STATION

Public Exodus Centers

Master of Advanced Studies in Architecture (MBArch)
The Contemporary Project, 2022

Author: Kaan Servi
Tutor: Xavier Llobet Ribeiro

Contents

Part 2

4 Orsay: Lateral Metamorphosis

Part 3

5 Haydarpasa: New Centrality

6 Conclusion

Abstract

Research focuses on the renovation of the abandoned or disused 19th-century railway stations to adapt them into the contemporary city as public exodus centers. The birth of railroad transportation became an evolution in transportation history, which was followed by the appearance of railway stations which evolved from simple cottages to cathedrals and palaces. Due to their "node" and "place" characters, station buildings became a convergence place of various social classes during history until the fall of railroad transportation in mid of 20th century and the abandonment of railway stations. On the contrary, stations, rather than being places keeping people away, have a very powerful potential to be hedonistic public spaces in contemporary cities through the five qualities that station buildings have. Thus, the research examines deeply three case studies that follow different strategies for the readaptation of abandoned 19th-century stations. Atocha Railway Station has been extended linearly behind the former station, and the historical building is used as a public space amidst the tropical garden. Railroads in Orsay Station have been moved laterally under the ground level, and the former station transformed into a museum which is a contemporary public space. The last case study, which is proposed by the author in Haydarpasa Railway Station, creates a new centrality by detaching the station terminal from the historical building. The former station is functioned as a cultural center, while the public space between the old and new station becomes a convergence place. Since railroad transportation is the strongest candidate to be the main actor of green and sustainable transportation in the near future, most 19th-century station buildings would gain importance to be the central point of dense transportation traffic. Thus, renovation of former stations as public exodus centers defines them as a meeting place for society and the city.

Keywords: Railway Station, Hedonistic Public Space, Renovation, Public Exodus Centers, Contemporary Public Space, Railroad Transportation, Readaptation, Istanbul, Turkey

Introduction

Research Background

Since the inauguration of railroad transportation in the 19th century, railway stations have always been an important part of the city. In the early period of railway transportation, station buildings acted as the transition zone, gateway between outer and inner of the city, between apart urban fabrics. Typologies of railway stations evolved from simple cottages to gigantic and powerful architecture as a result of the growing demand for railway transportation. Even in that period, short accommodation hotels had been integrated into station buildings for long-distance passengers. In the course of time, they turned into a public center where different social classes meet in the city, through the addition of diverse functions. It should not be ignored the screen façade, which is embellished with classical elements to conceal the superstructures, of the station complex. However, the glory periods of stations did not take a long time. The growing demand for cars and airplanes, due to comfortable and fast travel opportunities, left 19th railway stations abandoned since the beginning of the 20th century. The existence of the railway industry only took less than 100 years, and most station buildings have been doomed. Isolated ugly and dirty islands, that disturb the surrounding environment and threaten safety, emerged in the heart of the cities. During the last quarter of the 20th century, the arrival of high-speed trains gave hope to turn railway transportation, as a matter of course, station buildings back to their glory times. In different regions of the world, initiatives aimed to reuse 19th-century station buildings by readapting them into new railway networks and making them part of the city. Major railway stations have advanced into network hubs as a result of their foremost urban locations. Many development projects have been pursued during 20th and 21st centuries in order to readapt former station buildings and their surroundings to eliminate the negative consequences that industrial land caused. Projects such as the development of King's Cross and St. Pancras Railway Stations targeted to transform whole industrial land through additions of diverse functions such as offices, housing, and retail, yet these projects remained as urban design projects that historical station buildings became a small part of the project. The former stations have only been treated in terms of appearance, and "non-place" character still exists.

Although surrounding station areas attained positive consequences, the design of station buildings remains in the past. Railroads and terminals still are perceived as superstructures that do not have an identity. In the following sections, it is investigated the main issues that are skipped during the transformation and development projects of 19th-century railway stations.

Statement of Problem

Most 19th-century railway stations are not capable of meeting the frequent and dense railway traffic and long high-speed trains do not fit the old station buildings. Therefore, it became an inevitable necessity to make extensions and additional terminals to readapt the former stations. However, the main problem of abandoned 19th-century railway stations is not only the capacity or their insufficient volume to integrate the HS network. First of all, railroads and station areas are a separator, a wall in the heart of the urban structure. Railroads zipper urban structures into two apart parts, yet station lands strictly create a gap separating neighborhoods. The barrier impact of railway stations requires to be eliminated in order to promote social inclusion as in past.

Throughout history, the balance between the "node" and "place" character of stations has been changing. Development projects aimed to emphasize the "node" character of station areas through the integration of various transportation modes that facilitate to transfer from one mode to another. It is a reasonable action because more people would use the station building. However, the "place" character is forgotten and ignored. Through the integration of contemporary superstructures into the historical buildings, the "non-place" character is accentuated. The unbalanced situation between the "node" and "place" character emerges problem as station building experienced negative consequences in the past. Consolidative quality of station areas only could be revealed when barrier impact disappears, and "place" character is strengthened if the former station could gain a new identity embracing people. In this way, prejudices could be eliminated, and railway station becomes public spaces in contemporary cities.

As a general problem, railway station buildings have been losing their identity and these buildings become undistinguishable from any office building or shopping mall. Railway stations turned into places where recent technologies in engineering have been tested, so architecture does not even exist both for extension projects and new station buildings. Sugar-coated and flamboyant facades continue to exist in the contemporary world, with new materials. Thus, the identity of the former stations disappears in the course of time. In the contemporary world, engineering nowadays attains dominance over architecture, and duality is close to ending with the win of engineering. This would completely transform station buildings into only transportation services and "non-places", which makes them indifferent to any bus stop. Therefore, research will concentrate on the preserving "node" and "place" balance, maintaining the identity of buildings, and turning station areas into consolidative public spaces.

The Scope of Research

By considering the existing projects and developments in station areas, the thesis sets out to research the renovation of abandoned or disused 19th-century railway stations and their integration into contemporary cities as public exodus centers. It is inevitable fact that new contemporary extensions need to be added to historical stations to respond to increasing traffic and demands. Without detaching station areas from society, it is possible to engage industrial land and urban structure through physical interventions. It is also essential to preserve and reuse former stations in accordance with their original function. Due to their "node" and "place" characters, stations have exceptional qualities that conventional public spaces do not have. Railway stations always have a dynamic atmosphere, are used by diverse user profiles, and are accessible even from remote locations. These qualities make station buildings powerful hedonistic public space candidates, and the powerful architecture of 19th-century buildings is another prominent factor that would attract

society toward station regions. Therefore, the thesis aims to reverse all negative qualities of the 19th-century station buildings, opening them to a new door so that society would perceive them positively. Station buildings, as a matter of course station areas, would become contemporary public spaces of the future. Although research mainly focuses on the renovation of the 19th-century former stations, it would be unreasonable to separate the building from its surroundings. Therefore, research takes the urban context into account. In this way, the station building could be accessible, appropriated by citizens, and could be integrated into the city. The former station and new terminal structures are investigated from different perspectives such as accessibility, the connection between the old and new station, relationship with surroundings, and human experiences. Different scale impacts of development projects have been tested to achieve to transform station areas into hedonistic public spaces where the community will migrate to taste pleasure and satisfaction feelings. Ranging from regional to international impacts, it is examined possible positive consequences of the transformation of station areas into public exodus centers. Furthermore, the reuse of non-functional industrial buildings inside station land with different purposes is included in a small part of the research.

The research aims to respond to the following questions through concrete case studies and a theoretical framework.

Q1: How 19th-century railway stations could be readapted and integrated into contemporary city structure?

Q2: What is the hedonistic public space, and how public space could make people happy?

Q3: What are the principal reasons and factors leading stations into possible public exodus centers?

Q4: What are the impacts of the renovation of stations on the future of transportation and cities?

Methodology

In order to respond to the questions indicated in the scope of the research section, the thesis uses the "research by design", and "design by research" methods. The first method refers to the use of design and project as the main tool to produce the theory, while the second method uses the attained theoretical knowledge, through analyzed and investigated case studies, as a principal base for the design of the proposal. Both methods are used simultaneously in the thesis. Before starting the analysis of case studies, the evolution of railway stations has been evaluated in order to gain a deep understanding of the research, and then factors that could lead stations into hedonistic public space are outlined from a general perspective.

In the first method, two concrete station renovation projects are analyzed and investigated. For an accurate investigation, both projects have been redrawn by the author and theoretical knowledge has been compared with the outcomes produced through plan and section drawings. The problem has been defined through literature research from books, magazines, and newspapers, and outcomes have been consolidated with drawings by the author. To understand interventions and the consequences of the case studies, projects have been evaluated through different scales. Moreover, the theories in both projects are produced from an architectural perspective and the approach has been concretized through collage and illustration works. Comparative techniques before and after intervention through drawings and images enable the discovery of new architectural information

and data about the projects. Therefore, graphical information explains the main intentions in both case studies. Also, the position of the author in both projects has been accentuated through the script and visual data. In the second method, the project has been developed in the framework that gained knowledge from case studies and general investigations of railway stations. The proposal has been explained through drawings, images, and maps from different scales. Besides drawings, hand sketches are the main methods that emerge in the project. The theory has been emphasized and concretized through graphical illustrations.

The "research by design" and "design by research" methods have been used simultaneously throughout the thesis.

Aim & Importance of Study

The research aims to repurpose abandoned 19th-century railway stations and once again make them the center of the "node" and "place". Moreover, the thesis intends to break prejudices about station areas and reverse negative perceptions. Railroad stations are a significant part of the transportation system. Their central locations in the urban structure make them unique and exclusive, which means that station areas are part of daily life. Therefore, research concentrates on how station buildings and areas could be integrated into the urban structure and could be appropriated by citizens as public spaces. That "alien" lands become a part of daily life in contemporary cities creates a strong alternative for traditional public spaces. Due to node characteristics, station areas are easily accessible from remote locations, and they are capable of accommodating diverse user profiles. Renovation of historical station buildings will bring essential gains in terms of sustainability and this action would be exemplary for repurposing old buildings. There are several station areas in the urban fabric of major cities in Europe. By considering their strategic locations, each station area has an opportunity to be an exodus center of surrounding neighborhoods. Research accentuates the cues for repurposing the old for the future. Most major cities in Europe adopt different policies to comply with the Paris Agreement sustainability goals. Consequently, through incentives, railroad transportation has been gaining importance to be the faster and greener transportation mode in the future, which means the opening of a new door for the future of historical former stations.

Structure of Thesis

The thesis consists of mainly three parts which include in-depth research of three case studies in each part. In order to support the case studies and proposal, two chapters are complementary sections giving background information about stations and examining the railway stations from different perspectives and scales. Research is concluded with an explanation of the future of railroad transportation and station buildings, and the importance of the study is accentuated.

Chapter 1 provides necessary information about the reasons and factors leading to the birth of the architecture of railroad stations and examines how their role changed from mere gateway to public space. Also, typology modification of railway stations is investigated, which is related to public utilization of the buildings. Furthermore, the following sections evaluate the stations' "node" and "place" characters and the importance of balance between these two entities from the theoretical framework. The first initiatives related to the use of a station as a public space have been made in this chapter. 19th-century railway stations have been investigated as spatial layouts, and their relationship with urban surroundings is concretized through diagrams. In the final section of chapter

1, research explains the importance of spatial layout for the reuse of former stations as public spaces through concrete examples.

Chapter 2 examines the existing and possible qualities of the 19th-century railway stations to be hedonistic public spaces in contemporary cities. The thesis proposes five complements of railway stations that could lead them to public spaces where citizens would enjoy and satisfy to be there. The proposed components have been evaluated in the theoretical framework and through real examples and projects. The second section of chapter 2 is dedicated to the impact of the transformation of station areas into hedonistic public spaces on a metropolitan scale. To clarify the idea of "station as hedonistic public space", it has been made a comparison between the "Exodus" project, which aims to create of strip consisting of eight units including collective facilities and offering endless joy, by Rem Koolhaas, and research proposes what could be the impact if each unit is distributed to station areas in the city. The theoretical part of the proposal is illustrated in concrete conception.

Until part 1, all information provided is complementary data for the thesis that is deeply researched through three case studies. Part 1 is mainly consisted of the development project of the Atocha Railway Station and investigates each phase of the project from different perspectives and scales. Research starts with the definition of problems in the Atocha Station and then explains the urban scale recovery project of Madrid that starts with the development of Atocha and its surroundings. Interventions and their impacts are displayed through drawings and images in detail. The project is examined as a whole including the new terminals and existing stations to understand the impact of the station area on the urban scale. The architectural philosophy behind the project is physical, material, and historical continuity between the former station and the new HS train terminal. The philosophy of Moneo is described through meanings and connotations of new structures in terms of form and material. Before the explanation of phase 2, the former station has been investigated deeply and explained why its strong interaction, through function and garden, with the surrounding environment is significant for to be hedonistic public space. Phase 2 intervention is outlined as an action increasing the capacity of the complex and breaking the barrier impact of the station land. In the last section, by the author, it is examined if Atocha could be a hedonistic public space in contemporary Madrid. Finally, it is proposed possible actions to enhance the quality of Atocha and the position of the author is outlined.

Part 2 has a similar structure and approach to Part 1. This part follows the same structure as part 1 and Orsay Station is deeply researched. Since the Orsay Station project differs from Atocha in terms of intervention and scale, the case study mainly involves the transformation process and its results. Approach and philosophy are displayed through comparison plan drawings before and after the intervention. Through comparison drawings and collage works, the intention of the project is concretized. The following sections are dedicated to an explanation of the project in the framework of architectural philosophy. Collage works illustrate the strong connection between design actions and prominent qualities of the urban fabric of Paris. In the last section, Orsay is evaluated as a hedonistic public space after interventions and new museum functions. As it has been made in Atocha, it is proposed strong and weak sides of the project by emphasizing the position of the author.

After examination and evaluation of existing projects, the Haydarpasa Railway project is proposed as a renovation project of an abandoned station building that is aimed to be a public exodus center in Istanbul. Part 3 begins with the explanation of current problems on a neighborhood scale and

city scale through maps and images. The proposed action is defined as a solution to the problem of the railway station and its surrounding area. In the following section, the architectural philosophy of the project is described. Similar to Orsay, it is proposed that the culture venue is the contemporary public space of the future, and the renovation of the historical station as a culture center is explained. In the final section, research proposes the turning station area as a public exodus center through physical interventions and architectural actions, and studies the impact of the project in the city scale through interaction with other cultural venues.

The thesis ends up with a conclusion chapter that expresses the future of railroad transportation and station buildings. The tendency of European countries toward the railway transportation industry as a greener, sustainable and faster alternative to airplanes and cars, and policies encouraging the use of railroad transportation is correlated with the importance of railway stations. It has been discussed that stations gaining a new role in future cities would function more than transportation hubs for sustainability purposes of countries. It is examined how they would be new centers of the cities. The thesis ends up with a comparison of three case studies with apart approaches and philosophies that aim to transform station buildings and areas into public exodus centers.

1 Changing Roles of Railway Stations

1.1. From Gateway to Public Spaces

The history of railway stations dates back to mid of 19th century. The birth of steam railways in Britain was the most technological development in the transportation industry until that time. The initial purpose of railway transportation was to carry goods between remote distances. With the inauguration of the Liverpool-Manchester line for passenger transportation in 1830, the first railway station was opened in Crown Street, Liverpool. This early type of station was a simple two storeys building with a shed roof covering rail tracks. The early types of station buildings were constructed from wooden material and did not include any facility[1]. This structure was a simple building structure without breaking with tradition and thinking further problems[2]. Following railway stations were also constructed with similar methods and techniques. In this period, railway stations were located on the outskirts of the city since they were placed at the end of railroads. Therefore, people had to change transport mode to access the city center after reaching the railway station on the edge of the city. Richardson (1912) also explained that the station should not be considered the end of the transportation line, but as a magnificent structure from people distributed toward different city locations[3].

1.1.1. Station As a Gateway

Traditional gateways in the cities had been built to create a controlled arrival and departure point for people, vehicles, and goods throughout history. The initial purpose was to provide security for the walled city, and sometimes these city gates were used for trade purposes. Therefore, due to their localizations and functions, stations could be evaluated as a modern gateway, a transition zone between railway and city for the 19th century. Almost a decade after the inauguration of the first railway station in Liverpool, the growing popularity of railway transportation, especially in Britain,

1 Khaisri Paksukcharern Thammaruangsri, "Node and Place, A Study on the Spatial Process of Railway Terminus Area Redevelopment in Central London" (PhD diss., University College London 2003), 50.

2 Carroll L.V. Meeks, *The Railroad Station: An Architectural History* (New York: Dover Publications,INC, 1956),31.

3 Steven Parissien, *Station to Station* (Michigan: Phaidon Press, 1997),8

increased the importance of railway station buildings. However, the railway terminus, which was seen as a modern border of the cities, still existed on the edge of the city. Tait stated that it is demanded to build a city gate by railway companies and planners in the middle of the 19th century so that passengers would be aware of whether they arrived in the city[4].London Euston Station, which was built in 1838, was the first station that concretely demonstrates the definition of the gateway with its "Doric Arch". This Greek temple-style triumphal gate was designed by Phillip Hardwick and it marked the border of the city. Nonetheless, this enormous structure is designed as a representative gateway in front of the real Euston Station building and had no relationship with actual the railway station. Another example is Chemin de fer de la Belgique gateway stood alone in front of the actual station. These gateway symbolizations of stations were the first monumental structures of the railway architecture era[5]. Another gigantic gateway example was Curzon Street station in Birmingham. The entrance was conceived in grand Palladian style with tall columns, high arches, and large entrance gates.

The principal reason behind the construction of these ornamental and flamboyant gates was to "sugar-coat"[6] the railway industry. Jean Dethier alleged the use of traditional architectural styles for station designs as a concealing action against fundamental changes arising from the introduction of this modernity to towns[7]. Also, this transportation structure was relatively new and was speaking a different language at that time[8]. It was difficult for local people to accept the existence of these new structures since trains emitted smoke and made a high level of noise[9]. Furthermore, the adaptation of this new transportation system to existing city traffic was not easy. These reasons kept the stations far away from the city center and became the catalyst shaping architecture of railway stations. Immense entrance gateway designs of station buildings in classical architectural style later were evolved and used in order to emphasize entry points and to define station symbolically. Although unfavorable locations of railway stations, the railroad network was expanding throughout Europe. During the middle of the 19th century, railroad transportation began to gain importance in Europe since it was the fastest and the most comfortable transportation model for that time. As a result, the boom in the railway industry led to the construction of new railway stations. Moreover, existing railway stations gained new functions and spatial arrangements. London Euston Station became the first station with enclosed internal space involving various facilities such as retail and catering services[5]. Sheppard notes that Euston Station was also the first example of a railway station including separate waiting rooms for passengers[10]. Station began to be a "stop point" rather than to be only a "transition zone", which increased the time that passengers spent in the station building. As Tait pointed out the belief of railway companies to make stations stay place for trains was displayed with these new enormous structures and functions[4]. The function of station buildings had evolved in that period, displayed itself more clearly by following years.

4 Paul Kerley, "The Beautiful Stations of Rail's Golden Age" *BBC News Magazine*, September 24, 2015, https://www.bbc.com/news/magazine-34333684

5 Khaisri Paksukcharern Thammaruangsri, "Node and Place, A Study on the Spatial Process of Railway Terminus Area Redevelopment in Central London" (PhD diss., University College London 2003), 50-51.

6 In that period, companies had tried to conceal industrial parts of newly arrived iron structures by covering them with beautiful classical architectural facades. The term "sugar-coat" was used to demonstrate that purpose.

7 Steven Parissien, *Station to Station* (Michigan: Phaidon Press, 1997),24.

8 Letizia Musaio Somma, "Railway Transport and "City Gates" in the Development of the City: The Case of Matera" in *Putting Tradition into Practice: Heritage, Place and Design*, ed. Giuseppe Amoruso (Milan: Springer Cham, 2018), 1209.

9 John R. Kellett ,*The Impact of Railways on Victorian Cities*, (London: Routledge &Kegan Paul ,1969), 37.

10 Charles Sheppard, *Railway Stations - Masterpieces Of Architecture* (New York:Smithmark, 1996), 15.

Fig.1 | London Euston Station,"Doric Arch",1838
(The SMG Collection)

Fig.2 | Curzon Street Station,"Palladian Entrance",1838
(NRM,2015)

1.1.2. Stations: Towers,Cathedrals and Palaces of 19th Century

During the early times of the railway industry, stations are not integrated with city structure due to lack of facilities, surrounding settlements, and their remote location. However, this situation reversed after the 1850s with the advancement of the railway network and the establishment of new functions in the stations. Growing demand for railroad transportation and expansion of rail network in Europe and the USA led railway stations to new challenges. Due to high transportation traffic, the necessity of higher capacity of station building emerged. Hence, station structures had transformed from simple gateways into immense buildings. Ingenious designers adopted various kinds of architectural styles in order to make wider internal spaces. Although stations were located at the outskirts of the city in the 19th century, the magnificent structure of stations, as if they were a piece of landmark, signaled that stations would be the new center point of the city. The monumental appearance of the station and additional functions for passengers significantly emphasized that stations would be the heart of the city. Meeks demonstrated that railway stations are the only sample of transportation structures because these are the first enormous buildings constructed for only passenger utilization[11]. GK Chesterton declared that station buildings carried the most of identical features, such as vast arches, colored lights, and void spaces, of 13th-century cathedrals[12]. Also, Maillard stated, gates transformed into palaces while Cendrars defined railways stations as modern palaces[13,12].

This scale change in station buildings brought in new service opportunities during the 19th century. In 1849, the inauguration of the great hall, which is a waiting room for passengers, in Euston Station triggered the transformation process of stations from gate to the palace. In the following years, designers adopted many architectural styles for the construction of new railway stations. In that period station buildings were evaluated as a place for practical innovations by engineers and architects. Therefore, station designs are differentiated from each depending on region and country. However, there was a common approach that railway station designs continued to be inspired by Renaissance palaces[14]. Gare du Nord in Paris was designed with (Beaux-Arts) neoclassical style and construction completed between 1861 and 1865. It could be seen that the facade of the main entrance includes a lot of classical architectural elements such as pillars, triangle pediments, and vast arches with ornamental details. On the other hand, St Louis Station was built also with Romanesque revival style between 1892 and 1894. Hall of St Louis Union Station much more resembles the part of a principal building such as a palace or Roman Basilica. Another prominent example is Bristol Temple Meads Station which was designed in Tudor architectural style and opened in 1840. Its design was inspired by Gothic churches in the medieval city of Bristol. Even plan was a reinterpretation of ecclesiastical plan typology including central nave and sided aisles. The enormous structure of station buildings reflects the effect of principal buildings.Also this horizontal structures were aimed to be emphasized as structure and location with vertical element that is clock tower.Besides their flamboyant facade and internal space designs of railway stations, new facilities began to exist at the end of the 19th century.Concourse spaces in this period included booking facilities, waiting rooms, and restaurants[15]. The role of the station had begun to change

11 Carroll L.V. Meeks, *The Railroad Station: An Architectural History* (New York: Dover Publications,INC, 1956),27.

12 Steven Parissien, *Station to Station* (Michigan: Phaidon Press, 1997),7.

13 Michel Maillard, "Reinventing the Railway Station," *Japan Railway&Transport Review*, no.6: 14–15

14 Steven Parissien, *Station to Station* (Michigan: Phaidon Press, 1997),28.

15 Harold Pollins, "Transport Lines and Social Divisions. In The Centre for Urban Studies," in *London Aspect of Change*, (London: Macgibbon & Kee, 1964), 28.

