

Lim Ji-woun, Koo Young-Min
jwhope0@gmail.com
IU, Incheon, Republic of Korea

AN INTEGRATED PLATFORM A PROPOSAL FOR AN INTEGRATED URBAN PLATFORM CONNECTING SEOUL GANG BYUN METRO-STATION TO EAST SEOUL EXPRESS-BUS TERMINAL

Abstract. This study examines the design strategies how to make a subway station that, as urban artifacts, participates in the city programs, related to the socio-cultural domain of the city, and how to establish a solid urban environment that corresponds to neighboring context by recoding urban space. Selecting the Seoul Gang-Byeon Station as a site, in particular, this thesis attempts to connect the metro station to the East Seoul Bus terminal, to reconstruct the relationship of socio-cultural realm between the Han-River and area of the city, and eventually to have the station and the terminal integrated with surrounding context in multilayered relationship to be act as a contextual urban platform.

Keywords: Gangbyeon station, Dongseoul terminal, Contextural urban platform.

1. Introduction

1.1 Background and Purpose

Having an inseparable relation with urban structure by ways of speed, movement, and linkage, subway stations in the contemporary city is regarded to be a contextual building that associate with surrounding context through multiple layers according to use and purpose; Nevertheless, it is not exaggeration to say that subway stations, so far, have been indiscreetly constructed only in concern with distance, traveling time, and local traffic. Such sporadic urban expansions intervened in already disconnected urban space by indiscreet urban development, to result in irrational and unreasonable exploitation.

Programmed as a transit station for the East-Seoul expressway bus terminal, for instance, the Kangbyeon station is, unworthy of its poetic aura inherent in the name 'Gang_Byeon' that means riverside, merely an elevated railway built in the middle of the traffic road. It is, moreover, not only an inconvenience in connections and access between the subway station and the terminal, but also a confusedness in the transfer function itself that has made the station disconnected with the surrounding community.

The study attempts to criticize the subway stations uniformly built anywhere in the city with no relationship with the surrounding context, to confirm the fact that a subway station, as a public space, requires not only a traffic function, but also a sense of place to be shared, and to verify that a station, as a complementary device responding to psycho-cultural aspects of the city, should establish a platform that helps communicate with the surroundings.

The study aims at, therefore, providing people with one-stop service by connecting the station platform with the bus terminal, introducing the riverfront atmosphere to the city, and proposing, as infra-scape, an integrated city platform that links waterfront

space with the city physically as well as psychologically.

1.2 Scope and Methods of the Study

Selected target area includes Northern Riverside Highway and elevated railway station built as a result of radical urbanization and urban sprawl, And the border where terminals collide with the existing urban areas. The study is to investigate, with the two transportation infrastructures, the context fragmentarily dispersed around the selected site, to analyze various border conditions hidden in the context, And to explore spatial and programatic potentials that can link with the periphery in order to shape an architectural platform.

2. Site Analysis

2.1 Site Condition

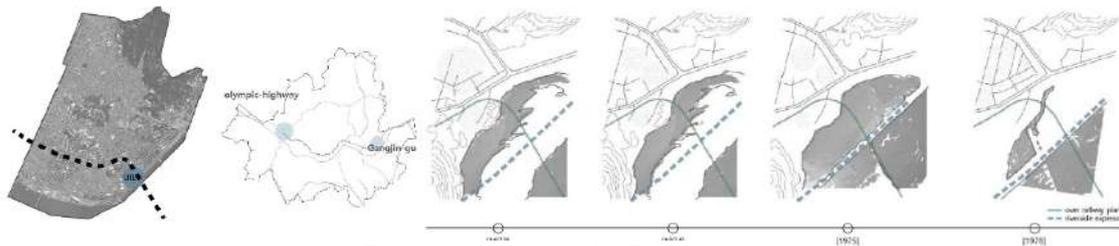


Figure 1. Gwangjin-Gu Diagram

The Gangbyeon subway station and the railway were built on the land reclaimed during the time when the riverside expressway was extended from the west borough to Gwangjin-gu. Since then, the elevated railway has not only divided the region East and West, but also and blocked visual and perceptual access to the Han River. Having reached about 30,000 users per day and at the same time, surrounded by the east-seoul Terminal and high density residential complex, the old station has a problem of space insufficiency to accommodate the increasing number of users as well as new programs demanded by the changes of surrounding context and users' nature.

