

Comparative Study on Urban Regeneration Strategy through the Utilization of the Old Railway Station Cases

- Focused on Stuttgart's Main station, Paris's Gare du Nord, London's
St.Pancras Station, and New York's Penn station -

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Abstract. Recently, through the historicity of old railway stations, constructed after more than the first century, a number of cities are frequently planning the restoration business with the railway station's modernization and urban regeneration of the nearby station influencing area. This study, focused on such aspect, discusses Stuttgart's Main station, Paris's Gare du Nord, London's St. Pancras Station, and New York's Penn station as examples, and simultaneously makes a comparative analysis of the restoration of their station building and the redevelopment process regarding the station influencing area and nearby area, in order to understand how each strategy is connected with urban regeneration. Through the result of this research, in each city, not only existing regional characteristics and present condition were fully used, but also, on the newly added function of having a high speed railway station, by reconstructing the historical image of the old railway station, maintaining the urban context and city's revitalization could be identified.

Keywords: Old Railway Station, Restoration, Urban Regeneration

1 Introduction

Public architecture not only has the internal public concern of carrying out an official administrative work, but also has the characteristic of creating a city's external public space within the urban structure. Among public architectures, railway station as a traffic facility functioned as an intermediating space between the railway and the city organization or an intersection of the city and the railway traffic in many Europe cities in the mid 20th century.¹ In nowadays, the railway station, still with its original





¹ Shin, Yekyeong, The 20th Century Transformation of Seoul Railway Station in the Context of Urban Space, 2010, Seoul National University. P.23

function as a station, transformed into a complex city facility, which includes amenities, commerce facility such shopping retail stores, and even residential functions. Especially in the 19th century, called as the industrial revolutionary period's cathedral for a long time, the railway station² functioned not only as a transportation means where the railway stops, but also as the region's landmark, it played a role symbolically as the gateway to the city.

Recently, attempts to vitalize the city by newly adding such multi functions in the old railway station are being made in each region. Furthermore, among the stations, the ones constructed after more than the first century, a number of cities around the world are applying the historical concerns and making plans for the restoration business with the railway station's modernization and urban regeneration of the nearby station influencing area. This study, concentrating in such aspect, discusses Stuttgart's Main station, Paris's Gare du Nord, London's St. Pancras Station, and New York's Penn station as examples, and simultaneously makes a comparative analysis of the restoration of their station building and the redevelopment process regarding the station influencing area and nearby area, so that the relationship between each strategy and urban regeneration could be understood.

2. Research Range

Table 1. Summary of Objects

	Main Station, Stuttgart	St. Pancras, London	Gare du Nord, Paris	Penn Station, New York
Year	-	2001-2009	1997-2001	1998- (3차에 계획)
View				
Redevelopment Direction	<ul style="list-style-type: none"> • Move to underground • Change and Integrity of diversity railway lines, • Construction of High speed railway • Partly destroying in original Station 	<ul style="list-style-type: none"> • Improvement of Hotel and Station Building • Modernization and Construction of New Station Building and Platform 	<ul style="list-style-type: none"> • Modernization of old Station Building and Construction New Station building next old Station 	<ul style="list-style-type: none"> • Expanding Penn Station's circulation and capacity with restoring an important historical resource in Midtown West
Line	<ul style="list-style-type: none"> *Routes *Long-distance connections *Regional connections *S-Bahn connections *Freight traffic *Stadtbahn 	<ul style="list-style-type: none"> *Domestic *Midland Main Line;Thameslink route;High Speed 1 and Kent Coast etc. *Olympic Javelin service *International *Eurostar 	<ul style="list-style-type: none"> *Paris-Lille railway *RER *Paris Metro *etc 	<ul style="list-style-type: none"> *Amtrak's Northeast Corridor and Empire Corridor, *Inter-City Rail *Commuter Rail (New Jersey Transit / LIRR)

The range of research, as mentioned previously, is the four stations which restored the old railway station and influenced the nearby area in the city by redevelopment. The four stations are Stuttgart's Main station, Paris's Gare du Nord, London's St. Pancras Station, and New York's Penn station, which are referred on Table1.

2 James N. Wood, Modern Trains and Splendid Stations, "Railway stations of the nineteenth century have long been called the cathedrals of the Industrial Revolution.", p.9

3 Comparison of the Old Railway Station Utilization Method

3.1 Keeping Heritage – the case of Main Station in Stuttgart

The present station was built between 1914 and 1928. With long history, now it is the largest regional and long-distance railway station and needs more and modernized space. So it was planned to convert the main line terminus into an underground with the Stuttgart 21 project. Initially, the plan was to not only pull down the side wings of the building, but also remove the platform and track, but such development activity was considered as damaging the heritage. Thus, at present, this station development project is ceased.

3.2 Refurbishing Heritage - the cases of St. Pancras in London and Gare du Nord in Paris

St. Pancras, found in the northern part of London in 1869 as Britain railway's southern terminus of its mainline, went through the crisis of demolition in 1966, and now is the new London terminus for international services and UK's one of the most important historic heritage. How the deteriorated St. Pancras became a new icon is through the Channel Tunnel Rail Link (CTRL)'s railway line planning and the government's will regarding the urban regeneration in the east London. Through several times of the plan's modification, it was redeveloped as the terminus. Eventually, throughout 2001 to 2007, the complex was renovated and expanded at the cost of £800 million, and the focus of development was the refurbishment of Train shed and extension of the existing St. Pancras Station.

Gare du Nord was inaugurated in 1946, expanded in the 1860s and became as the size of nowadays. However, due to the underground suburban station built at the Gare du Nord in the late 1970s, which provided a cramped, labyrinthine passenger area that was stressful for users and the station for trains to Northern France and to international destinations, another redevelopment for the scale extension was demanded. This redevelopment of the station focused on restructuring the station for the TGV station, launched in 1998, and the rehabilitation of the existing hall and creation of a new one caused by the existing passenger shed's expansion.

3.3 Searching Heritage – the case of Penn Station in New York

The original Pennsylvania Station was completed in 1910 and considered a masterpiece of the Beaux-Arts style and one of the architectural jewels of New York City. However, unfortunately, the original head house and train shed demolished in 1963 for the Pennsylvania Plaza complex including current Madison Square Garden. In recent days, because of the local railway system's capacity and the development of Manhattan's Far West Side, the redevelopment of Penn Station became inevitable. Due to such reason, under the leading role of SOM in the 1990s the redevelopment

project started, but until now, there has been only three times of design revision. However, there is a notable point to pay attention to. In the case of London and Paris, in order to accommodate the newly demanded function of the station, the development was carried on by improving and preserving the old station and adding the 21st century style of modern building. On the other hand, Penn Station chose the method of transferring the different existing function to the old station, which is an architectural heritage, from the Beaux-Arts James A. Farley Post Office into the name of Moynihan Station's twenty-first century train station.

4 Conclusion

As a result of observing the four cases implemented in Europe's major cities, the way of utilizing the old railway station regarding the urban regeneration can be divided by three ways. In other words, it can be summarized as Main Station in Stuttgart as the 'Keeping Heritage,' St. Pancras in London and Gare du Nord in Paris as the 'Refurbishing Heritage,' and lastly, Penn Station in New York as the 'Searching Heritage.' Especially, the railway station, the gateway of the city in the early period, as the city's landmark, is identified to have great influence by being the factor of adapting the historic image and revitalizing the declined center of the city.

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