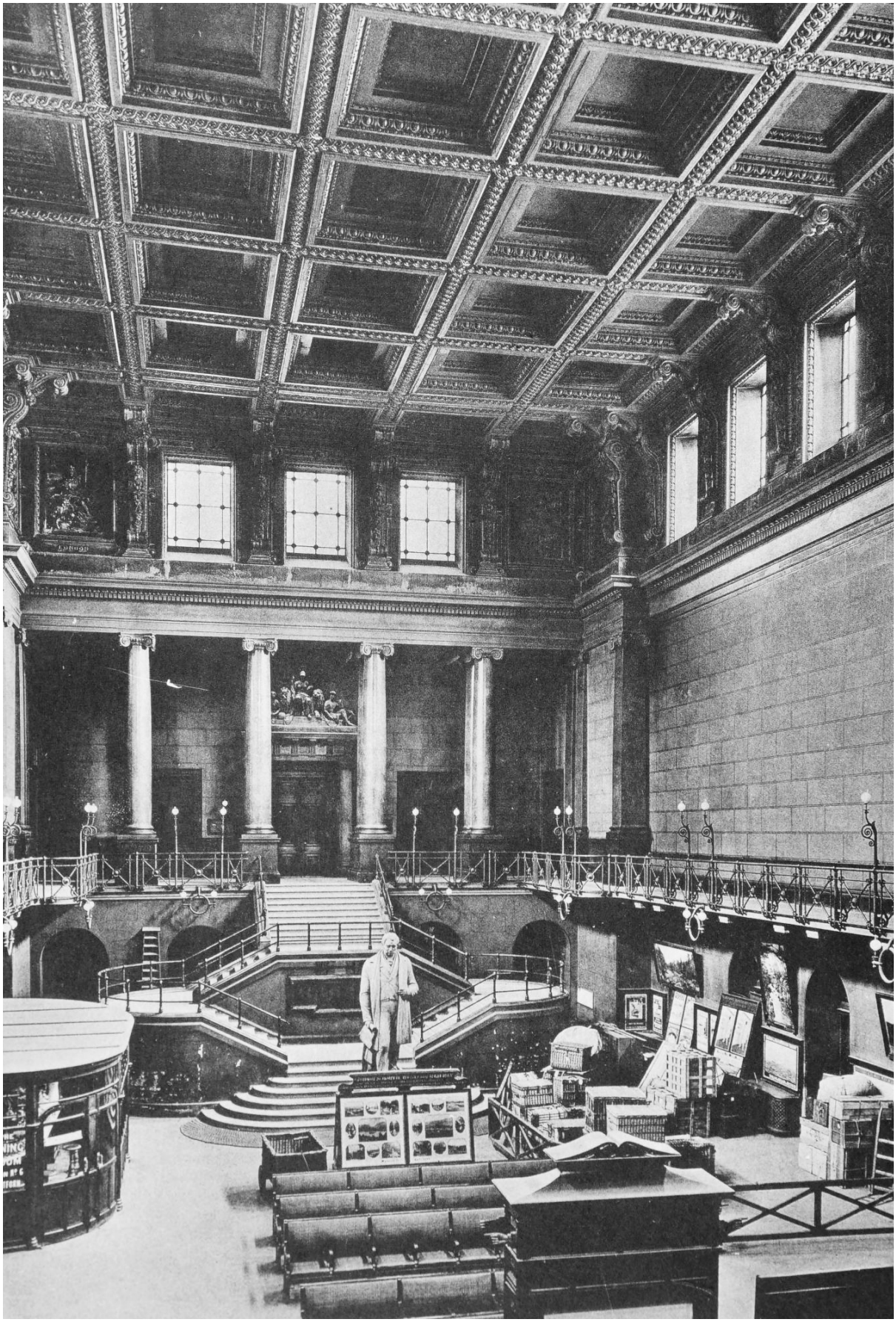


Fig.3 | Euston Station Grand Hall
(Meeks,1956)

Fig.4 | St Louis Union Station "Roman Basilica"
(Photo by Library of Congress,1921)

Fig.5 | Social Interaction in Railway Station,Illustration
(Illustrated by W.P.Frith,1862)

from a mere gateway to the social convergence point of travelers and city-dwellers.The dynamic atmosphere of the railway stations at the end of the 19th century could be seen in the illustration of a painting by W.Powell Frith.The arrival of hotel buildings adjacent to stations brought dynamism to the station buildings.

First hotel buildings in London were built by Railway Companies in order to accommodate long-distance passengers overnight. In the following years, these hotel buildings became a place where short-distance passengers and even non-transport citizens visited and stayed.Changing the role of the station from transportation-centric to human-centric bolstered up station buildings to be part of social life.That existence of willingness to construct terminal to the city center by 1910s is the clearest demonstration of the change.

Characteristics of the railway stations had started to transform from mere gateways to a place where different social groups interacted. Simultaneously, stations' "node" and "place" characteristics have changed.

1.2. Stations as "Nodes" & "Places"

Since their inauguration, railway stations have maintained the characteristics of "nodes of networks" and "places in the city"[16]. The relationship between the two has altered throughout the period by depending on the integration of the station with other transportation modes and its relationship with the urban structure. Stations, in their preceding years, were detached from the city, and they acted as gateway structures on the border. They did not have integration with other transportation modes except local horse-drawn facilities[17]. However, their grand and ornamental architecture made them places that are alive. The construction of hotel buildings for short-stay accommodation and including passenger rooms within the station, and the creation of squares in front of buildings demonstrated the "place" characteristics of the stations. Later, the beginning of the urbanization process around station regions accompanied the "node" characteristics, and railroad transportation was interconnected with other transportation modes. The balance between two characteristics that are "nodes in networks" and "places in the city", has varied over the period. Especially, during the first quarter of the 20th-century "node" characteristics surpassed the "place" quality of the stations due to the high density of transportation traffic and erection of a series of industrial structures. The dominance of "node" characteristics over "place" quality, as a matter of course, pulls down the liveability and attractiveness of the station regions, but also the surrounding area. Bertolini also claims that the optimized connectivity of the station with all transportation modes may have a detrimental impact on the liveability quality of the area[18]. In the middle of the 20th century, the turn of station regions into an industrial zone with scattered warehouses and the isolation of these regions from the city became clear proof of the negative impact of duality between "node" and "place" qualities of the station. Most of the railway stations such as King's Cross, St Pancras, Gare d'Orsay, and Atocha in Europe suffered from this issue. Railway stations became transition zone and transfer machines[19] among transportation networks.

16 Bertolini in his book "*Cities on Rails"* describes the station as a node: a point of access to trains and other transportation networks. It is a place: a specific section of the city with a concentration of infrastructure but also with a diversified collection of buildings and open spaces.

17 Khaisri Paksukcharern Thammaruangsri, "Node and Place, A Study on the Spatial Process of Railway Terminus Area Redevelopment in Central London" (PhD diss., University College London 2003), 59.

18 Luca Bertolini,Tejo Spit, *Cities on Rails* (London: E & FN Spon, 1998),9.

19 Ana Luísa Martins da Conceição, *From city's Station to Station City: An integrative spatial approach to the (re)development of station areas* (Delft:TU Delft,2014), 35

Within the last 20 years of the 20th century, the balance between "node" and "place" has started to be reestablished through the integration of public facilities into the station region and the diversity of transportation networks and scales. As Bertolini stated, mono-network modes are inadequate, and various transportation modes need to be represented even if one of them becomes dominant[20]. Thus railway stations require to include the varied scale of transportation scales such as local, regional, and international. Successful development projects in station regions managed to integrate high-speed trains, local intracity trains, and a metro network besides buses. For instance, the King's Cross redevelopment project enhanced "node" characteristics of the railway station by integrating different scales of transportation networks such as "Channel Tunnel Rail Link" as an international connection, "High-Speed Train" as an intercity connection, and regional trains for the intracity connection[21]. On the other hand, Atocha station as a "node in transportation networks" includes "High Speed " train services for both international and intercity connections whereas local trains and metro provide intracity connection. The involvement of diverse transportation scales promotes a high level of accessibility in station regions. However, it is essential to provide a balance between "node" and "place" in order to avoid the dominance of one entity over the other, which creates a negative situation, which has been proved in the middle of the 20th century through the collapse of railway industry as a result of the imbalance between node and place. The diagrammatic graph of Bertolini clearly illustrates the importance of the "node" and "place" balance.

"In the diagram, the y value corresponds to the node-content of an area, or to the accessibility of the node, and thus to its potential for physical human interaction (following the reasoning: the more people can get there, the more interaction is possible). The x value
corresponds to the place-content of an area, or to the
intensity and diversity of activities there, and thus to the degree of actual realisation of the potential for physical human interaction (according to the idea: the more activities are there, the more interaction is actually happening)" [22]

From the explanation of Bertolini and the node-place model, it could be seen that stations are not only accessible in terms of transportation but also, they should be accessible in terms of place of activities. The middle part of the diagram is the optimum area as an efficient transportation node and place for activities.Rehabilitation of the station region with residential and commercial buildings facilitates the engagement of the station and the city. As a result, the station becomes a place where people would enjoy spending time. In both Atocha and King's Cross development projects, it could be recognized that the station integrates into the city through the appearance of urban structures while inside of the station was left for collective facilities that aim to attract people toward this location. Instead of being opposite entities that affect other characteristics negatively, "node" and "place" became catalysts of each other. In this way, a habitable environment could be created that will encourage social inclusion in the city.

When transportation is diversified, accessibility to station regions increases, which promotes the development of the surrounding environment of the station.

20 Luca Bertolini,Tejo Spit, *Cities on Rails* (London: E & FN Spon, 1998),17.

21 Luca Bertolini,Tejo Spit, *Cities on Rails* (London: E & FN Spon, 1998),182.

22 Luca Bertolini, "Spatial Development Patterns and Public Transport: The Application of an Analytical Model in the Netherlands," *Planning Practice & Research* vol 14, no. 2 (1999): 201.

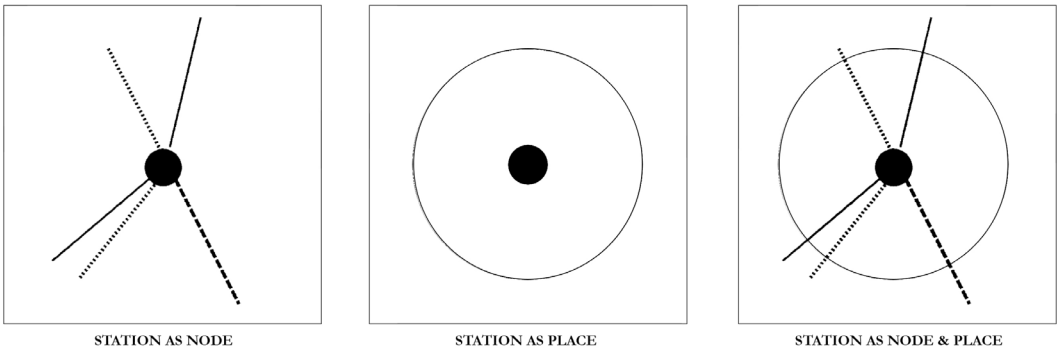


Fig.6 | Node-Place Model
(Bertolini,1999)

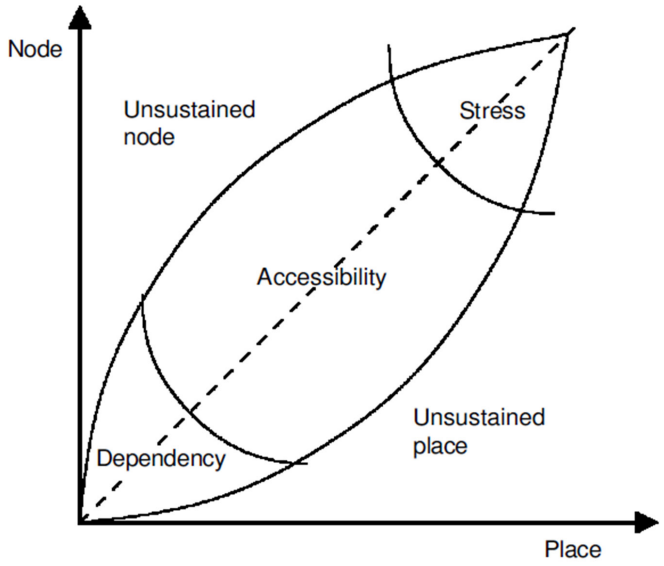


Fig.7 | Node & Place Diagram
(Bertolini,1998)

1.2.1. Making "Place" in Station

Although most stations have diversity in terms of transportation modes ranging from buses to high-speed trains and local metros, becoming a place for activities is still an issue even if they include collective facilities that could attract people. Bertolini defines the parameters that characterize a place with four approaches that are walkable radius, functional-historical elements, topographic, and a development perimeter[23]. It is important to evaluate that these four approaches are related to the surrounding connectivity of the station. Another common point of these approaches is the nonflexible limitation quality of the railroad terminal area. Hence, the integration of the station into the urban structure is essential as the creation of collective facilities inside the station. Waterloo and Paddington railway stations are one of the busiest nodes in the transportation network in

23 Luca Bertolini,Tejo Spit, *Cities on Rails* (London: E & FN Spon, 1998),12.

London. They include diverse transportation modes, and the interiors of stations are filled with various functional facilities. However, these stations do not attract non-passengers as it was expected. Only users are travelers and staff working in the stations. Therefore, it could not achieve being a place since it is not appropriated by daily non-passenger citizens. The main reason behind this problem is the level differences between transportation and facility concourses[24]. Appropriation of place by users is the most essential parameter to make it a proper space[25]. A similar problem appears in Atocha station in Madrid. Due to topographic differences between surrounding streets and the station entrance, the dialogue could not be established properly until the last developments in the station region, which keeps the non-passenger users out of the station.

Another obstacle to the utilization of the station as a place is the urban connection. Even though the station meets all required criteria that are necessary for the efficient use of the station as a node and place, if the surrounding urban structure is in an inferior condition, the station again could not be used as a node and place at optimum level. Euston Station in London, as one of the first railway stations in the world, includes a variety of functions in the station and public space in front of the station building. Moreover, it involves different modes of transportation as a node. However, the surrounding of the station is in good condition, therefore station could not integrate into the urban structure as a place. A similar situation exists in Grand Central Station in New York. These problems clearly coincide with the space definition of Marc Auge. According to his statement, one of the parameters making the "place" is the surrounding relations[26]. Consequently, most of the redevelopment projects in station regions include rehabilitation of the surrounding urban structure besides renovation of the actual station.

In most major cities, people live in one place, work in another, and spend their free time in a third location. Therefore, they constantly use transportation nodes in order to move in the city, which requires to increase in the capacity of these "nodes" in order to meet the demands of passengers. Growth in the frequency of transportation traffic in railway stations, as a matter of course, increases the pedestrian traffic inside of station since more people use stations as "nodes". The intensity in use and diversity in user profiles create a very significant potential in order to translate intensity and diversity into human interaction in railway stations[27]. Hence physical environment and open public spaces are the vital elements that encourage social interaction and inclusion in public. Rather than making leaving the stations as non-places, station areas require to be places that will support and encourage non-transport activities.

Marc Auge explains "If a place can be defined as relational, historical and concerned with identity, then a space that cannot be defined as relational, or historical, or concerned with identity will be a non-place."[28]

Nowadays, most railway stations still remain as a non-place rather than becoming a place although they have a big potential in terms of history, identity, and relations. In contemporary cities, railway stations could easily replace conventional public spaces.

24 Khaisri Paksukcharern Thammaruangsri, "Node and Place, A Study on the Spatial Process of Railway Terminus Area Redevelopment in Central London" (PhD diss., University College London 2003), 61.

25 Henri Lefebvre, *De lo rural a lo urbano* (Barcelona: Peninsula, 1978),165.

26 Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity* (London: Verso Books, 1995),52..

27 Luca Bertolini, "Spatial Development Patterns and Public Transport: The Application of an Analytical Model in the Netherlands," *Planning Practice & Research* vol 14, no. 2 (1999): 200-201.

28 Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity* (London: Verso Books, 1995),77-78

1.2.2. Station as Public Space in Contemporary City

As stated in the previous paragraph, railway stations have the vital potential for being new public spaces in contemporary cities. Railroad transportation has been growing since the arrival of high-speed trains in historical stations. Spreading railway networks in cities and countries enable people to move from one place to another place in a shorter time than traveling via airlines. Moreover, comfortable travel with trains makes them a prominent travel mode compared to airlines and voyages. Due to their central location, they situate in the heart of the urban structure, so everyone could easily access stations by using local transportation modes such as buses and metro. These principal "nodes" of the cities accommodate divergent people and station buildings are always in intense utilization, thus they meet all required necessities of conventional public spaces in terms of "diversity" and "intensity". They have a dynamic structure as in public spaces and have the potential to be appropriated by users as a public space. Bertolini states that the diverse populations that characterize the modern metropolis are all represented in the compressed space of public transportation hubs including city users, commuters, and residents[29]. Thus, stations could be called microcities that are small-scale actual cities. With their unique characteristics as microcities, railway stations have very strong potential to be "public places" beyond being nonfunctional spaces. Hence, it is certainly possible each people could use the station as a public space and enjoy it.

Nowadays mainly railway stations behave as gigantic barriers crossing the whole city. Station regions that are mainly located in the middle of urban structures divide neighborhoods through very strict borders that are impossible to penetrate or break the barrier. This barrier effect separates neighborhoods from each other and creates isolated islands within the city. Therefore, revealing the "public place" characteristics of the station is essential on an urban scale. In this way station regions act as linkages rather than separators and barriers by promoting social interaction among people. To reverse the function of the station from separator to linkage, it is required to attract people through the physical environment. One of the aspects that influence activities to differing degrees and in a variety of ways is the physical environment. Jan Gehl states that the optimal physical condition of the public place invites more people to involve in optional activities since the place enables them to spend more time[30]. To illustrate, the Atocha station region is located between two neighborhoods in the heart of Madrid. Until the redevelopment project of the station area, this region was an isolated land filled with industrial structures in the heart of the city and it was separating two neighborhoods with fences and walls with low permeability. Nowadays, the station region is integrated into the city through the introduction of new collective facilities and a new physical environment that enable the users to spend their time inside the station. Therefore repurposing the "place" characteristics of the station more precisely by introducing collective and diverse activities will accommodate more people and will be visited more than any public space due to their existing passenger capacity and easy accessibility.

In addition to meeting requirements in order to be a place through surrounding relations, history, and identity, places in railway stations have to be of good quality in order to be an attractive public place for optional activities. While poor quality space only enables people to do necessary activities, good quality space emerges diverse possibilities such as social and optional activities.Since functionally diverse locations are typically frequented throughout the day, a mix of functions is critical

29 Luca Bertolini, "Spatial Development Patterns and Public Transport: The Application of an Analytical Model in the Netherlands," *Planning Practice & Research* vol 14, no. 2 (1999): 200

30 Jan Gehl, *Life Between Buildings:Using Public Space* (Washington: Island Press, 2011),9.

in establishing a pleasant and socially safe environment[31]. In order to provide good quality in a public place, the spatial layout of the station is vital since the optimum spatial design of the station could facilitate social interaction and a good quality experience. To achieve that, optimum integration of "node" and "place" characteristics of the station is an inevitable necessity. The good quality spatial layout of the station should create a stable place within the dynamic structure of the station. In this way, people could experience the place efficiently. Facilitating the pedestrian traffic flow inside the station is the other most important process encompassing "node" and "place". For example, the successful common point of the Atocha and Orsay projects is that both facilitated the pedestrian traffic flow in order to provide a good quality space experience to users. Therefore, railway stations are very strong candidates to be public spaces in contemporary cities.

1.3. Spatial Layout of Railway Stations

Railway stations, during their early period, had a simple plan layout with a passenger canopy and train shed. One of the most known structures with simple architecture typology in early period stations was Liverpool Crown Street station. Most of the major railway stations that are used in the contemporary world were constructed during the end of the 19th century. The preceding plan typologies of historical stations are adapted to the current requirements of the transportation system through the expansion of stations and the creation of new stations. Thus, it is inevitable necessity to understand the plan typologies of old railway terminals in order to explore the function of station buildings and transform them into "public places" in the contemporary world. That exploration also is essential to recognize pedestrian flow schemes while creating good quality collective public space.

The initial definition of the railway station's plan typology has been made by César Daly in 1846. He reduced the layout of railway stations into four station types in order to avoid chaos in station types. His classification was made according to arrivals and departures:(1) head type, arrival, and departure in the same building that situates at the end of the tracks; (2) twin type: consisting of opposing passenger canopies, that are located on both sides of tracks, for arrival and departure;(3) L type: arrival terminal at the end of tracks while departure terminal is on the side of tracks; (4) one-sided type: arrival and departure terminal on the one side of the tracks[32]. As shown in the plans, each typology follows a different pedestrian flow scheme and each typology has a different relationship with urban structure. The Head type plan scheme is the simplest typology among the others and it is still used today. A one-sided terminal was designed to eliminate the necessity for passengers to cross the tracks. This plan typology was convenient for passengers due to the prevention of flyover or overpass bridges and the short walking distance between trains and waiting rooms. However, this plan typology had difficulties adapting to increasing railway traffic and longer train wagons. Furthermore, the one-sided station typology creates a very sharp barrier between both sides of the rail tracks. On the other hand, two-sided plans were an excellent solution in order to keep apart arrival and departure terminals, which also aimed to avoid congestion in pedestrian traffic. Nonetheless, since arrival trains did not hold up departure passengers, people had to wait longer times or it was needed overpass bridge to access trains on the opposite side. U shape as a variation of two-sided station typology is a combination of head-type and twin type plan. It uses the same entrance for passengers, but at the same time, arrival and departure passengers have dif-

31 Andy van den Dobbelsteen, Sebastiaan de Wilde "Space use optimisation and sustainability-environmental assessment of space use concepts," *Journal of Environmental Management*. 73 (2004): 82

32 Carroll L.V. Meeks, *The Railroad Station: An Architectural History* (New York: Dover Publications,INC, 1956),30

ferent waiting rooms, which facilitates pedestrian traffic inside the station and avoids the crowd. For example, Atocha station was a typical example of a U-shape plan typology, whereas Orsay could be evaluated as a two-sided plan with central overpasses.

Compared to César Daly's descriptions of station plan typology, in modern cities, three types, which are headed, one-side, and two-sided), of the stations plan become prominent due to their behavior on a human and urban scale. Each typology has its own advantages and disadvantages to being a good quality public space. Thus their spatial development is the main base for the adaptation of railway stations as public places. It will be evaluated the most common three plan typology of the stations and will be examined their different behaviors on an urban scale and human scale. Railway stations with head plan typology avoid passengers to cross the railway tracks through bridges and travelers could easily access the trains. The central building of head type has very good potential to host non-transport activities since it is directly correlated with the urban structure and behaves as a transition zone between the city and trains. Also, the spectacular façade of the main entrance directly emphasizes the entrance, so people easily enter the station without any confusion. The mere drawback could be the same entrance use for arrival and passenger use, which could create congestion during peak hours. However, separation of arrival and departure entrance could solve this problem. In terms of urban impact, these types of stations do not cut the urban fabric into two distinct isolated lands compared to the two-sided plan typology. Therefore, it is easier to integrate these stations into the city as "public places". There is a possibility that in front of station buildings with head plan typology could be transformed into open public spaces. In this way, passengers directly correlated with this open space. Head type and U-shape type station spatial layouts resemble each other.

The confrontation of these two types with the city became somehow similar[33].

