceptual Approach. Regarding the current position of the Station as urban void where the different times are intersected, the design attempts to explore the Noksapyeong Station's potential to be, in accordance with the historical sense, a landmark linking the Namsan and Han River with the future Park, and to develop new functions and programs that make the current Station a social public sphere in the future in which the current situation is to be past.

3.2 Design strategy. Recognizing the urban continuity in which the presence always chases the past, the study redefines the temporality and perpetuality as well as the simultaneous sense of the temporal and perpetual through the layers of time. In other words, focused on how the current spatial structure on and around Noksapyeong Station meets the foot of the primitive Mt. Namsan, the study understands the Station, against the major high-rise landmarks such as the Namsan Tower and 63 Building, a reversed high-rise with time layers stacked down toward subterranean depth. The design is

proceeded as follows:

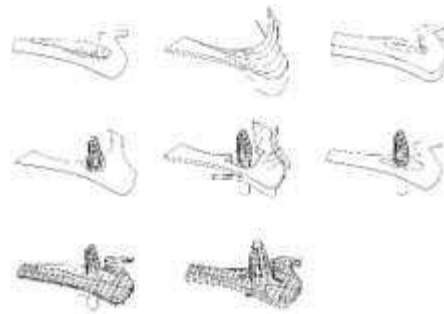


Fig 3. Composition of green plate

- 1) Setting the subway platform/cylindrical waiting room as the node of the Park network in Yongsan area and applying the new program.
- 2) Creating a green plate linking Itaewon area with the future National Park and promoting an organic connection with subway space.
- 3) Manipulating the air flow through the movement of the subway trains and controlling the flow and return of the air in the wall.

3.3 Program. As a future landmark, internal programs include air purification spaces, research institutes and underground botanical gardens as warning indicators for fine dust.

rogram	P	Air purification Tower	S	ubway Facilities	L	ibrary	Res	earch Center	Air purification Garden	E	xhibition Gallery	G	reen Plate	
rea	A	6,850 m ²	1	,880 m ²	4	,320 m ²	8,7	60 m ²	2	8,230 m ²	2	,300 m ²	1	1,320 m ²
ontents	C	System control with LED media facade	M	anagement of parks and subway	M	eting room, café, study room	Ex	periment laboratories, machine room	G	allery, hall	G	h	A	rtificial green garden

Table 2. Program configuration

- 1) The air purification tower, on the ground, is equipped with an immediate information system telling the figures of concentration of fine dust in the city.
- 2) Color change of the structure in accordance with the dust concentration notices the citizens the air pollution levels.
- 3) Elevated green plates around the tower connect the surroundings and provide pedestrians' flow of movement on the ground.
- 4) In the underground space immediately below the tower, subway platform is allocated in connection with botanical gardens and research facilities with air purification function.

3.4 Case study. The features were analyzed, specifying practical examples of how the insertion of contradictory programs in accordance with the historical sense can have an architectural effect, along with existing programs.

3.4.1 Jones partners/UCLA Chiller Plant & Cogeneration Facility. The project exposed the city's mechanical infrastructure facilities, which are not generally shown to have a huge heat exchange plant installed on the UCLA campus, as contradictory forms within the campus and residential areas. The main purpose of education and facilities programs is to demonstrate the purpose of this program in

combination with practical research facilities that look like factories where machines are exposed.



Fig 4. UCLA Chiller Plant & Cogeneration Facility

3.4.2 Bernard Tschumi/National Library of France. The project, one of the plans for a competition in the National Library of France, broke the framework of the library's general program layout and proposed a new type of library on knowledge space from a future perspective. It wanted to maximize the effects of program circulation through the intermingling of the reading and the exercise space, and the direct movement of the people that would occur accordingly. The program could mean architectural behavior itself as a place for the event to take place, especially in this case by inserting a running track into a library so that the formally open architecture can act as a generator in the city.