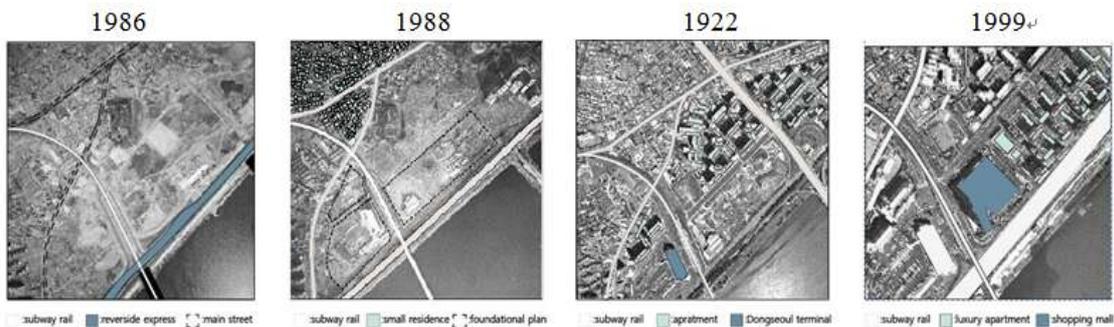


Figure 2. Site history

As the transportation infrastructure is built up in time order, the residential area is expanded and densified around it, and a facility corresponding to a new site context is needed.

2.2. Site Reading

2.2.1 Border Condition

With fragmentary contexts interspersed by the boundaries made by traffic roads and transportation infrastructure, the surroundings of the site, is not able to create any associated events or spatial correlations. The Gangbyeon metro station is located above

the elevated railway, In particular, nothing but a platform that parcels out the community in pieces.



Figure 3. Border Condition_Section _

2.2.2 Bus Terminal and Subway Station: A scale-free network

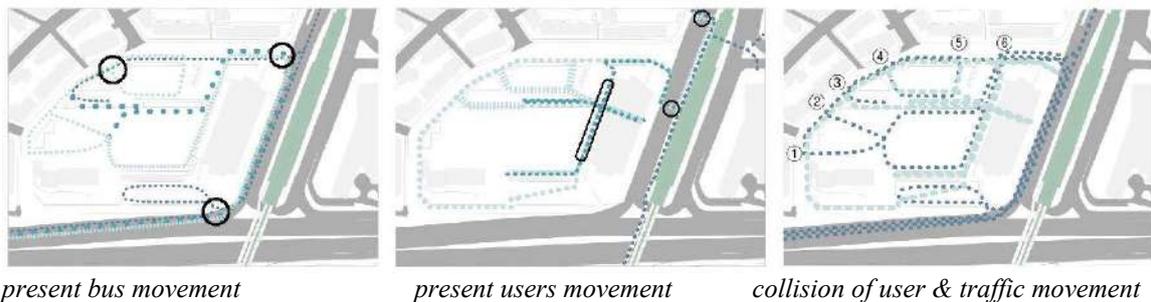
Both Gangbyeon Station and the east-seoul Terminal, as a center of local and overall country’s transportation network, play a role of a symbolic indicator for the site area. Haphazard traffic circulation system, however, makes the movements of vehicles and pedestrians collided with each other to create a heavy congestion.