On the other hand, one-sided stations are efficient in terms of operation process. Most of them nowadays have a connection with other train platforms through tunnels or bridges. Therefore, people have to cross the rail tracks, which is not a convenient situation in terms of accessibility. Also waiting rooms and trains are not close to each other since the main terminal is located on the one side of rail tracks. The unbalanced condition between two sides of the station area avoids direct accessibility. Moreover, a one-sided plan typology could create a strict land division between opposing sides of the rail tracks. Since rail tracks go along the station building, they separate surrounding neighborhoods with walls and fences. Therefore, this strip becomes an isolated and separator zone in the middle of the city. Localization of station buildings on only one side of the railway tracks creates a handicap for the users living or working on the opposite side. Although the creation of bridges and underground tunnels aims to break this barrier effect, it could not be successful completely since visual delimitations continue. One side of the station region remains isolated while the entrance part of the station building becomes alive. Therefore, as a potential public place, the one-sided plan typology has more drawbacks than the other two types.

The last spatial layout is the two-sided station. In modern cities, most two-sided stations transformed into U-shape variations with central entrances.Two arms of the station building are left for arrival and departure passengers while the central part could be used as a commonplace and main entrance for both passenger types. U-shape station typology is a very similar spatial layout to head-type stations. Traditional two-sided stations divide urban fabric into two isolated pieces.

33 Ana Luísa Martins da Conceição, *From city's Station to Station City: An integrative spatial approach to the (re)development of station areas* (Delft:TU Delft,2014), 53

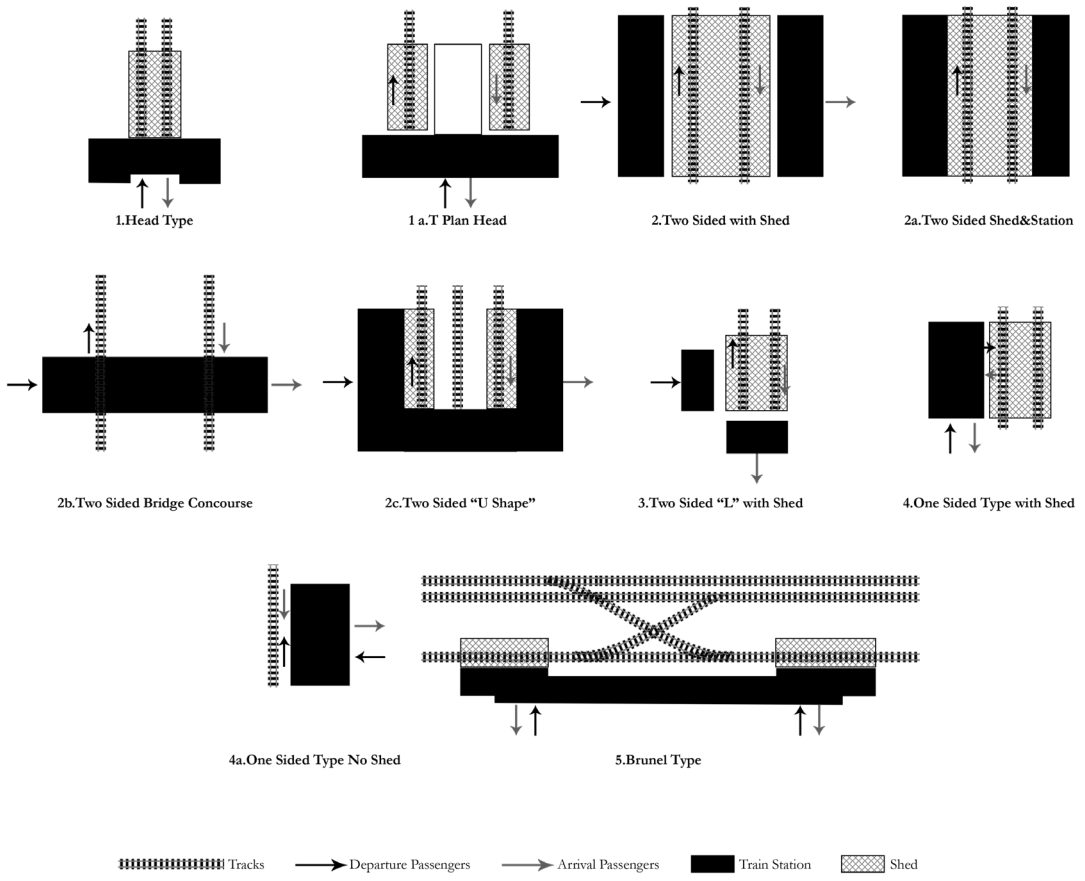


Fig.8 | Plan Typology of Railway Stations,César Daly
(Redrawn by Servi,2022)

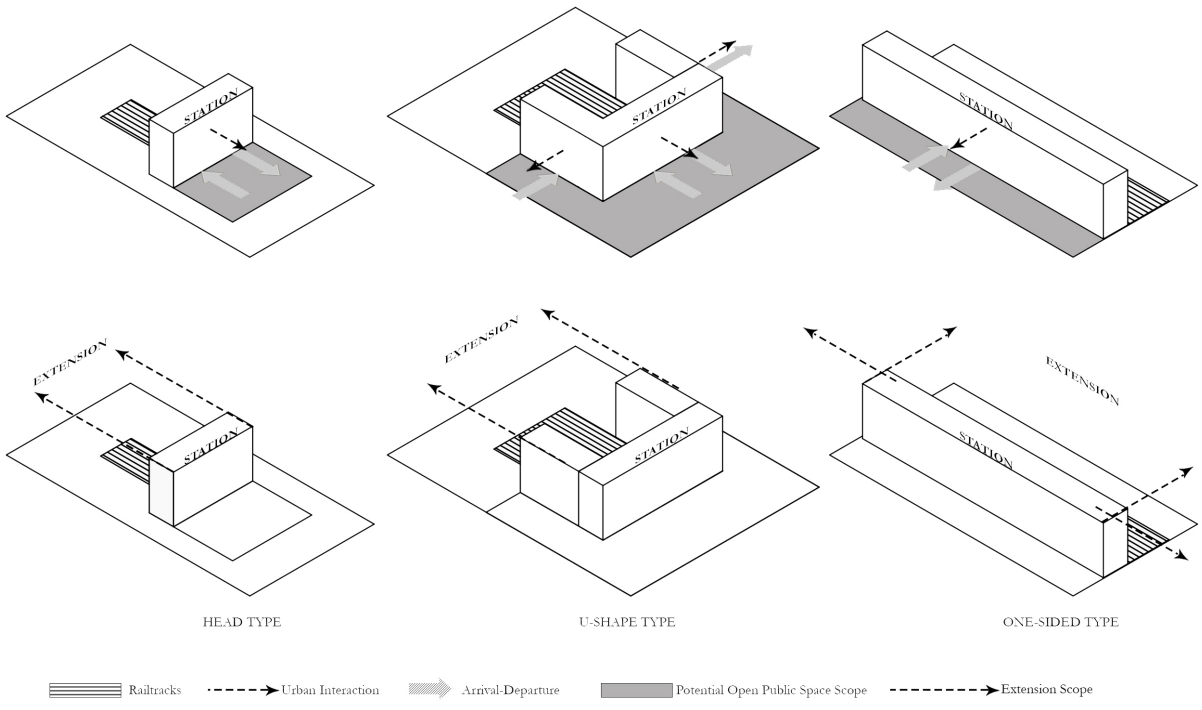


Fig.9 | Spatial Layout of Stations and Their Behaviours Diagram
(Drawn by Servi,2022)

Arrival and departure passengers had apart terminals and entrances, so separation of terminals does not allow human interaction, which does not fit with the necessities of public space. Also, the division of urban fabric is too sharp. However, twin station typology and head type station typology had been combined. U-shape is a combination of these two types and include advantages of both station typology. The separation of arrival and departure passenger terminals facilitates the pedestrian flow inside the station, which is essential to prevent congestion inside the building. On the other hand, the central area between the two arms of the station building mainly includes social facilities where people spend their time waiting for trains. However, the most prominent problem of this typology is related to urban structure. Both-sided enclosed spaces create a very strict barrier between surroundings, and the station region becomes an isolated area kept apart from the physical environment. U-shape station typology is proper mainly for the last stops of the trains. Atocha and Haydarpasa railway stations were typical examples of U-shape typology. Atocha station in Madrid is not the last stop station and has the possibility to extend toward the center since it locates in the heart of the urban fabric. However, Haydarpasa railway station is the actual last stop since this station is located on the coast of the sea. of the station building mainly includes social facilities where people spend their time waiting for trains. However, the most prominent problem of this typology is related to urban structure. Both-sided enclosed spaces create a very strict barrier between surroundings, and the station region becomes an isolated area kept apart from the physical environment. Atocha and Haydarpasa railway stations were typical examples of U-shape typology. Even though Atocha has started to break the barrier impact of the station region by crossing the land through bridges and tunnels, still barrier impact of the area continues. On the other hand, the Haydarpasa railway station still divides two neighborhoods in Istanbul with sharp borders. As shown in the diagram, the spatial layout of the station buildings has a direct impact on urban connectivity and the potential for the creation of open public space scope. For the management of passenger traffic, three typologies behave in apart ways. Head-type station building has more scope in terms of connectivity with the urban structure and potential public space.

The arrival of HST services became a signal to reinstate the lost value of station buildings. Nonetheless, old stations were not capable of meeting high levels of railway and passenger traffic. Therefore, these stations either were replaced by new terminals, both above the ground and underground or extended with complex systems. The possible extension of former stations is correlated with the surrounding urban structure and spatial design of the stations. Stations with head-type and U-shaped plans have similar qualities in terms of possible extension. For example, St.Pancras and Atocha stations have a U-shaped plan typology, and three directions of both stations are urbanized. Therefore, only the rear of the station building is available for the extension of the new terminal because the other three directions of the station are already filled. Gare de l'Est as a head-type station building has a similar situation. On the other hand, King's Cross station with a one-sided plan typology is extended along the railway tracks and was added new entrance terminal in front of the original entrance that is located on the side of the station building.

1.3.1. Importance of Spatial Layout for Reuse of Stations as Public Place

The spatial layout of 19th-century station buildings had been designed according to short train wagons and their infrequent traffic. However, preceding stations could not adapt to developments in the railway industry due to their simple typology and low capacity. Railway traffic increased and the sizes of train wagons became larger, which impacted the future of historical stations negatively. Most historical stations could not bear against these advancements, and some of them had been demolished in the middle of the 20th century. This period, when most railway station was

abandoned or demolished, could be called as "dark ages of the railway industry". The original Euston station building was demolished and replaced with a modern terminal structure while King's Cross's original station was extended with more complex structures. On the other hand, Atocha station was replaced with new terminals that could meet the dense railway traffic and pedestrian flow. Gare d'Orsay was replaced with the modern underground train station. What will be the future of 19th-century train station buildings if they are not used as "nodes"? Historic station buildings are potential "places" for the complex while new terminals are used as "nodes". Demolishment of these historical places showed that new terminals become just "nodes" and they lose the balance between "node" and "place".

Penn Station in New York is the clearest example. The original station building was conceived by inspiring from Roman Baths and had magnificent architectural value. That architectural beauty made this station a "place" while it accommodates railway tracks underground as a "node". Demolishment of the station and replacement of the original building with a super-modern high-tech building removed the "place" characteristics of the station. The main reason behind it is the loss of history and identity qualities of the building. The statement completely coincides with Marc Auge's "place" definition: place can be defined as relational, identical, and historical[34]. Also, Jean Dethier claims that modern stations are nothing other than machine cult[35]. Adaptation of historical stations as "public places" and reuse of them with facilities that will respond to contemporary necessities will bring positive consequences. The creation of a tropical garden inside of Atocha Station and the transformation of Orsay into a museum are the most prominent examples of the adaptive reuse of the station as a public space.

The spatial layout of the 19th-century stations is a fundamental quality for their transformation into public places since each layout behaves in apart way. While U-shape spatial layout interacts with the urban structure in three directions, which is essential to attract people from more diverse locations, the one-sided layout is alive on the side where the station building is located and isolated on the opposite side. For example, the original U-shape typology of the Atocha station enables accessibility from three directions to the tropical garden inside the historical station, which increase the possibility of intense and diverse use of the place.

On the other hand, King's Cross station building had originally one-sided plan typology where all facilities were located on the one side of the station building. In that case, people are forced to enter the station from a specific location, therefore it is normal to see sign symbols directing people toward the entrance. In the current situation, this contradiction between the two sides continues. The entrance region of the station is vivacious with outdoor public spaces and retail facilities, the opposite side is deserted with a giant blind wall. As seen in the examples, the existing spatial layout of 19th-century former stations affects the potentiality of the transformation of places and their adaptive reuse. Even sometimes interior division could follow the same layout as the former station.

For example, Gare d'Orsay had a twin-type plan with central rail tracks. During the transformation of Orsay into the museum, the spatial layout of the station was preserved by placing functions on both sides.

34 Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity* (London: Verso Books, 1995),77-78

35 Centre Georges Pompidou, *Le Temps Des Gares* (Paris: CCI Edition, 1978),15.

2 Station as Hedonistic Public Space

2.1. Components for Potential Hedonistic Place

"Station, a great door open to the lovely immensity
Of the Earth, somewhere on which divine happiness
Like an unexpected, dazzling thing, must be."[36]

Valery Larbaud

Poem titled "The Old Station at Cahors" expresses clearly Larbaud's equation of happiness with the station. Station buildings were looking so familiar from the exterior until entering via the domestic door. After the entrance, as though from a canon, passengers were deluded through the transformed scene. As in Larbaud's poem, this deception was so successful that the station came to be associated with the potential of happiness in the past. Moreover, many painters including Claude Monet and Salvador Dali imagined the stations from different perspectives. Dali reflected his enthusiasm and appreciation of Perpignan Train Station through his surrealistic style, by reflecting the station as the "center of the universe". He defined this station as a place of genuine sanctity, a pivot of the cosmos which offered a unique perspective on the entire universe[37]. Monet rendered The Gare Saint-Lazare by using very distinctive quality railway stations. Steams of trains turned into clouds. However, these optimistic and utopian dreams and descriptions remained as imaginations. Expectations to create a convergence place where all social groups would meet could not be realized completely. The spatial division of social groups in the station building and social class discrimination in trains are the most prominent obstacles that disappear the public space quality of railway stations.
On the other hand, railway stations have powerful potential to be a place, which gives pleasure to people, as in the paintings of Monet and Dali. Five main qualities that railway stations have could lead industrial structures to public spaces where people would enjoy having existed there.

36 Tom Wilkinson, "Typology: train station" *The Architectural Review*, May 26, 2022, https://www.architectural-review.com/essays/typology/typology-train-station

37 Nicky Gardner,Susanne Kries, "The centre of the universe" *Hidden Europe*, Apr 13, 2015, https://www.hiddeneurope.eu/the-centre-of-the-univserse

Fig.10 | La Gare de Perpignan
*(*Salvador Dali*,1965*

Fig.11 | Saint-Lazare Train Station
*(*Claude Monet*,1877*

2.1.1. Place of "Non-Places"

Super modernity has been growing up in different branches of architecture. Especially industrial buildings such as airports, factories, and railway stations are the first witnesses of super modernity. The adoption of functionalism and international style created rigid, formal, and identical buildings that lack historical and cultural references. Growing modernism and international style in architecture around the world pulled out the "identity" and "historical" characteristics of the station buildings, and each station turned into a simple artificial structure. Therefore, most of the railway station buildings are very similar to each other and architectural elements that define the station building have been detached from the buildings. Modern railway stations compared to 19th-century stations were conceived as "nodes" rather than "places". They promote speed and dynamism without allowing people to spend their time in the station. Waiting rooms were replaced by a row of benches, and aesthetical concerns were ignored for the sake of functionalism, facades are covered with glazing walls and super modern steel structures. As a result, the station lost its characteristic appearance. Above all, any external sign for the railway station disappears. If the "station" signboard is removed from the building, this building is indistinguishable from any other commercial or retail building. Consequently, the architectural value of the stations disappeared and super modernity created "non-places". They have become inhabited spaces that are used for passing by. Extracting feelings from the station building and designing them as a gigantic shopping mall or office structure leave these areas empty in terms of feelings[38].

The transformation of Euston Railway Station from a conventional design into a superficial modern structure is a very clear example of the alteration of the station's characteristics as "non-place". Before demolition, the original station had an imperial appearance and people were able to spend time in the grand hall. However, the hall, which was replaced during the demolition process, became a non-place where passenger passes by in the current situation. Station's capacity increased, transportation traffic was facilitated, and the station became a dynamic area, but all these figures pulled out the "place" characteristics and turned it into a "non-place".Marc Auge explains that super modernity reveals itself in non-places as a result of the three figures of excess: the overabundance of events, spatial overabundance, and individualization of references[39]. However, revealing non-places creates an opportunity for transforming 19th-century stations into hedonistic public spaces.

The new super modern Euston station proves the statement of Auge. As stated in the previous chapter, historical stations are not capable of meeting dense transportation traffic and, as a matter of course, most of them have to be extended with contemporary structures in order to adapt current necessities of transportation traffic. Through examples from the world, it is obvious that these contemporary terminal structures are conceived as "non-places" by avoiding any cultural and historical references. However, the historical station has very strong potential to be a "place" for these contemporary "non-places". Old and new railway terminals are integrated into each other and people easily could jump from one to another. For example, the historical station in Atocha is used as a public space where people wait for trains while newly built structures are the typical examples of "non-places". When a person enters to "non-place" space, he is freed of his regular determinants. In the status of a passenger, he is nothing more than what he does or experiences. The person still could feel burdened by the troubles of the day, but the unfamiliar atmosphere and environment of "non-place" separate people temporarily from daily worries.

38 Centre Georges Pompidou, *Le Temps Des Gares* (Paris: CCI Edition, 1978),15.

39 Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity* (London: Verso Books, 1995),109

Fig.12 | Original Euston Station "Place"
(Brooksbank,1960)

Fig.13 | Modern Euston Station "Non-Place"
(Bloomberg,2018)

"He tastes for a while the passive joys of identity loss, and the more active pleasure of role-playing"[40]

Marc Augé

Original 19th-century stations that are freed up from transportation quality are able to maintain qualities such as "identity loss" and "disappearance of daily concerns", created by non-places, in a physical environment as "a place". Contrary to conventional public spaces, railway stations have the opportunity to create a hedonistic public place by fending off daily concerns from the minds of users. In that place, the only concern of people will be activities and events. They will move away from the negativeness of the world under the magnificent architecture of the former stations. For example, the former station in Atocha has been transformed into a tropical garden which reveals excitement and joy, as if you are walking in the tropical jungle of somewhere in the world. Another example is Musee d'Orsay. Until people enter the interior of space, they are part of daily life. However, when they enter the museum, they feel as if they are part of an Egyptian ceremony. These subtle references to culture and history both keep people apart from making direct correlations with daily life and create a new identity that does not belong to the real world. Therefore, temporary joy is attained when the train arrived at a non-place, and that pleasure will continue and be extended inside of the original station through collective facilities and interaction with other candidates. Each candidate will taste this temporary enjoyment moving them away from negative conditions. Also, Jean Chevalier approaches the stations from a psychoanalysis perspective;

"expression of the unconscious, the point of departure of evolution, of our new material ventures, both physical and spiritual, it is a center able to evoke the self […]"

2.1.2. Intense Use

The second important complement that makes the station a potential hedonistic space is the intensity of use. The intense utilization of the place makes it attractive and alive. As Jan Gehl explains, human activities attract other people and most people choose a lively place rather than a deserted one even if they have the same functions and are of the same quality[41]. Railway stations as the main "nodes" of the urban structure are the places where intense use always exists. The dynamic structure of the station with unfinished pedestrian traffic makes these regions lively. As a focal point of various transportation networks ranging from buses, metro, regional trains, and HS trains, they present diverse accessibility opportunities. Citizens in their daily life use these nodes multiple times in order to transfer to another transportation mode or to reach a destination. Therefore, these places have constant intense use compared to conventional public spaces. For example, Atocha station, which is the busiest and most intense transportation hub in Madrid, hosts more people than Plaza Mayor, which is the biggest plaza in Madrid. Node characteristics of the stations are the fundamental element leading them to intense use. However, it is essential that intense use also could create chaos and crowd. Therefore, the spatial design of the station is crucial at that point to prevent possible congestion and negative experiences. To provide optimal intense use inside the building, spatial division of areas is the first and foremost element. At the same people should contact others to encourage interaction. Thus the quality of space is essential for the intense use of the area.

40 Marc Augé, *Non-places: Introduction to an Anthropology of Supermodernity* (London: Verso Books, 1995),103

41 Jan Gehl, *Life Between Buildings:Using Public Space* (Washington: Island Press, 2011),23

Fig.14 | Gare du Nord Interior

That station points are the gravity center of the urban structure designates them as new public places for convergence, gathering, and meeting in daily life[42]. Their localization in urban structure and interaction with the rest of the surroundings are the determinant features. Railway stations that are located in the heart of urban fabric could interact with surrounding facilities and attract more people from the environment. Integration of station into the urban fabric is the most significant feature in order to adapt as a public space and encourage people to participate in that area. Intense use in the station region increases the utilization frequency of surrounding facilities, which directly impacts again station. They create a "cycle of intense use". The layout of the station is a decisive element for interaction with the surroundings. As discussed in the previous chapter, King's Cross's one-sided plan limits its interaction with the other side, so it appears a contradictory situation in terms of intense use of both areas. Also, intense use is directly related to the accessibility of the area. In order to attract more people to public spaces, design has to take old people, disabled people, and children into consideration.

Most of the 19th-century stations are gigantic and enormous structures with large spans. Their large capacity allows for accommodating crowds. In some station buildings height of the station reaches 40 meters or above, which these station buildings could respond to intense use of the area. Intensity use is directly affected by the diversity of functions and effortless accessibility from non-place to place.
Therefore, station areas are appropriate places for the creation of hedonistic space, because they are always lively and have the potential to attract people from everywhere due to their easy accessibility and enormous capacity. However, intensity should be balanced through the spreading crowds toward apart areas inside the station, otherwise, it will be created chaos and the place will turn into a non-place.

42 Centre Georges Pompidou, *Le Temps Des Gares* (Paris: CCI Edition, 1978)

2.1.3. Diversity

Every day, the station is used by millions of passengers. Railway stations have diverse user profiles ranging from old people to disabled and children. It is a valuable condition for the creation of a hedonistic public space since candidates of the hedonistic public place will be able to interact with different kinds of individuals. Creating multifunctional public spaces inside or outside of the station addresses several travelers or citizens visiting this place. Diversity in collective facilities needs to be designed and placed according to the requirements of the area. In this way, they can have repercussions on the overall quality and experience of the space. Diversity firstly attracts the attention through the dialectic architecture of the station, imperial design by architects, and industrial part by engineers. Contradictory approaches came to life in the station. In a subtle way, the station conveys the message, it is a convergence center. Station expresses multiple paradoxes of society and brings them together. Jean Dethier portrays the stations as the "Modern-day Tower of Babel". His reference to the Tower of Babel is correlated with the diversity of individuals, and he describes railway stations as public spaces where all social classes rub their shoulders[43]. The existing diverse population of railway stations has very powerful potential to correlate the diversity of passengers and architecture with multi-functional facilities and activities. In this way, each person could find his/her own joy and self-interest in the station. Hedonistic public space will be the center of differences as in the past. Diversity in architecture, user profile, and function, as a matter of course, will bring intensity.In order to diversify the public spaces with various activities, surrounding functions are vital elements. For example, the museum transformation of Orsay is directly correlated with its location. Orsay stands in the center of Paris where all cultural venues were cluttered. The existing reality impacted its function and creation of diversity in terms of art in Orsay is an obvious example to prevent a monotone atmosphere and making the here vivacious place. Everyone could enjoy it.Diversity makes people happy and social interaction brings pleasure. Diversity, thus, is the third complement that will provide public space that brings happiness and satisfaction to the station. In the last two sections, it will be discussed the endless accessibility, which is related to intensity and diversity, and finally the architectural heritage of the stations for making people happy.