Fig 5. National Library of France

4. Design Result

4.1 Site plan and Plans

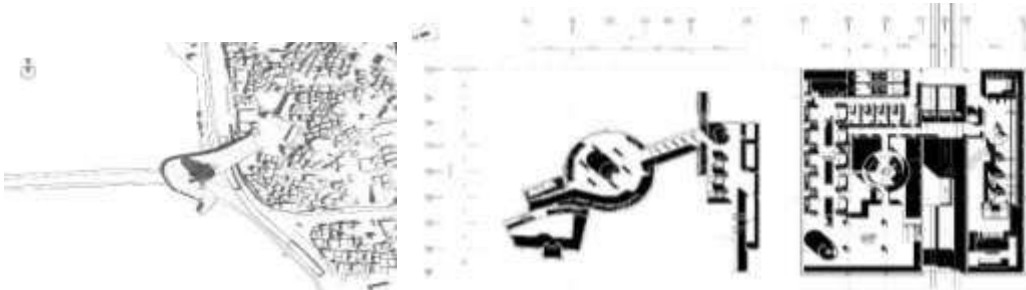


Fig 6. Site plan and floor plans

4.2 Sections

4.3 Elevations

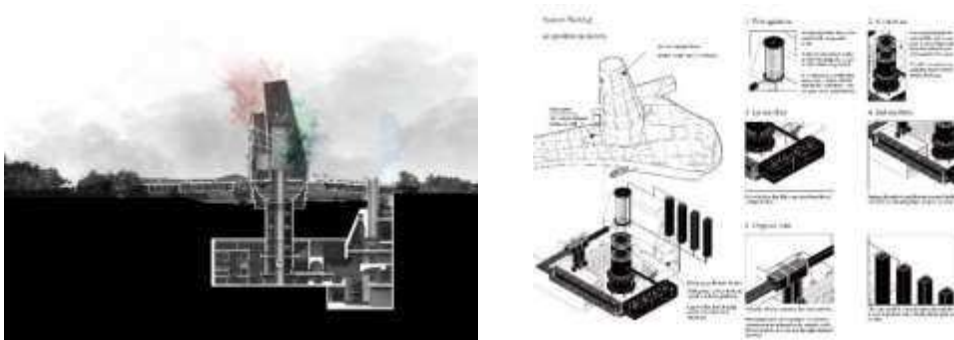


Fig 7. Section plan and system buildup

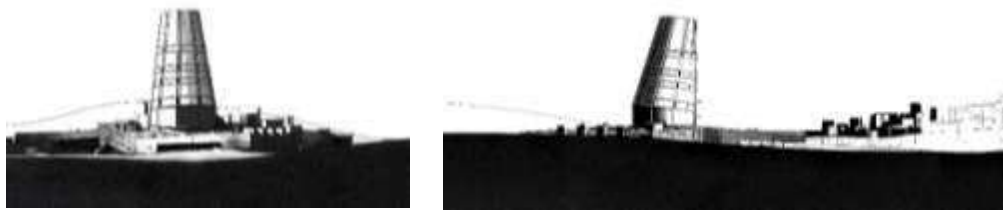


Fig 8. Elevation 1, 2

4.4 Model photo and detail scenes



Fig 9. Model photo and detail scene1, 2

Conclusion. In the study, we attempted to draw the existing underground space of the Noksapyeong Station from a perspective of an “ancient future”, and to propose a design for transforming the current military base into a National Park by using historical senses. The proposal was focused on how to create landmark programs containing today’s environment to foresee the Future Park, how to turn the Station space itself into an air purification system for preparing against an increase of fine dust, and how to utilize the subway station as social public sphere in the grand nature in the city. As a consequence, the study utilized the underground space of Noksapyeong Station with a magnified air purifying system, and planned a cultural landmark of the future society as an another landmark in Seoul in linking with the Mt. Namsan and the Han River, and gained knowledge that it is connecting the presence to the future that maintains the sense of history in the city.

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**ИССЛЕДОВАНИЕ О ПРЕОБРАЗОВАНИИ ПОДЗЕМНОГО
ПРОСТРАНСТВА СТАНЦИИ НОКСАПЁНГ
В ДОСТОПРИМЕЧАТЕЛЬНОСТЬ
БУДУЩЕГО ЦЕНТРАЛЬНОГО ПАРКА СЕУЛА
(ИССЛЕДОВАНИЕ СОСРЕДОТОЧЕНО НА РАЗРАБОТКЕ
КУЛЬТУРНОЙ ПЛАТФОРМЫ, СНАБЖЕННОЙ
ВОЗДУХООЧИСТИТЕЛЬНЫМИ СООРУЖЕНИЯМИ)**

Абстракт. В исследовании даны предложения по сохранению станции метро Ноксапёнг (Noksaryeong), связывающей будущий центральный парк Сеула (бывшую военную базу США Юнсан (Yongsan)) и вершину горы Намсан (Namsan), в качестве паркового узла, который в противном случае становится избыточным элементом транспортной инфраструктуры, заключенном внутри склонов горы. Анализируя потенциал развития станции Ноксапёнг в историческом смысле, как ориентир, соединяющий будущий центральный парк с горой Намсан и рекой Хан, целью исследования ставится предложить новые функции и программы, которые сделают подземную станцию культурным и социальным общественным пространством.

Ключевые слова: военные базы США, центральный парк, military base, central park, станция Ноксапёнг, общественное пространство, история.