Figure 4. Conestion_Hub

2.2.3 A conflict in Programs of Metro Statoin and Bus Terminal

A rough makeshift of city space distribution also has made the space arrangement of shops and offices in the station and terminal conflict and uncomfortable in function as well as the flow of movement. Considering that today’s railway platform or terminal space has become multi-functional in association with other programs, in particular, it is an integration of the programs, the circulation, and the surroundings that should be given priority to improve the present situation of the site.



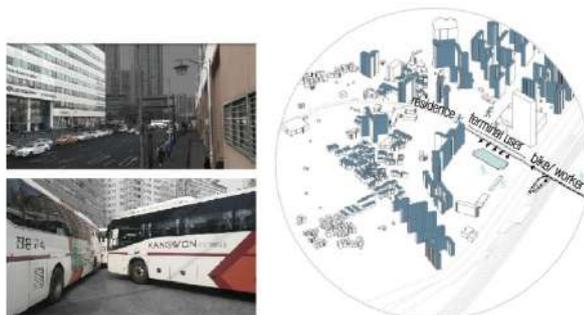


Figure 5. Conestion_collision

3. Process of Design Project

3.1 Design Concept

1) Verify the identity of Gui district as a riverside region by parceling out the programs and spaces, and by linking the high-density residential areas with the riverside parks on the axis of infrastructures including the Gangbyeon Station, East-seoul Terminal, and the Jamsil railway Bridge. 2) connect the platform of the Gangbyeon Station with Dongseoul Terminal to create a social ground for local community 3) propose a comprehensive traffic station as an integrated platform including riverside park, Jamsil Bridge, and Technomart, which, acting as social platform, provides Gu area with space for communication and sharing.

3.2 Design Strategy



Figure 6. Design Process

1) By extending the second floor of the subway depot to the east-seoul Terminal, a one-stop transfer service between bus and subway is to be provided. 2) By extending the elevated railway platform to link with the riverside park, a direct passage from the inner city to the Han River is provided, which is to act as infra_scape that introduces the waterfront to the city.

3) bring bicycle path from the bridge, and a linear platform extending to the riverfront walkway, into the integrated terminal space as a variant form of the riverside park, which turns a sports and cultural programs for local residents' communication.

3.3 Strategy of Programming

3.3.1 Section Programming

It makes one stop through the second floor to improve the accessibility The second floor, which is the connecting part of the two programs, serves as the main floor so that access to each floor is smooth. Buses stop on both the first and second floors to shorten people's lines. It does not create a congested space by clearly dividing sport programs and traffic programs vertically.

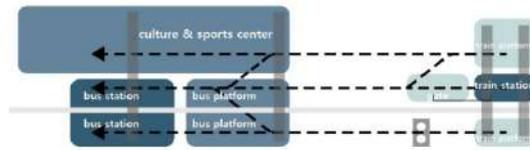


Figure 7. Section Diagram of Program

3.3.2 Plan Programming & Movement

The Bus and Dongseoul terminals were zoned to use the one - stop program without a staircase between the subway station - GATE - Dongseoul terminal ticket office - bus platform

Insert a road-shaped and river-side sports program that connects the running track into the building.

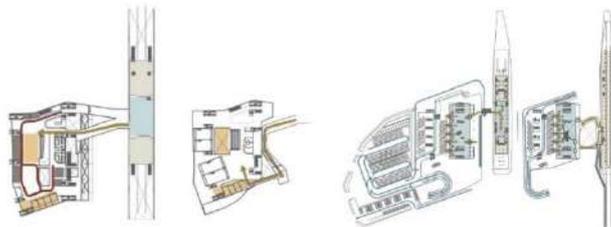


Figure 8. Plan Diagram of Terminal & Sports center

3.4 Case Study

[Table 1] Reference Organization & Contents

<p>Zurich Airport</p>			<p>It integrates airports, railways, bus, and serves as a suburban hub. each platform as a shopping center and convenient facilities.</p>
<p>Gangnam Terminal</p>			<p>The subway line 3 is connected to the department store, bus terminal. All is easy to access and convenient.</p>
<p>Giant campus, Shang hai</p>			<p>The structure of the part where the railway is inserted into the building was referred to.</p>

4. Design Result

4.1 Rebuild a Context on the Border of the Infra-Axis

The new transportation platform generated by an integration of the Gangbyeon metro station and the east-Seoul Terminal will serve as not only a cultural link but also a social platform for the existing context, with various programs, to accommodate the needs of the users and the community.