2.1.4. Effortless Accessibility

People always choose the quickest and easiest way to reach somewhere. As a physiological behavior, human beings select the way that they will spend the least energy and effort[44]. Thus, it is the same situation for railway stations, and it impacts spatial design. Directional accessibility requires less cognitive and physical effort for accessing the target point, which keeps people energetic and vigorous. On the other hand, a complex layout for arrival and departure points causes opposite reflection and creates chaos, which directly drops the quality of experience while inside the station. Preventing congestion in pedestrian traffic is also correlated with effortless accessibility. In most railway stations, departure and arrival terminals are separated to avoid congestion and facilitate the flow of traffic.

Railway stations due to their "node" characteristics accommodate different transportation modes, so they are the most easily accessible places compared to any public space. Therefore, many people will choose to use the station as a public space instead of walking 1km to reach a conventional public space. Surrounding facilities also empower the effortless characteristics of the stations. For

43 Centre Georges Pompidou, *Le Temps Des Gares* (Paris: CCI Edition, 1978),14.

44 Christopher Martin, "Hedonistic Urbanism," *Urban Design* , no. 155 (2020): 26

example, famous cultural venues such as Prado Museum, Retiro Park, and Reina Museum in Madrid are located around Atocha Railway station. Hence, tourists could easily visit the surrounding area in a day and they can come back to their home. They do not need to go to Plaza Mayor, since it is far away from cultural venues. In another example, Orsay (museum) as a public space is very close to world-class museums such Louvre and Pompidou Center. As stated in chapter 1 through diagrams, head type and U-shaped type stations have the most convenient plan typology in terms of effortless accessibility, they are directly connected with the city and the terminal behind. Also, pedestrian flow inside the station is managed easily, especially in the U-shaped plan typology since the central courtyard facilitates flow.

Therefore, effortless accessibility is the fourth main complement that promotes hedonistic public space by preventing congestion and creating a comfortable atmosphere inside the station.Effortless accessibility increases the intense use of the space and people could experience diverse functions without endeavor.

2.1.5. Architectural Heritage of Station

19th-century historical station buildings' designs follow the traces of immense traditional archetypes such as basilicas, baths, cathedrals, and towers. Although the main reason behind the selection of traditional architectural typologies is to conceal the modern industrial superstructures in the early times of railway stations, it is inevitable fact that they have powerful architectural and atmospheric value for the users, even today. As a matter of course, the enormous and unique architecture of railroad stations makes cultural and historical references through the use of classical architectural elements. Therefore, each station building has its own unique identity compared to the international style of modern stations. The creation of historical references through traditional architecture typology is visible in most of the 19th-century stations. For example, Penn Railway Station had been conceived as Roman Bath. It had a classical cross-plan typology and giant arched windows placed on the vault. Furthermore, the monumental entrance with a row of gigantic stone columns demonstrated the power of the building and the Roman-inspired entrance gave the building exalted character, which reveals the unique feelings and excitement while experiencing that building. It could be felt like a king entering a church or old Roman temple. The Interior space of Penn Railway station maintained to dignify this noble atmosphere. The high ceiling enabled passengers a bright and spacious experience in which users could feel comfortable and relaxed whereas the sharp contrast between light and shadow also contributed to the serene atmosphere of the building.

These classical architectural features and the atmosphere of 19th-century railroad stations inject pleasantness into people. The ornamental aesthetic qualities and eye-pleasing proportions are the main complements that please users. Due to classical architectural elements, station buildings could be evaluated as heritage. As an architectural heritage, 19th-century railroad stations have very powerful potential to make people happy through their beauty and enormous proportion. There are several reasons why classical architecture is a strong complement that could satisfy people. Materiality is one of them. As in classical architecture, the stone is the main construction material of the railroad stations. The use of stone not only emphasizes the immense and heavy architectural character of the buildings but also connotates historical churches and palaces. John Ruskin indicates that natural forms make people happy and give them pleasure more than artificial forms[45].

45 John Ruskin, *The Seven Lamps of Architecture*, (Kent:Sunnyside, George Allen, 1889), 105

Also, he asserts that good architecture should exclude the use of iron as a structure material, therefore works such as industrial sheds and metal pillars of railway stations are not architecture at all[46]. Natural materials such as stone, clay, and wood make good architecture according to him.

Stone as a natural material reveals various feelings. People could perceive if the stone is old or new by touching and seeing the material. They can understand the durability and life experiences of the material through corrosion or carvings on the surface of the stone block. Stone, with its heavy appearance, demonstrates durability and gives confidence to people. It is convenient material in order to create a familiar physical environment. That is why the human-centric part of the station has been built with stone while steel was dedicated to the train-centric part. However, metal does not have the same qualities as the stone for experience, perception, and aesthetics. It is an artificial material and does not make cultural and historical references as stone does. When the original Beaux-Arts Penn was torn down and replaced by a modern, formal, and rigid structure, the building lost its dignity and turned into a dull structure without unveiling any emotions. While it was one of the crown jewels of New York's civic and architectural heritage, nowadays it is indistinguishable from the shopping mall. The elimination of classical forms such as monumental columns, vaults, and arched windows caused the loss of architectural character. It is no more enjoyable place. Hilary Ballon described the original station by writing that Penn station did not make you feel comfortable, it made you feel important. Also, Vincent Scully, an architectural historian, likened the disappeared terminal to entering the city like a God while the modern tawdry replacement scuttles like a rat[47]. These statements clearly demonstrate the importance of the 19th-century station buildings' architectural beauty for the well-being of passengers. They could feel important or they can feel the past and life experiences of the station. Moreover, through classical forms and familiar materials, stations emerge a soul in which people perceive these structures as alive and familiar rather than the dull appearance of rigid modern structures. The contradictory situation could easily be understood in Penn Station.

The whole system of railroad traveling is dedicated to dynamism and speed. Compare to the serene atmosphere of the church or cathedral where people have to move slowly and silently in order to keep the dignity of the place, railroad stations had a completely opposite character in that speed and dynamism are dominant elements. Due to this dynamic structure of stations, people not always are capable of understanding and experiencing the beauty and aesthetics of the magnificent station architecture. Ruskin also expressed that the smallest portion of ornaments in railway stations is unnecessary since travelers would not recognize these details and beauty will not work as it was planned. Also, he adds that if stations were allowed to work for their own purposes, railway stations would emerge its dignity[48]. It is fact that the architectural heritage of former stations would be more enjoyable and better understood under a comfortable physical environment and silent atmosphere. In most places,19th-century railway stations which are unequipped to accommodate HS trains have been enlarged with contemporary steel structures. Therefore, former stations as "places" of the new contemporary "non-places" could be experienced in a better condition by being separated from the "non-place". In this way, people transmute their passenger role, which they gained in "non-places", to the role of an "important person" under the roof of dignity.

46 John Ruskin, *The Seven Lamps of Architecture*, (Kent:Sunnyside, George Allen, 1889), 40

47 Michael Beschloss, "Penn Station:A Place That Made Travelers Feel Important," *New York Times*, January 4, 2015,https://www.nytimes.com/2015/01/04/upshot/a-place-that-made-travelers-feel-important.html

48 John Ruskin, *The Seven Lamps of Architecture*, (Kent:Sunnyside, George Allen, 1889), 121-122

Fig.15 | Original Penn Railway Station as "Roman Bath"
(Museum of the City of New York,1911)

Fig.16 | "Modern" Penn Railway Station
(Kauzlarich,2021)

2.2. Public Exodus Centers

Railway stations are new exodus centers for people who would like to escape from the stress of daily life. Five main complements, which lead these industrial structures to a potential public space where people would satisfy and arrive in joy, constitute the main identity of the railroad station. A large number of historical stations are located in the heart of the urban structure, so they are indifferent to conventional public space in terms of localization. Their favorable qualities such as effortless accessibility, constant intensity, and architectural beauty make them prominent places among the rest of the conventional public spaces. Thus, it is clear that these industrial buildings have more advantages than traditional public spaces. Therefore, railroad stations are strong candidates to be public spaces in contemporary cities. In most megacities, stations have been spread out in different territories of the urban fabric. While some of them are very close to cultural venues, some of them are located in the middle of the commercial zone, and each station building could easily address its surroundings. Consequently, station buildings and regions have all the potential qualities to be future public spaces. In order to understand how a station could be an exodus center for citizens, it would be made a comparison between "The Voluntary Prisoners of Architecture" project by Rem Koolhaas and the spread of each pleasure zone to different stations in London.
"The Voluntary Prisoners of Architecture" project that was developed by Rem Koolhaas, Elia Zenghelis, Madelon Vriesendorp, and Zoe Zenghelis collaboratively is the creation of a giant strip in the middle of London. Massive walls cut through the city's fabric, splitting it into two parts. The intervention was designed to create a new invigorated urban culture through architectural innovation. According to the utopian project, people would refuge in this prison voluntarily to taste endless pleasure through various facilities. Strip has been allocated to eight different zones which range from allotments to parks of elements. Each zone was dedicated to apart collective function that targets to make people happy. The concept of the walled city was inspired by the Berlin wall effect after cold-war. Although "The Voluntary Prisoners of Architecture" project was a utopian project that was conceived to meet the desires of people in the metropolitan, its architectural manifesto is strong. Rem Koolhaas also explains:

"Suddenly, a strip of intense metropolitan desirability runs through the center of London. . . . From the outside this architecture is a sequence of serene monuments; the life inside produces a continuous state of ornamental frenzy and decorative delirium, an overdose of symbols."[49]

This utopian project aiming to inject people overdose joy and pleasure would be able to realize in railroad stations as hedonistic public spaces. Rem Koolhaas developed the project in London which accommodates a lot of railroad stations in the middle of the urban structure. On both sides of the River Thames, station buildings that range from King's Cross on the north and Waterloo on the south situate. As could be seen from the map, station buildings spread out the various neighborhoods with different characteristics and qualities in London. The first map is an elaborated drawing of the original "The Voluntary Prisoners of Architecture" project as a walled city within the city. On the other hand, the second map illustrates what could happen if each zone of prison spreads out to different station regions as a collective public space. Each zone would become an extension of the railroad station. When people arrive at to train station, they will, as a matter of course, lose their identity and negative notions due to the "non-place" quality of the terminal. Unconsciousness attained at "non-place" would be able to be maintained in these "pleasure zones" involving 19th-century station buildings. In that way, people would be detached from the reality of

49 Rem Koolhaas, Bruce Mau, *S,M,L,XL*, (New York:The Monacelli Press, 1997)

Fig.17 | Exodus Project,Rem Koolhaas
(Redrawn by Servi,2022)

Fig.18 | Stations as "Exodus" Centers
(Illustrated by Servi,2022)

the world until they leave this zone. Their role as a person will be completely different compared to the real world and users will feel themselves "important", which is a vital complement for making users happy. In this way, passengers will get rid of daily concerns and troubles. They will reach endless experiences of frenzy through various functions and activities. Each station region will be the center of hedonistic public convergence in the physical reality of urban structure. Diversified, but also central, locations of these public exodus centers enable to be experienced by various social classes and neighborhoods. These locations are open to everyone and able to accommodate a wide scope of the user profile.The architectural design of these hedonistic public spaces would be an operating complement that will lead people to endless joy and excitement. Each exodus center would create a new centrality within the neighborhood, which coincides with the main conception of the new invigorated urban culture. Hence, each public exodus center will get a chance to have a unique design that will be compatible with the surrounding context. Existing architectural heritage characteristics of 19th-century stations are the main component that will inject pleasure to users. People will migrate toward these locations not only from the train station but also from the surrounding area. In that way, railway stations will gain a new identity and will be a convergence point of desire.

Fig.19 | Public Exodus Centers Collage
(Illustrated by Servi,2022)

2.3. Impacts in Different Scales

Public exodus centers will have positive urban and regional impacts in metropolitan areas and will bolster the well-being of people. Station regions are compact ecosystems involving station building and its surroundings. Since both entities work for each other, the interaction between the station and surrounding facilities cannot be ignored. As seen from the past examples such as the case of St Pancras Station or Atocha Railway Station, the conditions of railway stations directly impact the surrounding fabric. When the station building was disused, the appearance and conditions of the surrounding area, as a matter of course, got worsened. Therefore, the readaptation of railway stations, especially abandoned or underutilized station buildings, in the central area of urban structure will revive the economical and social conditions of the region. Citizens living around the station region will be able to swarm toward these new public centers to have quality time during their free time whereas arrival passengers leaving the railway station would benefit from the service facilities such as commercial and retail venues of the region.

Consequently, the interaction between the station and its surrounding constitutes a mutual relationship. The intense use and diverse character of stations maintain the vivacious and dynamic atmosphere in the surrounding context.

On the other hand, stations do not only accommodate one type of transportation which is the railway. They involve multiple transportation modes ranging from bus to metro. Their node character facilitates the access of people from remote locations on a metropolitan scale. Citizens could visit the station on weekends to spend their whole day or linger for a short time while waiting for trains. Even if people do not use the station for travel purposes, there are many passengers who use central stations to transfer from one type of public transportation to another one. During waiting time, they can explore the enjoyable and vivacious atmosphere of the public center and their minds would be filled with positive thoughts. Public exodus centers have the potential to attract people from different parts of the city under favour of the node characteristic of the railway station.

Therefore, their impact goes beyond regional impact and reaches metropolitan impact, which bolsters the well-being of people on different scales.

The final and largest impact of readaptation of central railway stations as public exodus centers is international impact. In most major cities in the world, central railway stations are integrated with airports to facilitate and accelerate the accessibility of passengers from the airport to the city center. In this way, people could reach the city center in 20-30 minutes in a comfortable transportation mode. Thus, railway stations are the places that give foreigners and tourists the first impression of the city and neighborhood.

It is essential for especially tourists to start their journey in an unknown place with positive thoughts and feelings of amusement. Their only duty will experience pleasure during their journey, which is important to leave positive traces on the minds of visitors to attract more tourists to experience a pleasure. Diverse profiles spend their time in the collective and cultural functions of public centers.

Part 1

3 Atocha: Linear Metamorphosis

3.1. Background

Atocha railway station was opened in 1851 with the inauguration of the Madrid-Aranjuez line. As Madrid's first station building, it had been constructed with a wooden structure and had a simple building typology with two storeys. As so most of the stations had been constructed on the outskirts of the urban core at that time, Atocha, which was originally a gateway of the city, also was located on the border of the city. The wooden station was partially destroyed by fire in 1864. Later, the station encountered many enlargement and development phases. The principal reason behind development projects was to increase the number of tracks to cope with the high level of transportation and pedestrian traffic. The former station, which still stands out today, was constructed with a metal structure by Alberto de Palacio in 1892 to increase the capacity of the station. Integration of the new metal canopy with the station's classical architecture gave it a landmark characteristic with its unique façade. The central monumental façade blends classical architecture elements with an industrial metal canopy structure, a mixture of architecture and engineering. The project of Alberto de Palacio was the initial step for the integration of public uses in the station. It was the first time the creation of waiting rooms, and some public facilities in the station building.

The initial plan of Atocha consisted of two-sided patios, one for arrival and the other for departure passengers, and a garden in front of the monumental façade. Although the central façade of the station was the most attractive and symbolic piece of the whole station complex, passenger circulation was left to two wings of the station. Left-wing corresponded to departures passengers whereas right-wing was used by arrival passengers. The Center part, which unites the station's two-sided naves, was used as waiting rooms for both departure and arrival passengers, and it included cafés. The central part of the U shape with gardens in front of the central façade corresponded to the public use. Therefore, the main header of the station remained as a formal element rather than a functional entrance.

The monumental façade looks toward Plaza Mayor, the largest square in Spain. When the station was initially designed, it aimed to establish a relationship with Plaza Mayor and surrounding structures such as the fountain, hospital, botanical gardens, and the astronomical observatory. One of the reasons for the movement of the entrance to the left wing was the necessity to establish a

Fig.20 | Atocha Station,1904
(Purger & Co. München,1904)

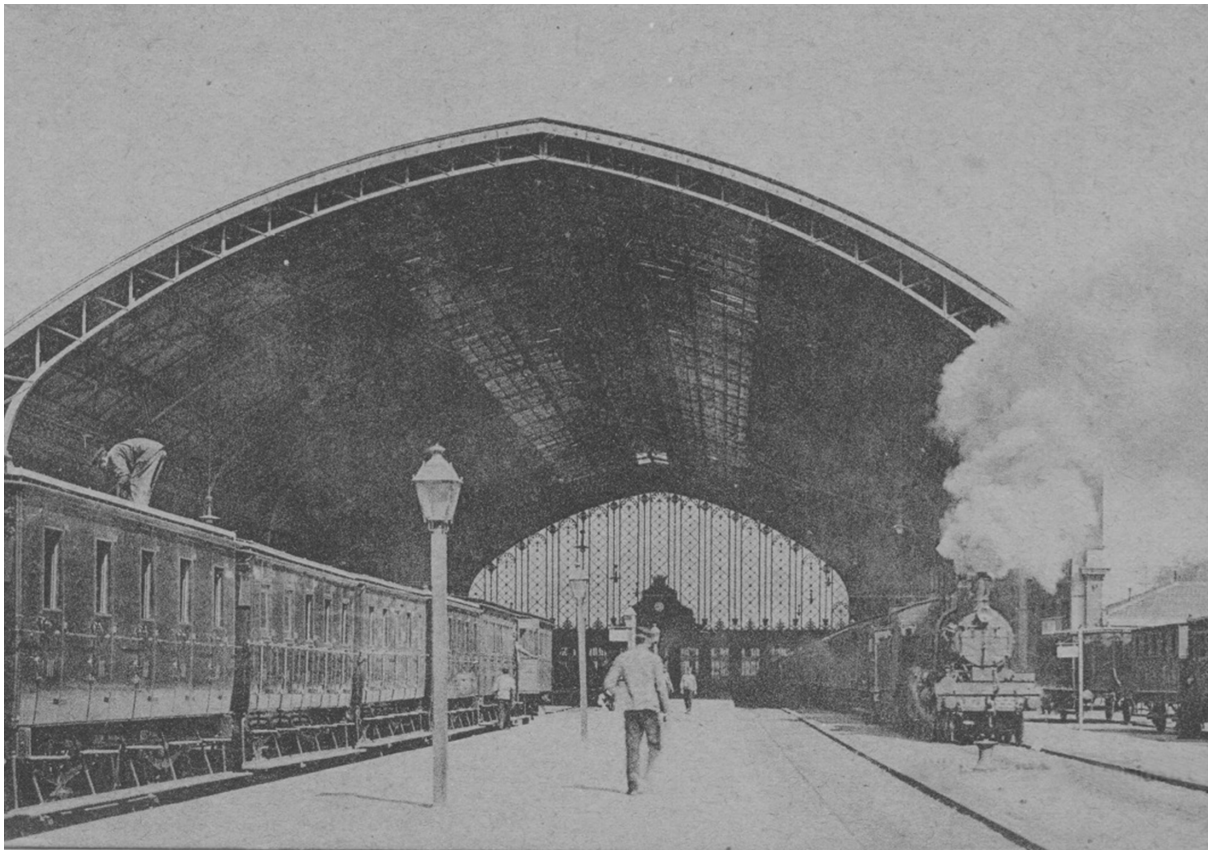


Fig.21 | Atocha Station Platforms
(La Comunidad de Madrid Archive)

relationship between the station and Paseo de Atocha. However, the relationship of the station with its surroundings and urban structure could not be achieved despite many initiatives being performed. Fences surrounding the station complex created a barrier between the city and the station, while railroads and Atocha station became a gap in the urban structure of Madrid. The barrier effect of the station continues even today, and correlation between surrounding areas still could not be achieved. Connection with surrounding buildings remained visually but not physically. Until the 1988-1992 development plan that was carried out by Rafael Moneo, the station was isolated from the surrounding area, and it could not become an important part of the city.

3.2. Endless Problems

In order to understand the evolution of Atocha Station and the city, it is required to investigate the situation of the station area and its relationship with neighborhoods in the 1970s before intervention. The historical railway station was encircled by high dense traffic flow in that period, which was a disturbing condition for passengers using rail transport and citizens living around the station. On the map of 1977, it could be recognized the appearance of factories, warehouses, docks, sidings, and industrial workplaces related to the railway. The industrial character of this region was a visual and physical void within the central urban structure. Besides visual interruption in the continuity of the city, station land was also isolated by physical structures.

The station and its surrounding area have not undergone considerable configurations until 1968 when the construction of flyover (Scalextric) infrastructure was completed. At the end of the 19th century, the gap between the North and South of the urban structure increased. While the south part of the city was poor, the north part continues to develop, which caused intense traffic flow from the south to the north part of Madrid[50]. As a matter of course, traffic density grew up at that time in the Atocha region since Atocha station was a connector between south and north. Therefore, Scalextric was constructed in order to solve the traffic chaos that existed in that part of the city." All roads from the south lead to Atocha"[51] phrase repeated by Fernandez Gutierrez clearly summarizes the infrastructure problem in that region. However, the construction of the overpass brought a lot of problems related to the station and region. Gigantic Scalextric concealed roundabout and cut the relationship between city and station. Overpass became a barrier that prevents physical and visual dialogue and the relationship between city and station. In that period, the barrier appearance of station complexes and railroads emerged obviously. Moreover, this enormous infrastructure worsened traffic jams, which caused a rise in air and noise pollution affecting surrounding buildings and neighborhoods negatively[52]. That inferior conditions directly pulled down the attractiveness of the historical station and the Atocha station complex continues to become a barrier element between the two neighborhoods located on both sides of the industrial region. Lack of infrastructures such as a bridge or underground tunnel, crossing the railroad carried the issue one step further.

The visual and architectural relationship between the monumental façade of Atocha station and the classical-style facades of historical buildings surrounding the station could not be established due to the station's poor physical connection. Trees and plants in the garden cover and conceal

50 Javier Frechilla, "Atocha:La Llave del sur Mira al Norte," *Arquitectura* no. 255 (July-August 1985): 52

51 Borja Aróstegui Chapa, "La transformación de las grandes estaciones europeas con la llegada de la Alta Velocidad. El caso de Atocha" (PhD diss., E.T.S. Arquitectura (UPM), 2015), 165

52 Juan Ayrault Pérez, "South Madrid and High Speed:An Example of Symbiosis," *360. Revista de Alta Velocidad* no. 6 (June 2018): 111

the front façade, which is an immense part of the station, which broke the interaction between the station and the city. Also, two rows of trees were breaking the correlation between the street and station entrance. Dense traffic around station land was another major problem that avoided direct access to the station from surrounding areas while wrought iron fences that encircled the station area strengthened this border. Two layers of wrought iron fences in front of the station building were barrier elements that interrupt the interaction of the station building with the plaza and street. Only two entrances that pedestrians accessed the station were open. Therefore, people had only accessibility from one corner of the station area, which complicates the integration of the station into the surroundings. Therefore, the station area was still an isolated part of the urban structure.

Another principal issue behind the poor connection between city and station was the elevation differences between street level and station level. The elevation differences between the street and station building were another complement that complicates the easy accessibility to the station. People had to use the stairs to reach the entrance, which was not convenient utilization and limited ground-level accessibility by citizens. These main problems weakened the integration of stations into the urban structure. With difficult accessibility, lack of maintenance, and low-quality circulation management properties, Atocha railway station was far away from being a hedonistic public space that could be part of daily life. In order to attract people to this location, it was inevitable fact to realize a series of intervention decisions.

Until the development project, trains penetrated into the urban structure, because they stopped in front of the central part of the U-shaped building. Therefore, they were causing a high level of air and noise pollution around the station complex and surrounding neighborhoods. The exhaust of trains created a layer of fume on the surface of interior architectural elements. Harmful gas emissions from trains devastated the satisfying atmosphere of interior space. Old-fashioned trains created an inconvenient atmosphere for surrounding residents. Moreover, high-level air pollution arising from both trains and high dense car traffic damaged to facades of surrounding historical buildings such as Hotel Mediodia. Worse infrastructure was the flyover, which detaches the station from the urban structure by disengaging the connection of the station with Calle de Atocha leading Plaza Mayor, and Paseo del Prado. In terms of the physical barrier of the station, the station complex was surrounded by walls that do not allow any connection between neighborhoods, Retiro on the north and Arganzuela on the south. Paseo del Prado and Calle de Mendez Alvaro only could be connected through the street passing through the station land. From the map, it could be seen that the station region created a huge continuous gap in the middle of the urban structure. Atocha Scalextric was also interrupting the directional circulation between Plaza Mayor, which is the biggest public space in Madrid, and Atocha Station. Therefore, the flyover was a barrier element detaching the north part of the city from the south part. All these problems caused abandonment and underutilization of the Atocha station.

In that period, railway transportation was uncomfortable and very slow compared to other transportation modes such as airplanes and cars, which became the main factor leading the station to the abandoned industrial zone. However, the arrival of HS trains in Spain completely changed the future of station buildings and the region. Necessities coming from contemporary trains led the station to evolution in terms of image, size, and scope, which generated a change in the landscape of the region. Demolition of overpass infrastructure was the beginning of the transformation of Atocha railway station, later this intervention decision was followed by a large development project of Atocha station.

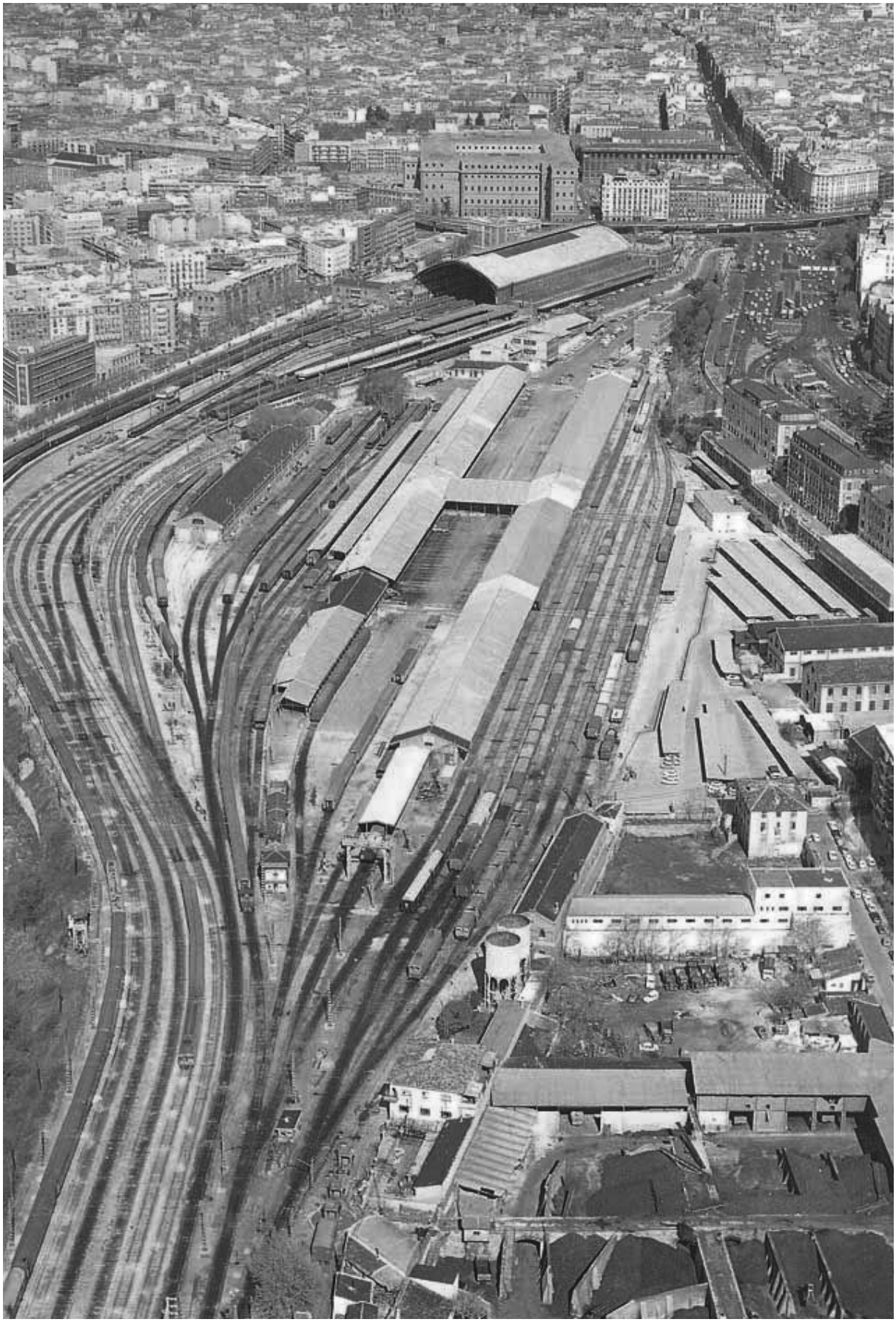
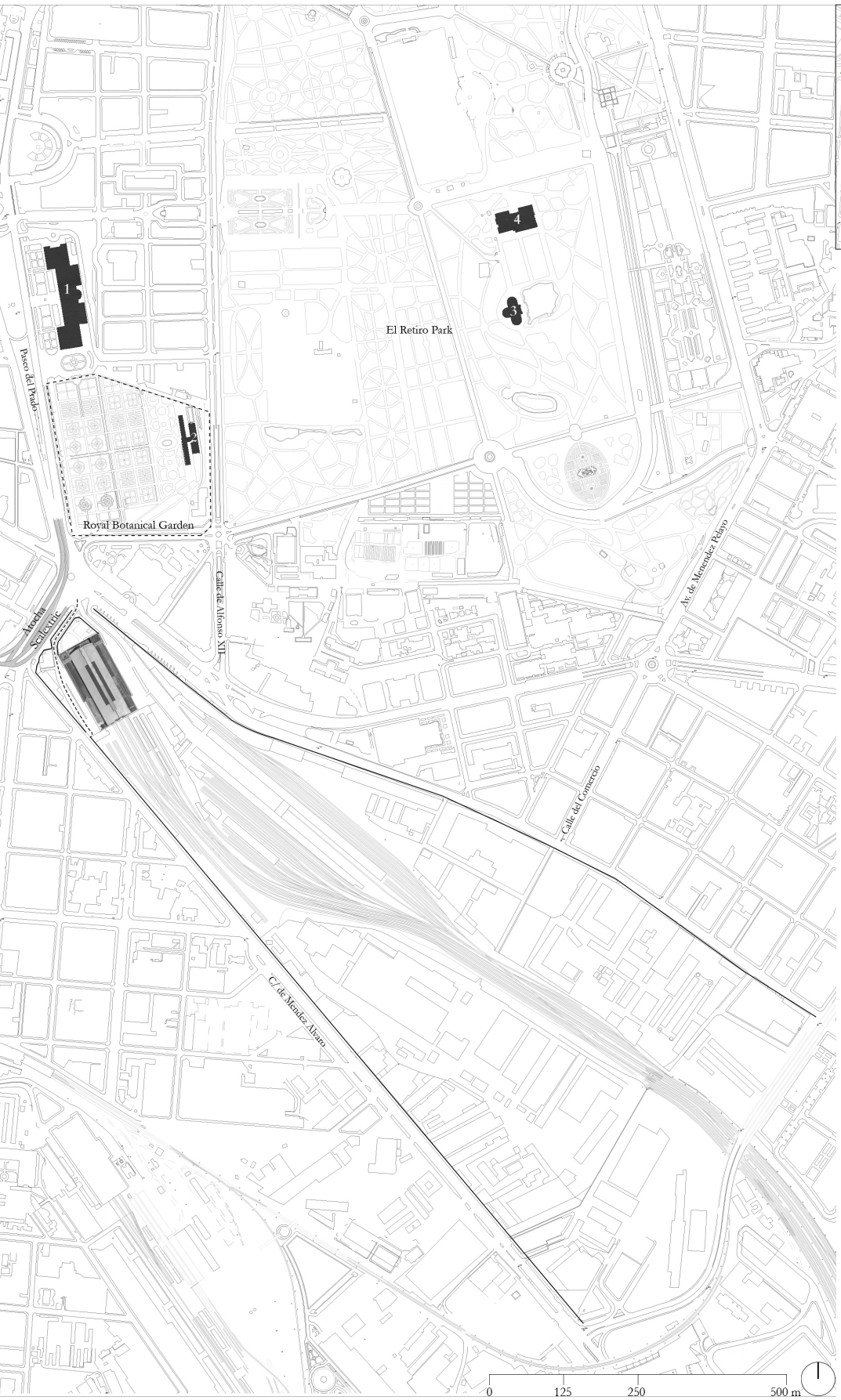
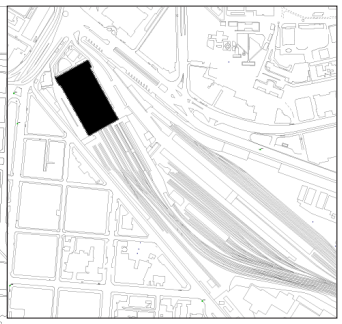


Fig.22 | Atocha&Surrounding Area Before Intervention,1980
(AIC,1980)


Plaza Mayor
Calle de Atocha





1. Prado Museum
2. Pabellon Villanueva
3. Crystal Palace
4. Palacio de Velazquez

Wall-Fences

Connection w/St.

1977

Fig.23 | Before Intervention
(Drawn by Servi,2022)

Fig.24 | Atocha Scalextric 1970s
(ABC News,2021)

Fig.25 | Atocha Scalextric
(Fuenterebollo Portal)

3.2.2. Recover Madrid

General Urban Planning strategy (El Plan General de Madrid 1985) aimed to transform Madrid in various scales and areas to treat the disrupted urban structure. Exponential population growth, lack of public spaces, and heritage threats lead Madrid to the transformation process. Cultural buildings and transportation stations gained weight in the context of "Recover Madrid" and they became key places in this transformation strategy. Atocha station became one of these regenerative elements leading urban planning since the Atocha station was the heart of railway transportation in Madrid. Moreover, its strategic location was very close to main cultural venues such as Reina Sofia Museum and Prado Museum in Madrid. Atocha Railway Station is located very close to the "Golden Triangle"[53] (Paseo del Arte) which is consisted of three main art museums, Reina Sofia Museum, Prado Museum, and Museo Thyssen Bornemisza, in the city. Therefore, El Plan General de Madrid and the development project of Atocha were carried out simultaneously.

Another significant reason for the parallel development of the city and Atocha station was the infrastructure. Ronda de Atocha is the key street for the car traffic coming from the south. That street was struggling with congestion problems due to a lack of planning system on roads. Therefore, management of surrounding infrastructure and its integration with the station for the prevention of congestion problems was as important as the enlargement of the station. With these characteristics, the Atocha development project is an urban scale project that impacts the conditions of the surrounding area and the city structure directly. Also, the notion of Moneo for the creation of urban continuity has been realized in the Atocha project. It could be stated that Atocha Station defined the growth of the city and revitalized a significant area in Madrid. The Atocha enlargement project also transformed the character of the region. Most of the abandoned public places and buildings such as the Mediodia Hotel, Reina Sofia Museum, Prado Museum, and Royal Botanical Garden have undergone refurbishment projects. Nowadays, these public and cultural venues shape the contemporary center of Madrid.

Infrastructure connected to railway stations and airports serves as exception laboratories, allowing for the exploration and definition of the terms under which cities grow[54]. The definition of "railway stations" as a "laboratory for exception" prove the significance of railway stations during the development of Madrid. Also, Rafael Moneo indicates that infrastructure cannot be disassociated from the urban landscape and architecture is the vital element in order to converge both entities. Moreover, It is an incontrovertible fact that infrastructural form best synthesizes the overall set of overlapping issues it addresses[55]. These statements gave the clue that the Atocha Railway Station would be the leading character in the development project of Madrid. In most cities, railway stations are seen as alien and non-desired entities. Atocha station was in this condition before the intervention, which impacted the surrounding appearance and quality of the city directly. Therefore, it is not coincidental the beginning of the development project in the station region. It was expected that the development of the station region would influence the inferior condition of the surrounding area directly.

53 Golden Triangle of Art is a term used in order to demonstrate the relationship between three important and world famous art museums which are Prado Museum, Reina Sofía Museum, and Thyssen-Bornemisza Museum

54 Carmen Díez Medina, Lucía C. Pérez Moreno, *"Sesiones Internacionales de Arquitectura y Ciudad: 2012 Paisaje Urbano y Paisajismo Contemporáneo*, (Zaragoza: Prensas de la Universidad de Zaragoza, 2013), 47

55 Fernando Marquez Cecilia, Richard Levene, "Rafael Moneo 1967-2004: The Solutide of Buildings" *El Croquis* ,2004 ,633

Atocha project brought about a change in how the station was previously used and perceived. Changing the character of the industrial architecture from a non-desired land to a convergence point in the urban structure triggered many developments in the city. City maintained to expand toward the south through restructuring street and circulation patterns in the station area, while most of the buildings around Atocha Station had been transformed into cultural venues, and the value of public space increased during that period. The rearrangement of the botanical garden and Retiro Park are the most prominent examples. Treatment of the Atocha Station complex would have not only a regional impact but also a metropolitan and international impact. A series of interventions that began at the beginning of the 80s still continues today.

3.3. Operation Atocha

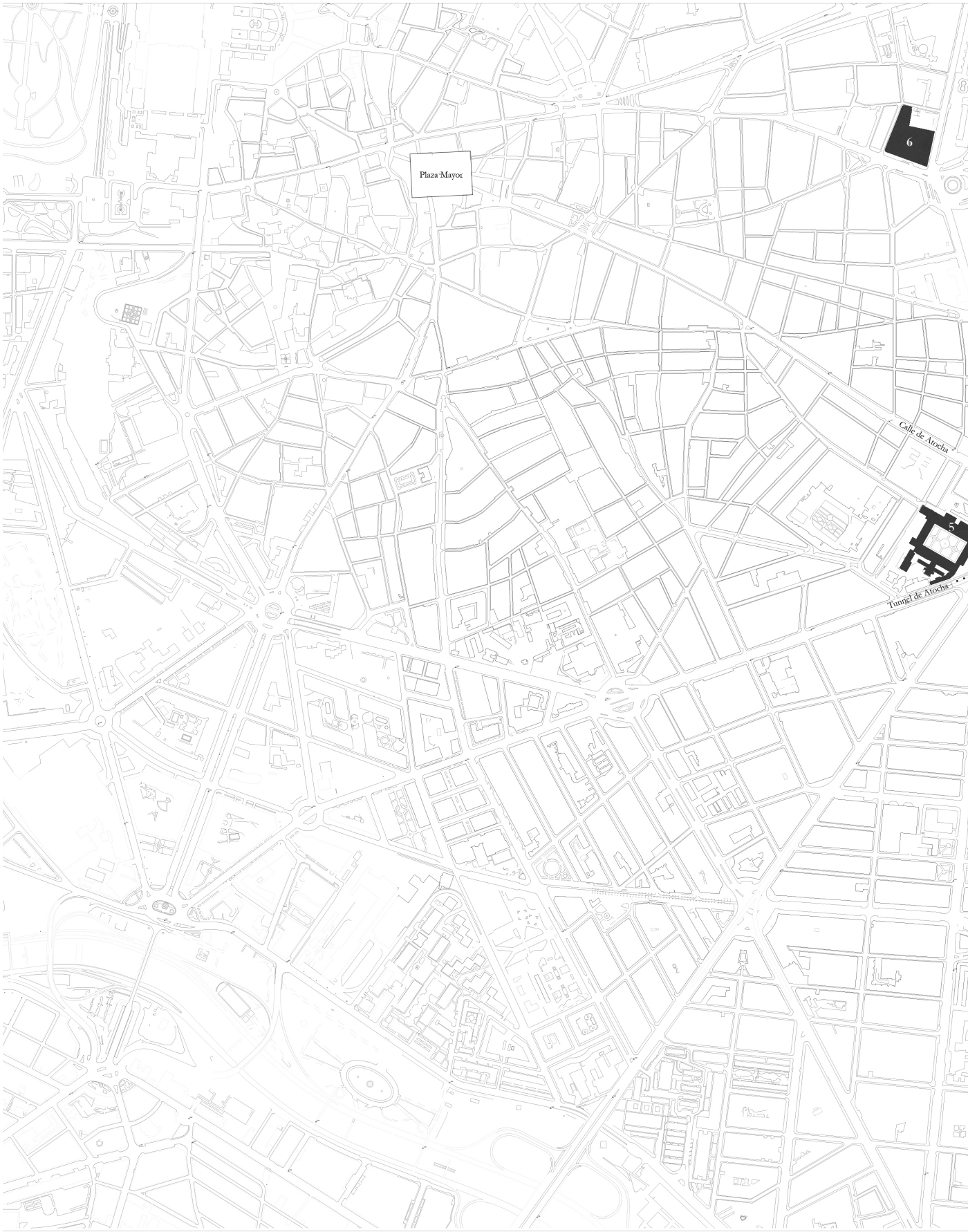
The development process starts with the demolition of a flyover in front of the historical station is followed by many improvements on different scales. Atocha Scalextric was demolished in 1985,17 years after its inauguration. In this way, the disappeared visual connection between the station and surrounding important buildings such as Hotel Mediodia and Museo Nacional Centro de Arte Reina Sofia could be established again. Also, the classical fountain appeared after the demolition of the flyover. Flyover also was a barrier to the directional relationship between Atocha Station and Plaza Mayor by breaking the uninterrupted circulation of Calle de Atocha. Through the demolition of the flyover, dialogue between the largest public space in Madrid and the busiest railway terminal was reestablished.

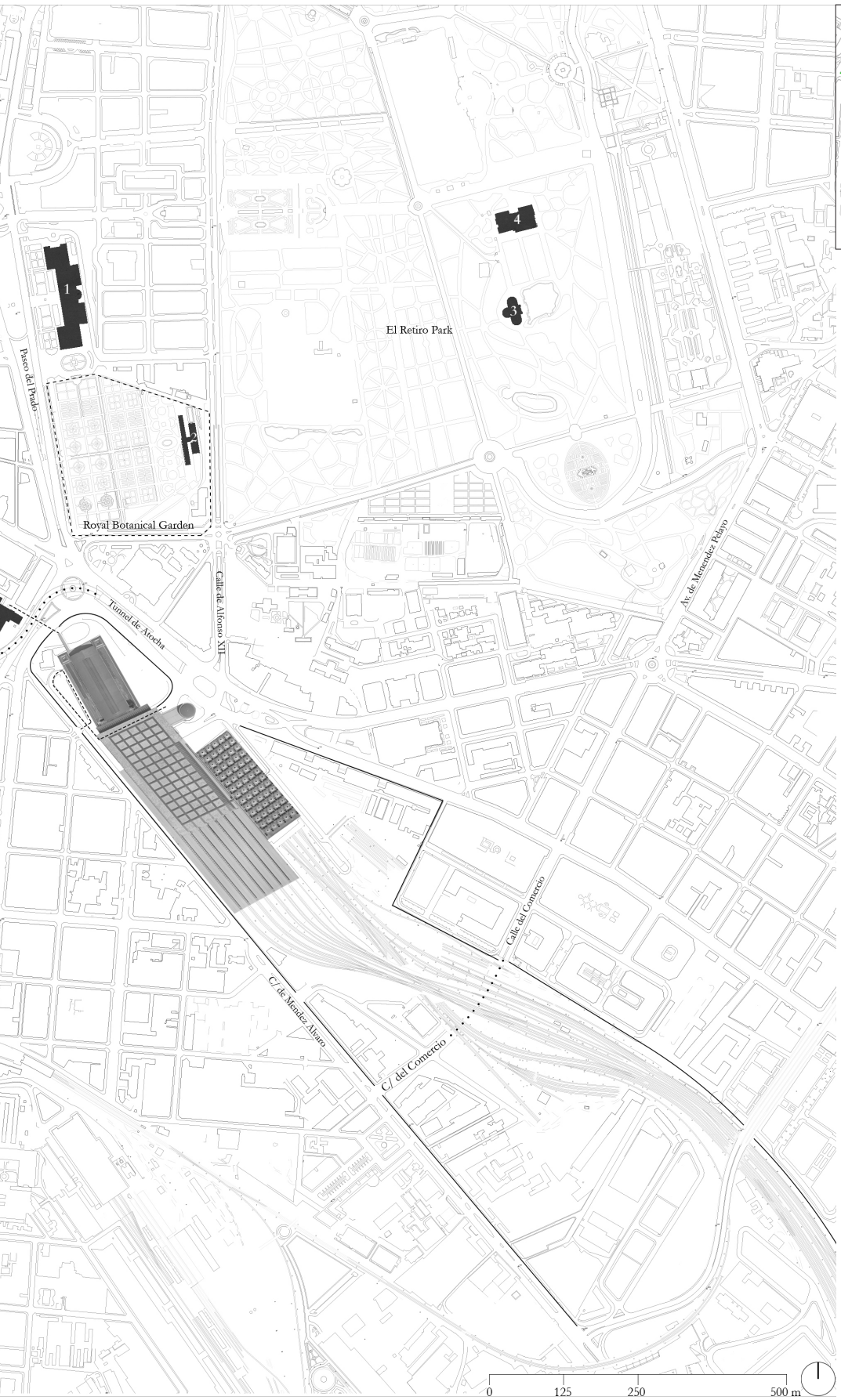
The layouts of the streets were clarified and traffic flow was restructured in order to avoid congestion, which directly impacts the level of pollution arising from cars. The construction of Tunnel Atocha was the first action to disburden the dense traffic on the streets and subterranean infrastructure in Ronda de Atocha was planned to facilitate traffic density coming from the south of the city. Therefore, the arrangement of the streets had an urban scale impact.

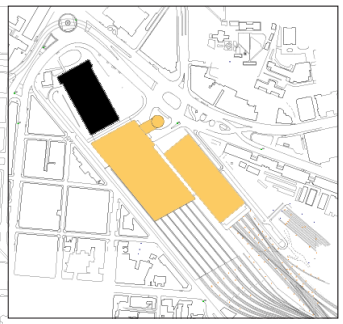
Another development in this period was the underground tunnel connection between Avinguda Menendez Pelayo and Carrer de Mendez Alvaro. Through this underground connection, the railroad barrier between the two neighborhoods was broken at one point. The construction of a new road extending Calle del Commercio broke the barrier effect of the railroad between two neighborhoods called Retiro and Arganzuela. Calle del Commercio is a strategic street in this region because road traffic enters the city mainly from Calle del Principe de Vergara and goes along Menendez Pelayo street continues as Calle del Commercio. The brick dome as the new gravity center of the station has direct access from Calle de Alfonso XII. Accessibility between Atocha station and neighborhoods was strengthened through these interventions.

Moneo produced the project in the context of "continuity" with the growth of the city. Since the city was growing toward the south, Moneo intended to maintain this growth in the Atocha project by making extensions rear of the original station. The map clearly illustrates the growth of Atocha from the north toward the south. New volumes such as the clock tower, brick dome, and terminal structures moved the gravity center of the whole complex toward the southeast. This action was meaningful because the city's gravity center also moved south from Plaza Mayor throughout the impact of the "Golden Triangle Art" that would be the new center in Madrid.