1) The linear structure of infrastructure and the nature of Hangang Park are extended inside the site 2) Construct the space as a repository that registers the historicity of the existing site, 3) Recovering the relationship with the peripheral contexts through the program

4.2 Site Plan & Plan



Figure 9. Plan 1,2,3,4

4.4 Section

A two-story platform connecting the two buildings and a subway railroad bridge are connected to the east-Seoul Terminal and the subway for convenient transportation. The running track inserted into the building is connected to the program from the third floor to the fourth floor.

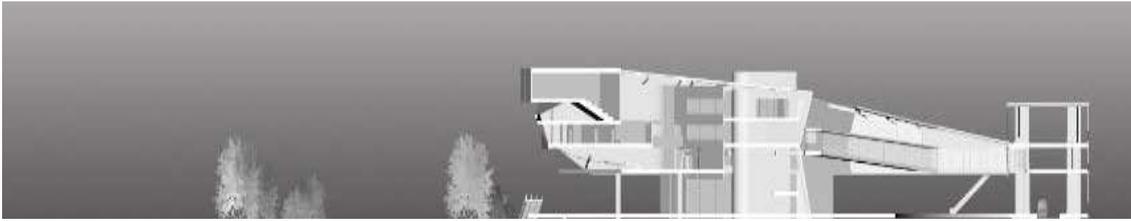


Figure 10. Section

4.5 Model & Rendering



5. Conclusion

The study presented a new type of infrastructure space, throughout the design experiment on the Gangbyeon metro station integrated platform, which is transformed by functional necessity. Throughout the study, it is known that the flow of movement extended from the subway station platform that connects the congested urban space with nature of the river, to the terminal not only promotes the communication of the local residents, but also alleviates the border conditions prevalent over the site, and that the site is, through lines of diverse movement, to be given a key to open a cultural association with existing context, or a potentials of being a social platform. In the second phase, the study attempts to give refined shape to the programs of the project, and to provide a cornerstone for forming a truly meaningful social platform in which residents, visitors, and the floating population can co-share.

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Им Чживон, Ку Ян Мин

jwhope0@gmail.com

УИ, г. Инчхон, Республика Корея

КОМПЛЕКСНАЯ ПЛАТФОРМА. ПРЕДЛОЖЕНИЕ ПО СОЗДАНИЮ ГОРОДСКОЙ ПЛАТФОРМЫ, ОБЪЕДИНЯЮЩЕЙ СТАНЦИЮ МЕТРО ГАНБЁН И АВТОБУСНЫЙ ТЕРМИНАЛ ВОСТОЧНОГО СЕУЛА

Абстракт. В данной статье рассматриваются разработки стратегий проектирования станции метро, которая, будучи рассматриваемой в качестве городского артефакта, принимает участие в городских программах, связанных с социально-культурными районами города, а также разработки стратегий учреждения устойчивой городской среды, которая соответствует соседствующему окружению благодаря перекодированию городского пространства. В качестве объекта была выбрана Сеульская станция Ганбён, и в частности эта работа стремится связать станцию метро с автобусным терминалом East Seoul (Восточный Сеул), восстановить связь с социально-культурной областью между рекой Хан и городским пространством и в конечном итоге получить станцию и терминал, которые были бы связаны с окружением в многослойном отношении, выступая в качестве контекстуальной городской платформы.

Ключевые слова: станция Ганбён, терминал Донсоль, контекстуальная городская платформа.