Fig.26 | Operation Atocha Project
(AIC,1992)


Plaza Mayor
6
Calle de Atocha
5
Tunnel de Atocha



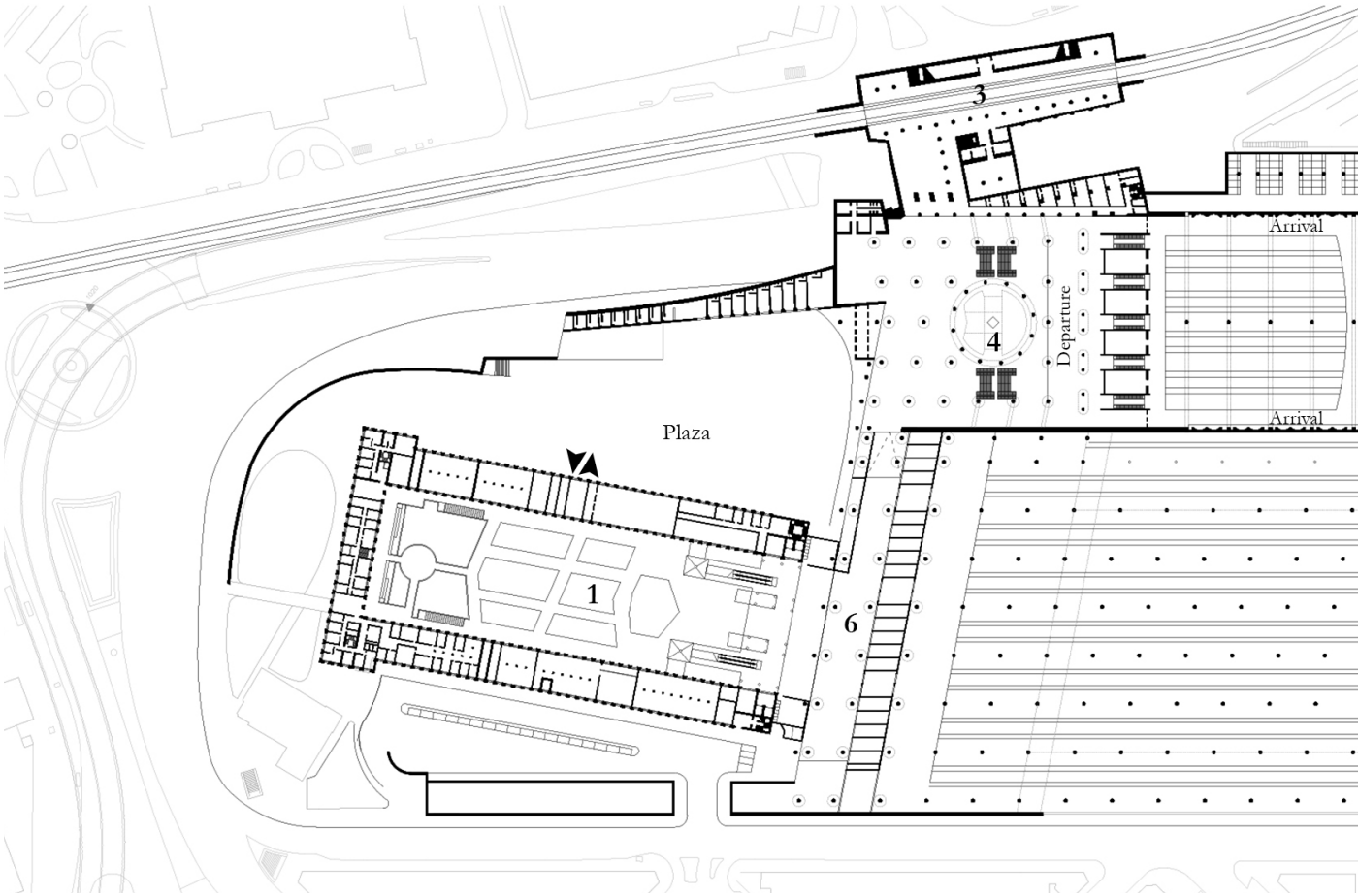


1. Prado Museum
2. Pabellon Villanueva
3. Crystal Palace
4. Palacio de Velazquez
5. Reina Sofia Museum
6. Thyssen-Bornemisza Museum

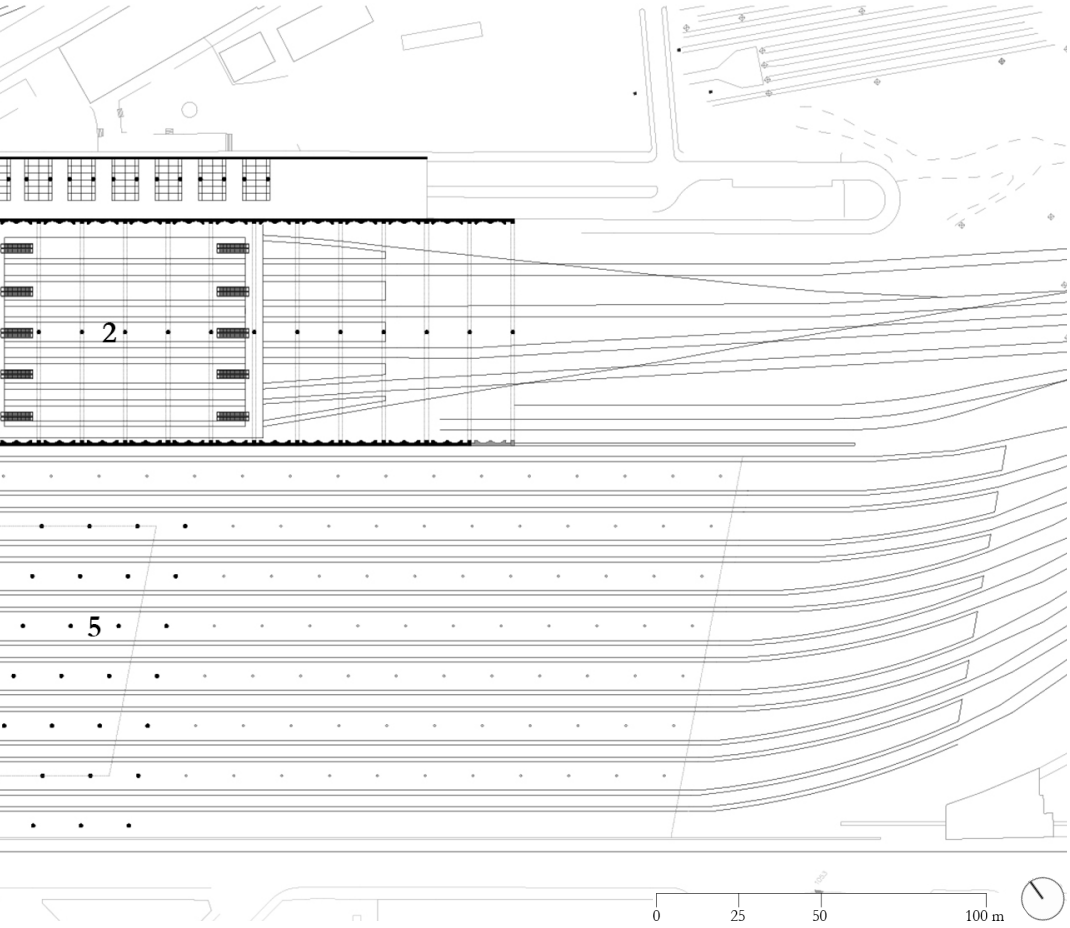
Wall-Fences
Connection w/St.
Tunnel Subway

1992

Fig.27 | Atocha Development,1992
(Drawn by Servi,2022)



The development project in Atocha station was carried out between 1988 and 1992 while interventions such as the construction of underground connections and demolition of the overpass, in the surrounding area already started. The growing population of Madrid increased transportation traffic and requirements for expansion of station capacity appeared in order to accommodate more trains and platforms. The replacement of local old trains with high-speed trains triggered the necessity for the enlargement process of the station since the historical station was not capable of accommodating these new trains. The original station was designed for commuter trains with short lengths and for infrequent railway traffic. The development project of Atocha was carried on by Rafael Moneo. The principal purpose of the project was to separate pedestrian traffic flows in the station, to build new space for medium and long-distance trains, and creation of new terminal for HS trains. A new terminal for Highspeed trains has been placed behind the historical station while the regional train station was placed next to the HS train terminal. Orientation of the new High-Speed terminal canopy followed two key orientations one of them was established by the old station while another was the orientation of Carrer de Mendez Alvaro. Furthermore, the lost relationship of the former station with the opposite adjacent street was established through the placement of the Cercanias terminal located on the same axis as the street. Restructuring the orientation of the canopy filled the physical gap arising from apart orientations of the old former station and the adjacent streets. After the intervention, the station both had a direct correlation with Plaza Mayor whereas its connection with adjacent streets has been established through the new HS terminal and Cercanias station. Issues related to the integration of Atocha Station into urban fabric were solved through these actions.



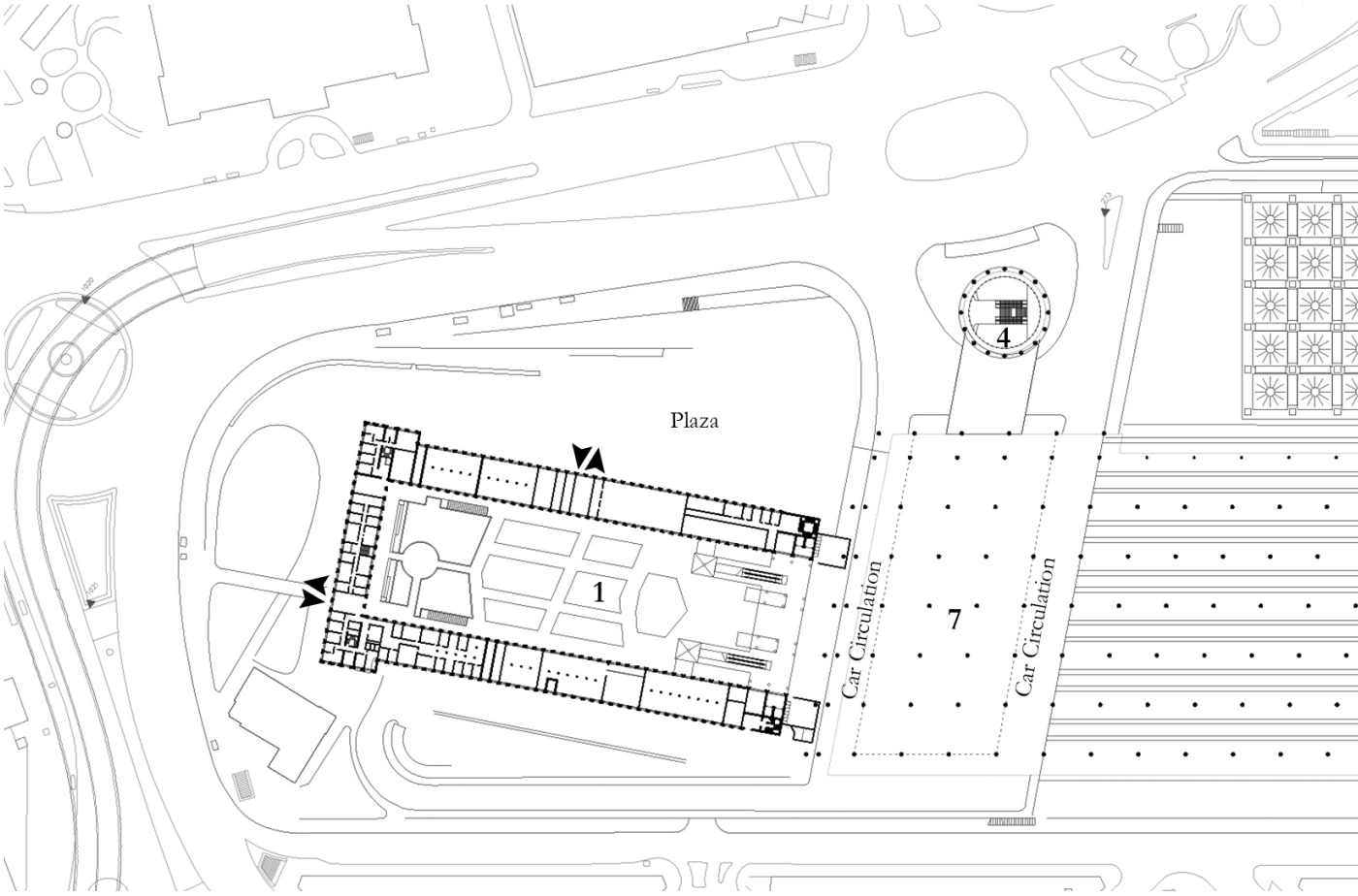
1. Original Station Atocha
2. Short-Medium Train Terminal (Cercanias)
3. Metro Station
4. Brick Dome
5. HS Train Terminal(Hypostyle)
6. Underground Connection
7. Parking
8. Low-Rise Canopy

1992

Fig.28 | Complex Plan, ,Under Street Level (Level +619) 1992
(Redrawn by Servi,2022)

The interventions also aimed to reduce transit time for passengers. Besides the construction of terminals for trains, a new metro station was constructed under the street and three types of railway transportation have been connected through underground passageways. Underground passageways were designed as commercial and retail streets in order to get rid of the banality and inconvenient atmosphere of underground circulation. Level differences between station and street led to the ground floor of the station as a connection-level between various transportation modes. People using different transportation modes would be able to use Atocha Station as a transfer center among other types of transportation modes. The historical station was used as a common place for departure and arrival passengers. Thus, the station became the first and last thing experienced in the city by passengers.

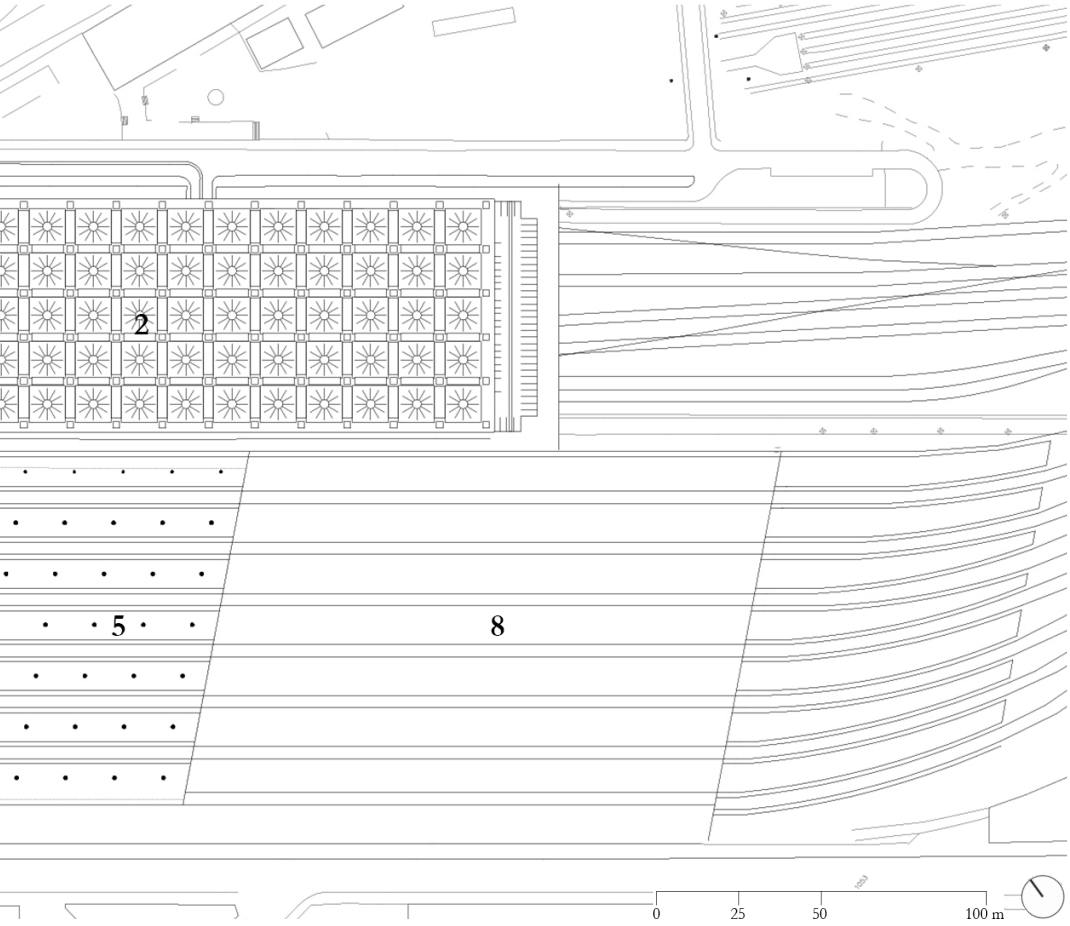
New pedestrian access from the north of the station was created, which also contributed to establishing a dialogue with Reina Sofia Museum. With this action, it was aimed to attract tourists, who visit the Reina Sofia Museum, through a directional pedestrian way. Due to topographical differences, the former station stood at a lower level than the street. Moneo created a bridge connecting the first floor of the station building with Plaza del Emperador Carlos V. In this way, he intended to provide a direct visual and physical connection between Reina Sofia Museum and Atocha. The creation of the bridge led passengers to enter the station from street level. Construction of ramp and stairs supported the prevention of uneven surfaces between Atocha and street level. The main problem behind the interaction of the station with its surroundings has been solved through the creation of the bridge. Furthermore, the sunken plaza of Atocha station is a clear demonstration of respect for level differences and the plaza emphasizes it. The purpose was to create a protected



plaza from car traffic and noise, also sunken plaza had a good opportunity to provide an open space for citizens. Circulation inside was provided by mechanical ramps and escalators. The connection between the historical station and the high-speed train terminal was established through a mechanical ramp connecting two levels. On the other hand, the connection between the vestibule of the cercanias station and the hall in the old station was produced under the ground (+619.3 level).

The creation of a circulation corridor, that connects two sides of the station complex, between old and new station buildings is one of the most important actions. It was intended to overcome the barrier effect of the railroad through the creation of two passageway connections between Ronda de Atocha and Carrer de Mendez Alvaro. Level differences between two opposite streets have been dealt with through a ramp created on the left side of the old station. While the station region was a separator between two streets before the intervention, it became a convergence point of these streets and most importantly in the urban structure. Despite its essential positive returns in terms of accessibility and continuity in the city, the use of a large area as a car parking area was not sustainable and human-centric approach. While the central part of the area was dedicated to parking, both sides are used for one-way circulation traffic flow. Therefore, this part turned into a roundabout for cars. Therefore, it creates an inconvenient atmosphere for pedestrian utilization through air and noise pollution and chaos.

Since cercanias station platforms are under the street level, its roof was conceived as a parking lot. A modulation that follows the geometry imposed by the railway plan can be seen in the platform



1. Original Station Atocha
2. Short-Medium Train Terminal (Cercanias)
3. Metro Station
4. Brick Dome
5. HS Train Terminal(Hypostyle)
6. Underground Connection
7. Parking
8. Low-Rise Canopy

1992

Fig.29 | Complex Plan, (Level +628) 1992
(Redrawn by Servi,2022)

coverings of suburban station structures. That form of roof makes skylights, which are embedded regularly in parking plots, functional elements that provide good lighting and ventilation in underground spaces, which turns dark spaces into a convenient and satisfying atmosphere. Furthermore, cap-shaped protections made of aluminum provide shading for cars. There are five platforms each one with 7-meter in width[56]. The connection of Cercanias station with the metro station, bus station, and HS train terminal are essential for the proper use by passengers. People are able to access platforms through escalators. Departure and arrival circulation in Cercanias station has been separated in order to avoid congestion. While departure passengers reach trains through entrances located on the platform head, the traffic flow of arrival passengers has been managed through corridors on the edge. There are two bridges connecting these corridors, so arrival passengers easily evacuate the station without encountering departure pedestrian traffic. The brick dome which situates in the gravity center of the complex is also the intersection point of metro lines. It has been designed as a transfer center for various transportation modes. The circular dome appears as a testimony of the complicated planning that is produced below the street level. Its circular shape both defines it as a meeting point of transportation and enables the underground spaces to benefit from natural sunlight and ventilation.

The new elements and structures were conceived in order to establish a dialogue with the city. The new canopy through its transparency and lightness qualities allows contact lines of vision with

56 Luis Fernández-Galiano , "Sobre las Vías Oblicuas:Ampliación de la Estación de Atocha " *Arquitectura Viva Monographies*,no:36, 1992, 42.

the city. Through glass curtain walls on both sides of hypostyle, station and city are able to merge visually and materially. Hypostyle hall which is High-Speed train terminal, consisted of eight platforms each one with 10-meter in width[57]. The roof of the terminal followed the dimensions of the platforms and trucks. The roof spans 250 meters in length and 120 meters in width.
Through the management of pedestrian flow inside the commuter station, it was avoided the congestion and inconvenient atmosphere, which is crucial for maintaining enjoyable feelings in different parts of the complex. Penetration of sunlight into underground spaces also prevents uncomfortable waiting times for trains. "Nodes" in the complex have been designed as "non-place" that travelers just pass by. However, the underground connection between three railroad transportation modes, which are commuter trains, highspeed trains, and metro, provides a mutual relationship between the "non-place" characteristics of nodes and the "place" characteristic of the old station. In that way, users could easily access to enjoyable public space atmosphere of the old station.

The only drawback was the car dominancy in the new space created between the old station and the high-speed train terminal. Constant car circulation weakens the convergence between the old and new terminals on the street level. These all interventions broke the barrier effect of the station complex and emphasized the place character of the former station by separating, but not completely, the node quality physically toward the back.

3.3.1. Continuity

Rafael Moneo's project was beyond a mere physical extension project, it became an urban scale project rather than a regional station development project. Although it has been made several various proposals for the development of the station complex, the proposal of Moneo was outstanding among others. The project would be realized in two phases. Stage I has been completed in 1992 after 4 years of construction of a new terminal for HS trains and a new space for medium-long distance trains. On the other hand, the second expansion project has been carried out since 2010 and it is planned to complete in 2023.
Moneo claimed that " architectural continuity " was the product of human interaction with the constructed world, and this continuity recognized the past as well as anticipation of the future[58]. The enlargement project of Atocha was conceived in the framework of "architectural continuity". For Moneo, that project reflects and coincides with the identity of the city was one of the most important bases. Thus, interventions in the Atocha project interpreted the characteristics of a city with identical aspects like Madrid.

"The form of a city, like that of a cloud, is in continuous movement. Its actual form, in a precise instant, comes from the previous one. The materiality of a city testifies to the action of a mechanism that enables continuity to emerge in constructed form."[56]

The Atocha station project illustrates the intention to work from the solidity of knowledge, and continuousness with existing urban structure, enriching its identity and bolstering its history. Instead of appealing to new design tools in the Atocha project, Moneo benefited from typical architecture tools such as size, proportion, scale, and material, which reflected his insistencies on its physical and tactile condition. Also, he asserted "when we emphasize the tactile condition of

57 Luis Fernández-Galiano , "Sobre las Vías Oblicuas:Ampliación de la Estación de Atocha " *Arquitectura Viva Monographies*, no:36, 1992, 43.

58 Rafael Moneo. Against Indifference, *Anyway Conference*, Barcelona, 1993. Published in: Moneo, R. 1995. Contra la indiferencia como Norma 14-28.

materials, the value of color and the effect of light in architecture, we are establishing a basic community of features that allows us to examine the continuity in architecture throughout time"[59]. The main strategy in the Atocha project consisted of "embracing" and "encompassing" the historical station building through a series of new volume. Rather than just a visual symbol of the past, it became a renovated gateway for the city, and the head of the organization got an important role in the urban growth of Madrid. Therefore, the extension project of Atocha was not only a "physical extension and enlargement process".

Continuity was implemented in the Atocha project through the erection of new volumes as continuous with the old, vaulted station, but the new extension was visually and programmatically independent from the former station. Although old and new stations do not speak the same language in terms of time and forms, they had common points in terms of materiality and universal concern for an architecture. In the design of the former station, Alberto de Palacio's vaulted industrial structure was the most innovative construction in that period and the design reflected the industrial innovation through a vaulted steel roof. Moneo, instead of replication of existing structures and techniques used in the 19th century, manipulated primary forms of the historical station building and absorbed them into the new organism that could define the growth of a dynamic city. He preserved its essence and interpreted the industrial architecture of railroad architecture in a contemporary way. The enormous metal canopy structure that covers the high-speed railway terminal reflects the meaning of the great industrial vault of the historical station. Palacio's vault was a symbol of breakthrough techniques and possibilities of iron architecture in the 19th century. Moneo managed to establish a dialogue between old and new by resorting to a universal theme; the challenge of covering a large space with a large forest of columns, instead of evoking a historical vault. The gigantic metal roof is supported by a series of steel columns. The steel canopy precisely emphasizes how architects work with steel in today's world. The notion of Moneo for the realization of architectural continuity emerged in Atocha through the placement of singular elements, search for monumentalism, and symbolism and meanings of these volumes.

Atocha project was manifested as an illusion of a series of vernacular ensembles which are consisted of the brick dome (the circular volume) as "baptistery" connotation, the clock tower as "campanile" connotation, and the old station as a "basilica"[60]. Moreover, the creation of a sunken forum around the station is another manifestation of the vernacular ensemble. Moneo's intention to create connotation with the past through classical architectural elements demonstrates that architectural heritage gives pleasure. Moreover, the alien atmosphere of industrial architecture of the former station has been transformed into a familiar place with these interventions. All forms that connotate the classical forms have been implemented around the historical station building. Two additional elements, which are the clock tower and circular volume, were placed near the historical building. In this way, the "place" characteristic of the 19th century was emphasized while the train terminal was identified as a "non-place". Besides its ecclesiastical meaning, the circular volume has a very essential function and it locates at a very strategic point in the transportation hub. The brick dome, which appears on the linking point of all local lines, identifies and gives access to Cercanias station. Furthermore, the metro station has integration with other lines. Atocha project displayed the sympathies of Moneo tacitly with the ancient vernacular ensembles that have an incontrovertible function in urban growth, which is performed by transportation centers. Brick dome and clock

59 Rafael Moneo. The City as an Open Game. Architectural Continuity: The Atocha Station. En C. Davidson, *Anyway Conference* (New York: Anyway Corporation, Rizzoli, 1994).

60 Luis Fernández-Galiano , "Sobre las Vías Oblicuas:Ampliación de la Estación de Atocha " *Arquitectura Viva Monographies*,no:36, 1992, 42-43.

Fig.30 | Brick Dome,"Baptistery"
(Arquitectura Viva Monography,1992)

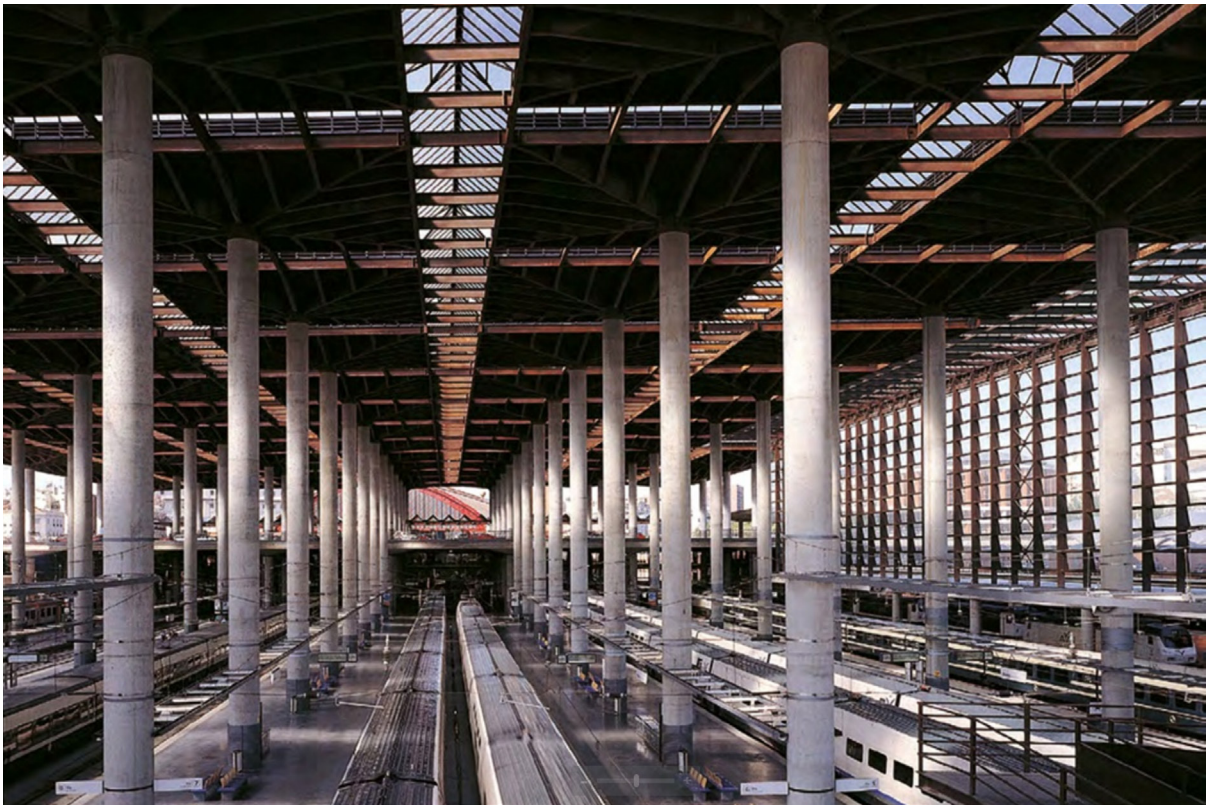


Fig.31 | HS Terminal,"Hypostyle Hall"
(El Croquis ,2004)

Fig.32 | Brick Dome Interior
(Rafael Moneo Arquitecto)

Fig.33 | Clock Tower ,"Campanile" and Plaza ," Forum"
(Arquitectura Viva Mongraphy,1992)

tower are the milestones that help to establish a new epicenter. Whereas the clock tower acts as a visual reference and a guide for travelers, the brick dome provides light into interior spaces, which creates a serene and bright atmosphere inside this transfer point.

However, Moneo used this communicative function implicitly and subtly. He did not explicitly emphasize the vernacular forms in terms of form and material compare to 19th-century railway stations that imitated the classical forms and plan typologies. Moneo's continuity conception is clearly recognizable as materiality. As he used industrial materials in the design of railroad canopies, vernacular ensembles were designed with brick. This contradiction in terms of materiality also defines the "place" and "non-place" characteristics of new additions. While contemporary canopy structures connotate the modern industrial part of stations, the brick material, which is the material of former station, of classical forms such as clock tower and circular volume coincides with the intention to make reference to the past. Compared to the implicit use of Moneo, architecture as a communicative element, Jencks and Baird explained the communicative capacity of architecture through figures that transfer viewers' ideas or images without linking with the program. A similar approach could be recognizable in the definitions of Robert Venturi; superimposing a curtain (decorated shed) as an advertisement of what a building is[61]. While Venturi's use of architectural forms as a communicative element with people was direct, Moneo followed an attitude that makes connotations without speaking forms directly.

Moneo's concern for architectural continuity has been established through "physical", "historical", and "cultural" continuities with architecture and forms. In the Atocha project, Moneo provided "physical" continuity through a metal canopy extension behind the former station. The layout of the steel canopy respected two key orientations: the one established by the head of the old station, the other, the direction of the track bundle, and the adjacent street. The location and form of

61 Robert Venturi, Steven Izenour, Denise Scott Brown, *Learning from Las Vegas*, (Cambridge: MIT Press, 1977), 87- 90

the steel canopy, as an extension of the historical station, respect both the station's and adjacent street's orientation. This steel canopy, in that way, behaves like a physical connector between the station and the urban structure since the station could not establish a relationship with the urban structure due to its anomalous orientation to the urban plan. On the other hand, the brick dome with its circular shape creates a physical connection under the ground through passageways between transportation terminals and the old station.

Through exponent demonstration, the use of the steel and brick material in the most innovative way could be evaluated as a "historical" continuity of the use of innovative construction methods such as the steel vaults of the old station and the giant canopy of the new extension. The monumental façade design of the circular dome and the use of brick material for the columns are other evidence of the "historical " continuity between old and new through the adoption of similar design principles and the use of the same material. Alberto Palacio designed the central part of the Atocha Station as a monumental façade with a central industrial design and small twin towers on the edges. Therefore, both Palacio's and Moneo's linking the "entrance" with monumentality are very similar to each other, which creates continuity in terms of history. The sympathy of Moneo in vernacular ensembles and its use of symbolic elements in the Atocha complex is an obvious indication of "cultural" continuity between past and present. The clock tower and brick dome support the cultural continuity of the complex with their symbolic existence. Since the clock as a symbolic element in the railway stations is the most descriptive element that complements the character of the station building, it clearly emphasizes the function of the building and also the almost central location of the tower connects the old and new stations visually. Another important detail behind the insistence of Moneo on providing continuity in Atocha was that he defended the identity and history of the city and buildings with their character, as opposed to the globalization statement in architecture asserted by Rem Koolhaas. Therefore, the Atocha project became prominent with its own identity and character. Station through materials and forms achieved to be part of urban structure in Madrid. From various aspects, there exists a continuity between old and new stations.

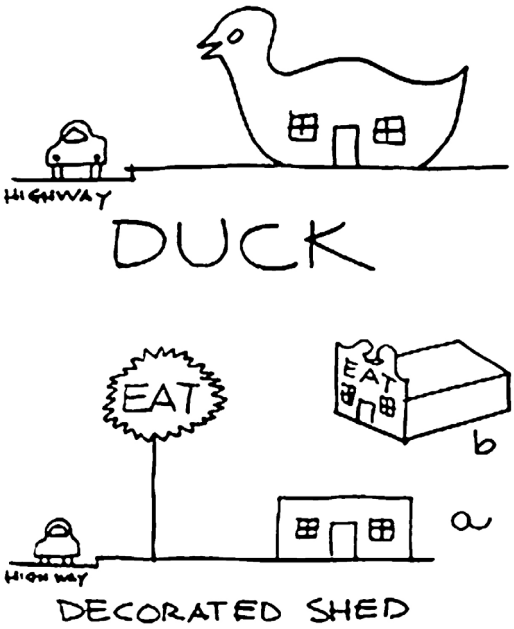


Fig.34 | Duck & Decorated Shed
(Venturi,1972)

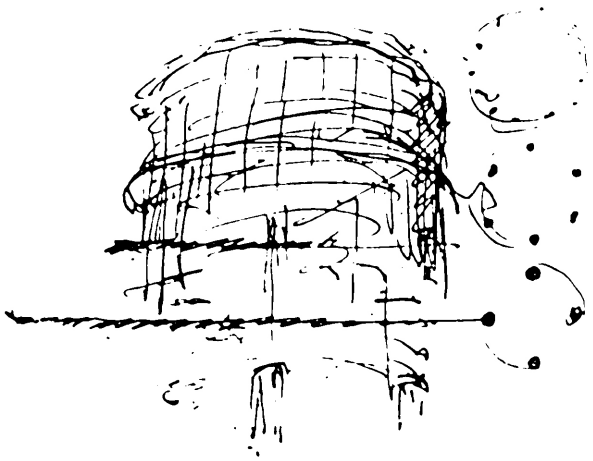


Fig.35 | Brick Dome Preliminary Sketch
(Arquitectura,1988)

3.3.2. Interaction with Cultural Venues Through "Garden"

The enlargement project of Atocha originally consisted of the integration of new volumes to the station complex areas in order to facilitate transportation and pedestrian traffic flow and to transform it into a transportation center, which led to the 19th-century station gaining "place" identity. The transformation of the former station into a tropical garden was not a part of the initial project. Later idea of the tropical garden inside the former station was included in the project after a decisive meeting between the Ministry of Public Works and Transport and the Director of the Royal Botanical Garden of Madrid[62]. Existing implementations such as Palm House in Kew Gardens and Estufa Fria in Lisbon affected their decisions. This action also maintains the identity of the former station, which creates "historical" continuity. Until the intervention project, there exists a garden in front of the original station building. The Tropical Garden in Atocha railway station became a space assuming a significant role as an access threshold to the new station and trains. Although it was not an initial purpose, the movement of the old garden in front of the former station inside the station as a tropical garden could be evaluated as "historical" and "physical" continuity. Transformation of interior space into the tropical garden is not mere action of movement of the old garden to the inside of the station, it has a very strong past connection. The design of Estacion de Mediodia (Atocha) and the Crystal Palace in El Retiro Park in Madrid resembles each other in terms of industrial architecture. Alberto de Palacio and Ricardo Velázquez Bosco worked together in the construction of Crystal Palace and Palace of Velázquez in El Retiro Park. It is recognizable the use of similar techniques and materials for both designs of this temporary venue and palace, and the roof of the station while the Palace of Velázquez connotates the entrance of Atocha Station through the combination of the vernacular brick wall-industrial roof.

Crystal Palace and Palace of Velázquez rise up from the middle of the green landscape which is abundant with plants and trees, on the other hand, in the case of Atocha, the tropical garden grows up under the industrial roof of the station. From that point, there is an explicit opposite correlation between Crystal Palace in Retiro Park and the tropical garden inside Atocha station. While in one situation, the garden is inside the industrial architecture, in another case, industrial architecture is inside the garden. The implicit and subtle relationship between the park and station, thus, is vital in order to not detach the joyful public space inside the station completely from the surrounding reality of the city. When passengers enter the station building, the first thing they will recognize is the tropical garden rising up in the middle of the historical building. The jungle creates a tropical atmosphere that would reveal excitement and enthusiasm in the mind. Its strong connection with the surroundings, but without any obvious reference, and urban structure outside of the station prevents turning this place into an alien and unrecognizable public space, which is important for the appropriateness of the place by people in order to be used efficiently. The placement of a tropical garden keeps the station as a part of the urban structure whereas it creates an unforeseeable atmosphere. As stated in previous chapters, history, identity, and relation entities are met with the placement of a tropical garden inside the station.

Although the station itself does not have a cultural program or is not used as a cultural venue, the station is encircled by a series of cultural venues. One of them is Pabellón Villanueva located in the Royal Botanical Garden where the implementation of the tropical garden inside the station was inspired. Pabellón Villanueva is used as an art venue for various exhibitions, visitors reach

62 Borja Aróstegui Chapa, "La transformación de las grandes estaciones europeas con la llegada de la Alta Velocidad. El caso de Atocha" (PhD diss., E.T.S. Arquitectura (UPM), 2015), 186

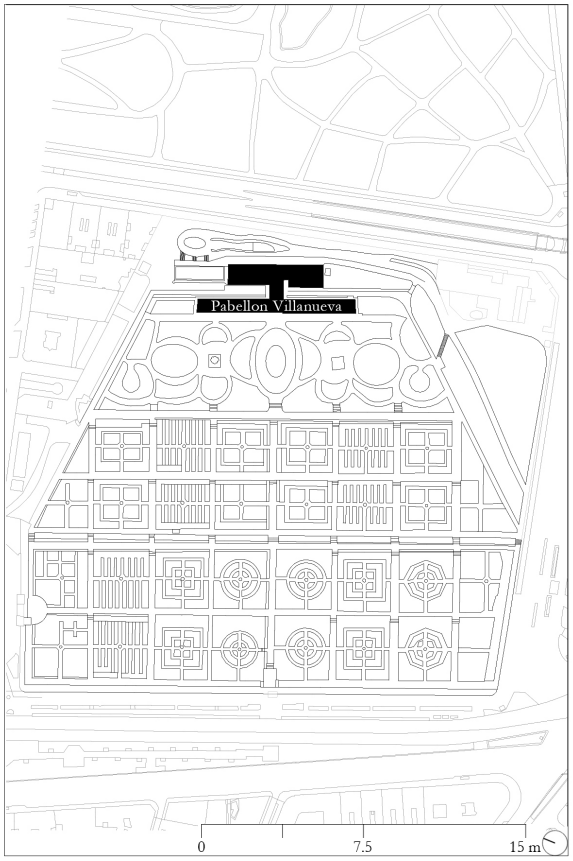


Fig.36 | Royal Botanical Garden Plan
(Drawn by Servi,2022)

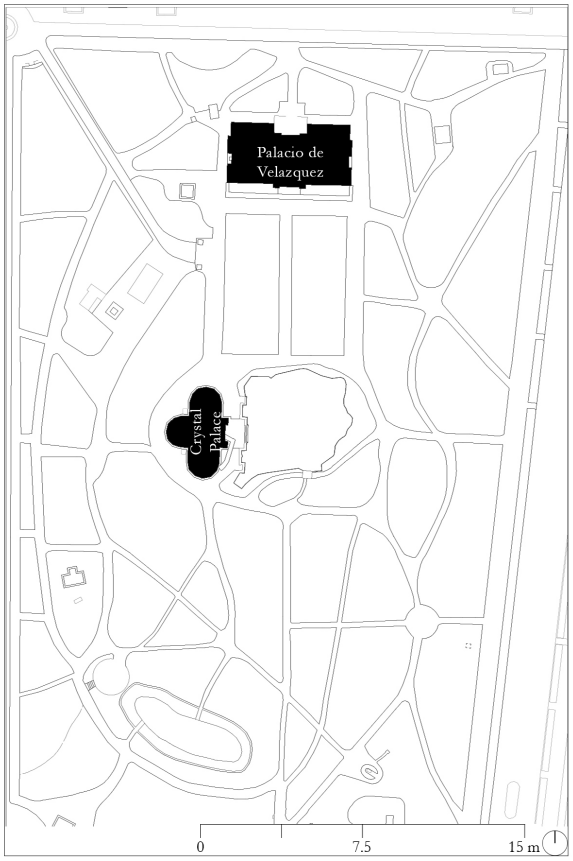


Fig.37 | El Retiro Park Plan
(Drawn by Servi,2022)

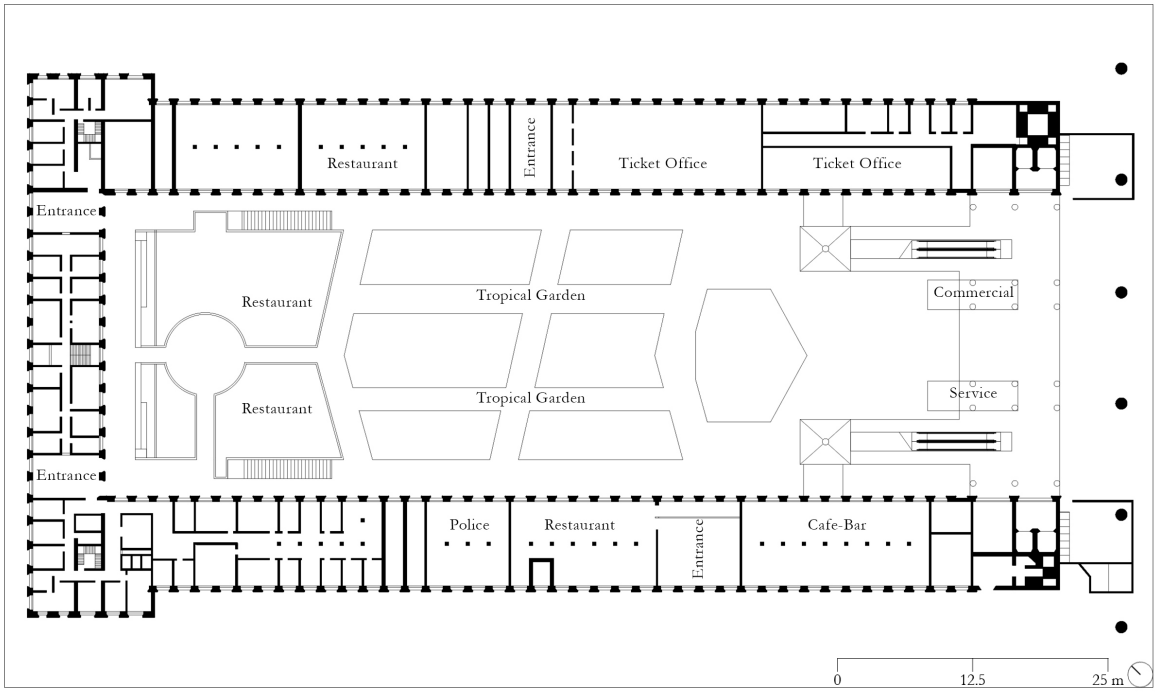


Fig.38 | Atocha Former Station Plan
(Redrawn by Servi,2022)

Fig.39 | Tropical Garden & Crystal Palace Collage
(Servi,2022)

there by crossing a very immense botanical garden. On the other hand, in Retiro Park, the Crystal Palace hosts various art exhibitions as an extension of the Reina Sofia Museum. The relationship of Atocha Station with cultural venues both in Royal Botanical Garden and El Retiro Park through the common entity which is "garden" is recognizable.

The dialogue between the station and Pabellón Villanueva was also strengthened through the addition of the circular dome in the station complex. The brick dome has two-layered façades, one is a glazed curtain wall and another is monumental columns that encircle the building. A similar design exists in Pabellón Villanueva. The glazed curtain wall façade on both sides of the central entrance situates behind the classical stone columns, which gives to building a monumental appearance. Moreover, Palacio de Velazquez accommodates modern art exhibitions and work as a cultural venue. It is essential to note that Alberto de Palacio was a collaborator of the team designing and constructing Palacio de Velazquez. Very similar to Atocha Station, the industrial roof covers the historical building. The entrance design of Palacio de Velazquez reminds the two-sided towers and central arched roof of Atocha Station.

Therefore, Atocha Railway Station has very strong connections with its surrounding venues, and people visiting the station and surrounding facilities could establish a dialogue between the art venues and gardens. Surrounding reality impacted the interior function of the station. Also, collage work illustrates the two opposite situations of Crystal Palace and Tropical Garden.

3.3.3 "Unfinished" Development,2010-2023

"The city is the only truly unfinished text"[63].

As Moneo described the city as unfinished text, the growth of Atocha station continued toward the south through additions of new canopies and connections. The bridge that was constructed in the 1992 development phase connected the first floor of the station with Plaza del Emperador Carlos V, and it was dismantled and the direct physical connection between the museum and the station disappeared. However, the removal of the bridge also opened a new opportunity for the use of the main façade as an entrance by passengers. Before the demolition of the bridge, the main façade was not beyond a decorative element because the ground floor of the station was not utilized as an entrance and exit. Moreover, level differences between the street and station have been dealt with through the creation of a new ramp leading passengers towards the entrance. The removal of trees and plants in front of the station building uncovered the concealed monumental façade. Therefore, as aimed in the first design by Alberto de Palacio, a monumental façade started to behave as an attractive sign element for citizens, which provided "historical" continuity. Also disappeared connection between the front and sides of the original building has been established after the intervention. People now are able to encircle the building without encountering any barrier element. Now the station has four entrances from surrounding neighborhoods with help of its U-shaped typology. The U-shaped typology of the station as stated in previous chapters is the most convenient type for the interaction of the station building with its surroundings, so the impact of station plan typology is clear through new connections of the station.

The most outstanding development between the station and the city is that the barrier effect of railroads seems to disappear in some sections through urbanization projects around the complex and the construction of new passageways and bridges. Railroad occupies less land compared to the 1992 development project, and industrial buildings such as warehouses, factories, and docks have been displaced by new housing buildings and public spaces. The impact of the removal of the industrial character of the station region is recognizable around Calle del Commercio and the integration of housing buildings around the complex gives this place a more familiar atmosphere. With the growth of the station complex, the gravity center of the complex moved south of the brick dome, and which location of the new arrival terminal coincides with the gravity center.

A new arrival terminal was constructed in front of the commuter station in order to facilitate and manage pedestrian traffic flow inside the station. The arrivals lobby is located at the end of arrival moving walkaway, and it provides accessibility to the commuter train station as well as the parking area from its ground floor. The roof of the lobby was designed as modulated triangle deck in order to maintain the industrial character of the railroad station land, but also the triangle deck roof of the new lobby defines the structure as a building, as a place. Through the combination of skylights, the interior has a bright atmosphere that creates a pleasant experience for passengers. As Moneo stated, the work respected what has already been done in the first implementation, by maintaining similar lines and materials[64]. Therefore, principal materials became steel, aluminum, and glass. However, new structures break the connection with the past through their white colors. In this way, the white color, as a reflection of the new, marks the difference from previous struc-

63 Fernando Marquez Cecilia, Richard Levene, "*Rafael Moneo 1967-2004: The Solutide of Buildings*" El Croquis , 2004 ,645

64 Rafael Moneo, "Moneo Reinventa Atocha Otra Vez" interview by El Pais Daily, *El Pais*, December 13, 2010, https://elpais.com/diario/2010/12/13/madrid/1292243055_850215.html

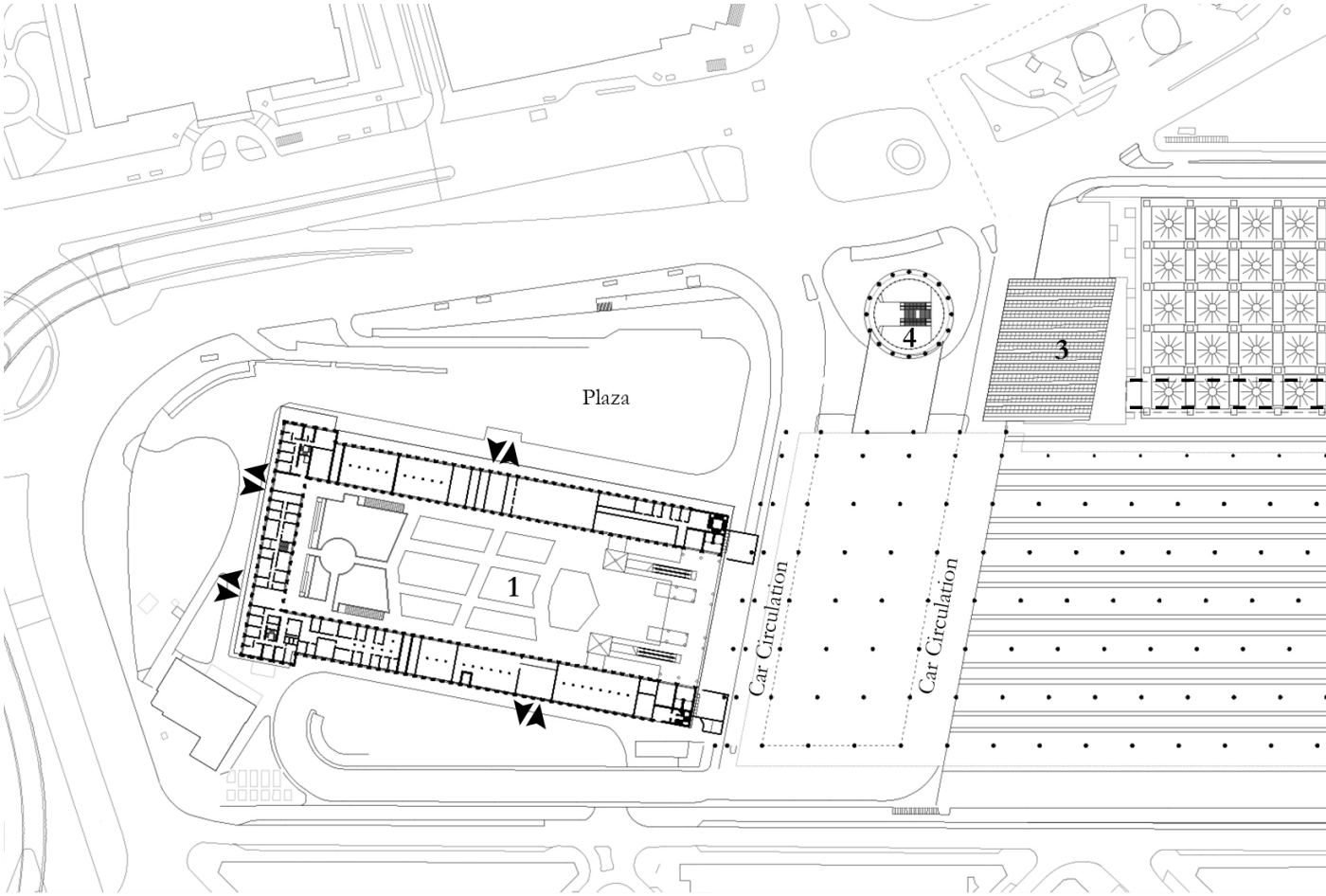

Plaza Mayor
6
Calle de Atocha
5
Tunnel de Atocha

1. Prado Museum
2. Pabellon Villanueva
3. Crystal Palace
4. Palacio de Velazquez
5. Reina Sofia Museum
6. Thyssen-Bornemisza Museum

Wall-Fences
Connection w/St.
Tunnel Subway

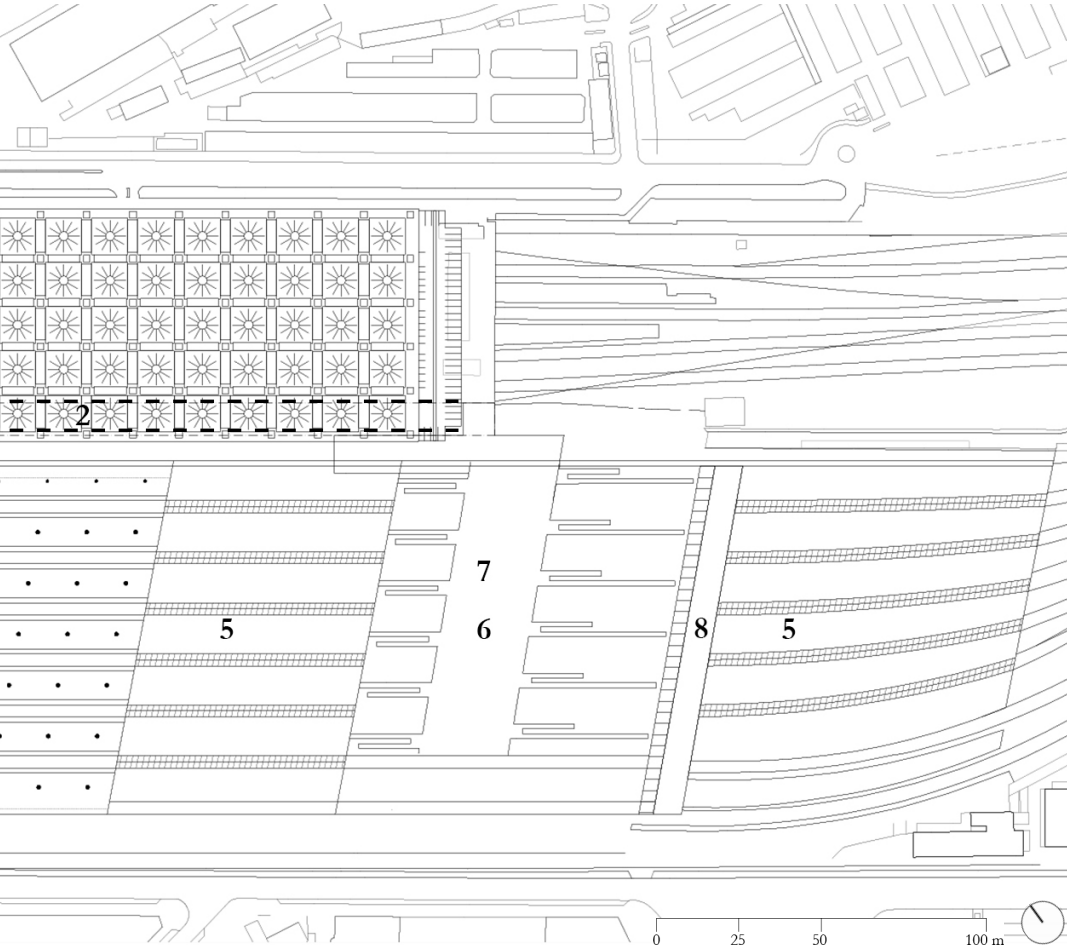
2022

Fig.40 | Unfinished Development Plan
(Drawn by Servi,2022)



tures. The use of white color also could be seen in the design of a new high-rise canopy covering the arrivals footbridge. The high-rise canopy is lower than the hypostyle hall and higher than low-rise canopies. Role canopy in the station complex has been emphasized through its elevation. While the hypostyle hall continues to be the most dominant and significant piece of the transportation system in a complex, high-rise canopy covering the arrival footbridge is differentiated from low-rise canopies. Shell appearance steel roof of the high-rise canopy makes it distinct from the rest of the canopies. It is essential to note that two bridges cross the railroad in a high-speed train terminal in the whole complex locate under the shell appeared roof. In that way, its function is distinguished from other canopies. The connection between the arrival footbridge and platforms is provided through mechanical ramps. Glass-aluminum combination of the high-rise canopy enables the sunlight to penetrate into the footbridge and platforms beneath the canopy. Since windows face toward north it is avoided direct sunlight penetration while roof also allows to bright and cool atmosphere during even summer, which creates convenient experience for arrival users at first sight.

The arrivals footbridge is connected with a moving walkaway located under the vaulted aluminum roofs. Hence, arrival passengers from the high-speed train terminal could easily leave the station with less effort. In this way, it is prevented congestion inside terminals. Although the new passageway has a long distance between the bridge and lobby, the use of a moving walkaway accelerates the movement of passengers. The vaulted ceiling which is used for covering parking lots has been painted with white color in order to demonstrate its newness and differentiate it from the rest of other vaults. Also, both sides of the passageway are covered with glass, which makes the brightest



1. Original Station Atocha
2. Moving Walkaway
3. Arrival Terminal
4. Brick Dome
5. Low-Rise Canopy
6. High-Rise Canopy
7. Arrivals Footbridge
8. M.Alvaro Footbridge

2022

Fig.41 | Complex Plan, (Level +628)
(Redrawn by Servi,2022)

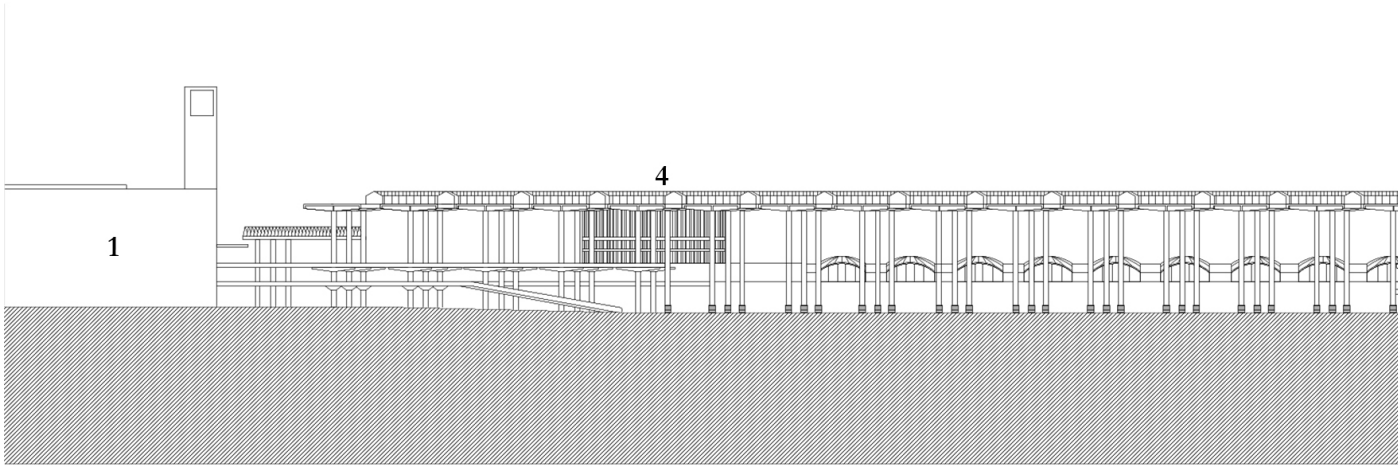
interior space under the ground. That part of the project has a cinematic appearance[64] under the stars. Accelerated movement through moving walkaway prevents the static and boring appearance of the ceiling, which could enjoy people.Another outstanding development is the construction of the Alvaro Mendez footbridge that connects two sides of the station complex, which breaks the barrier impact of the railroads. Two neighborhoods will converge through this bridge. Compare to the first connection space which is dedicated to vehicles, the new footbridge is a human-centric passageway protected from the noise of trains with walls.

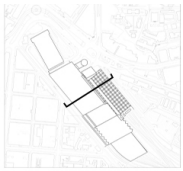
The breaking of the past through color is a continuous action. The city has been growing up from north to south, so the station continues to expand towards the south like city growth. While the old town in Madrid is located on the north part of the urban structure, the south part has consisted of new modern settlements. A similar situation exists in the station complex. The former station acts as the head of the whole complex whereas new contemporary structures became an extension of the historical station building. This conception has been clarified by painting the new canopies in white color. As well as there is a physical continuity and development, that continuity and differentiation between old and new are demonstrated with the material. While the former station is the oldest part of the complex, the hypostyle canopy and commuter station were later constructed. The latest structures appear with their clean and white skins.

Developments in the station region will continue, and it is planned to start phase 2 in the project that will include new improvements. First of all, it is planned to be built plaza on a region now occupied by car parking and industrial facilities. Social inclusion would be promoted in this way

and this place will become a convergence point between station and neighborhoods. Moreover, the complex will be reached through the north entrance of the historical station, and it is planned to increase pedestrian accessibility. A new public plaza will be connected with the existing footbridge connecting Mendez Alvaro street and the station complex. Arganzuela neighborhood will have access to new public space. Therefore, the new plaza will serve both neighborhoods in the area, and the barrier effect of the railroad would be displaced. With the extension of the railway station, the gravity center of the complex moved towards the south, and the new gravity center of the complex completely coincides with the location of the new public plaza. It is planned to move arrival terminals in front of the new civic plaza in the future. In this way, departure and arrival circulation will be separated. Furthermore underground passageway on the side of Alvaro Mendez street is planned. The capacity of the station will almost double with these planned interventions and it is planned to increase the number of travelers from 16 million to 30 million per year until 2025. In the third phase, a new underground car parking area will be constructed and a new arrival hall that is planned to be built on the south of the complex would be dedicated to arriving passengers. Hence, pedestrian traffic will be facilitated. The most outstanding intervention is the construction of a "bypass tunnel" under Alvaro Mendez street. The underground tunnel will link the rail lines of the Spanish northwest (Barcelona) not only with the Atocha roads but also with Chamartin.

Role of the historical station in growing pedestrian circulation and railway traffic of the complex will be enhanced by using the monumental façade of old station as main entrance for the whole complex. As a result, intensity and diversity will be enhanced, which is essential for the proper use of the historical station as an enjoyable public space.





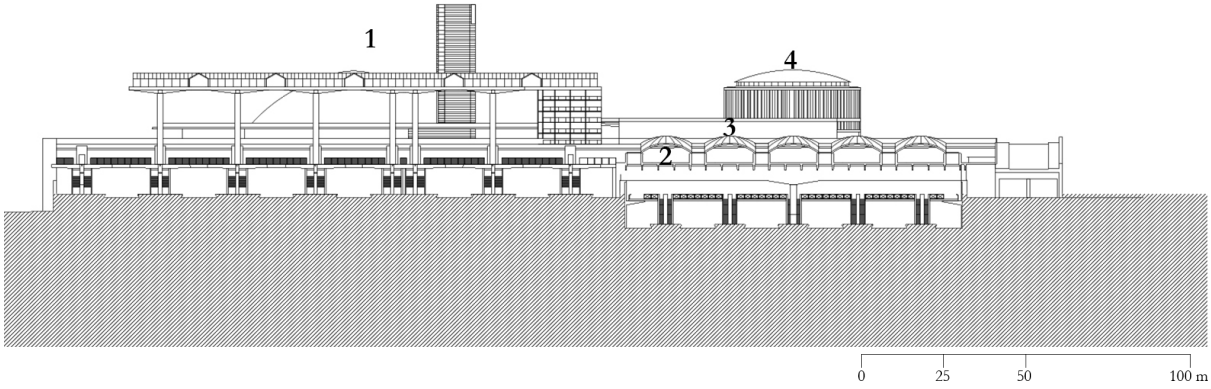
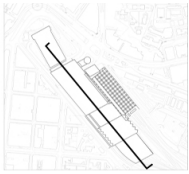
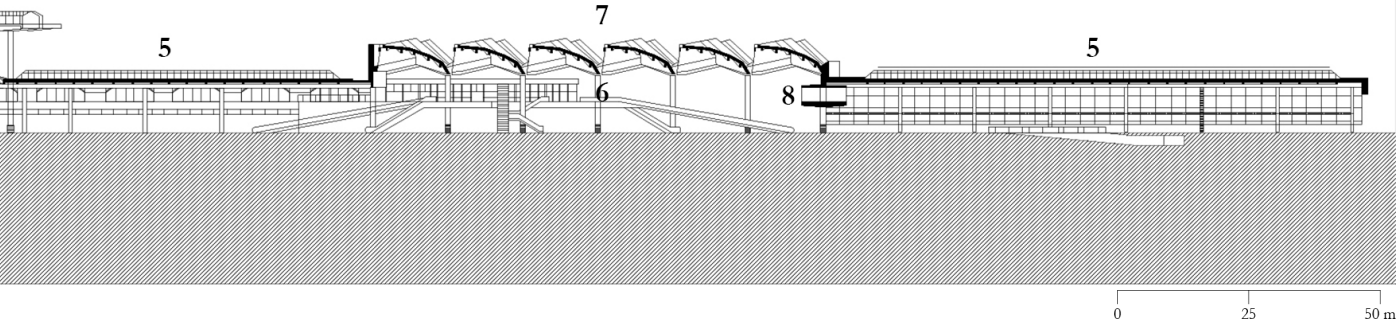


Fig.42 | Transversal Section
(Redrawn by Servi,2022)





1. Original Station Atocha 2. Moving Walkaway 3. Arrival Terminal 4. Brick Dome

5. Low-Rise Canopy 6. High-Rise Canopy & Arrivals Footbridge 7. Arrivals Footbridge 8. M.Alvaro Footbridge

Fig.43 | Longitudinal Section
(Redrawn by Servi,2022)

Fig.44 | Moving Walkaway
(Ineco,2010)

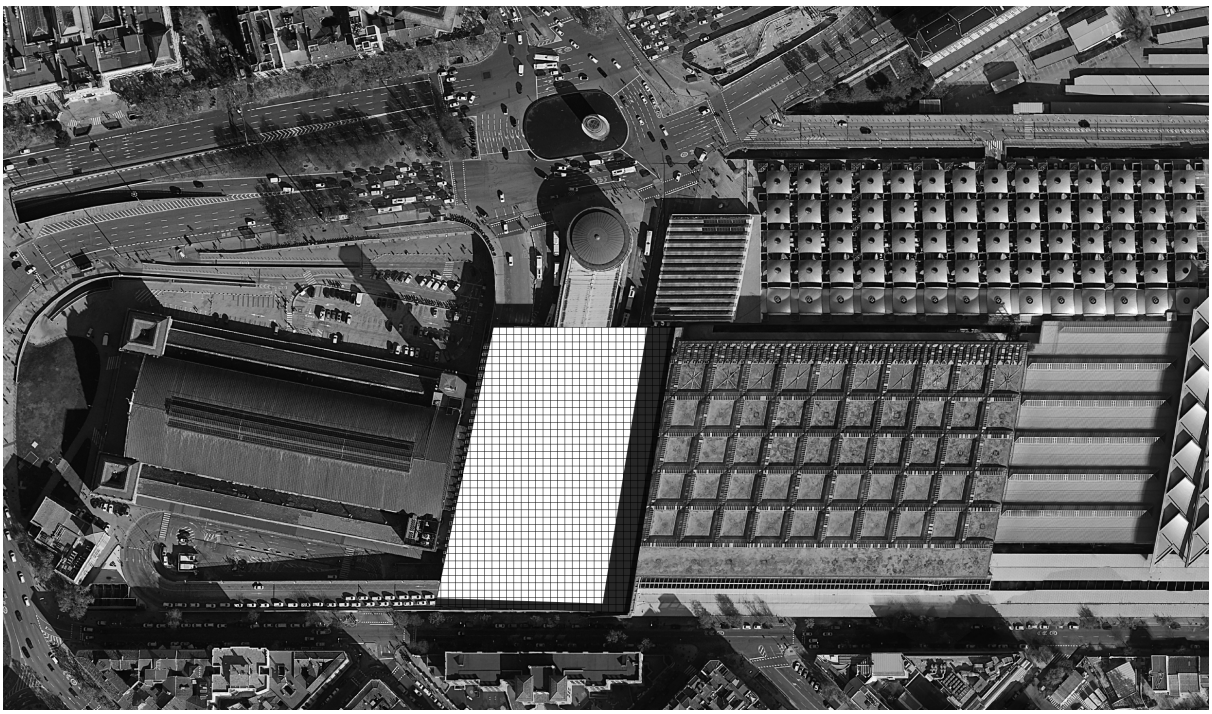


Fig.45 | Potential Open Public Space Between Three Typologies
(Illustrated by Servi,2022)

3.4. Atocha as Hedonistic Public Space (?)

Throughout the completion of the phase 1 intervention process in 2010, the complex has attained new qualities to be a place where passengers would have an enjoyable time. Atocha Railway Station complex enables users to maintain their journey inside the station. Separation of arrival and departure passenger routes is the most important action since it would be prevented a possible chaotic atmosphere inside the station. Therefore, both passenger types will have their unique journey between entrance and exit. In terms of arrival passengers of the high-speed train, they leave the platforms through a footbridge located under shell appeared canopy with its distinctive quality among other canopies. In that way, arrival passengers could feel "important" and "different". Comfortable interior conditions beneath the canopy is another significant factor that leads people to feel good and satisfied. Their journey continues at the mechanical passageway. The new possible users effortlessly march on toward the exotic jungle of the historical station through a cinematic passageway under the vaulted domes. The only handicap is that journey terminates in the arrival terminal due to a lack of directional linkage with the old station. On the other hand, departure passengers start their journey under the glass roof of the historical station. The first thing they saw is the tropical garden whenever they enter the station, which gives them freshness and reminds exotic feelings. In that way, they could get rid of negative thoughts and troubles of daily life. Their connection with urban reality will be detached and their only duty is to maintain the "passenger" role. High ceilings, luminous indoor quality, and the vivacious atmosphere of the route are the factors that make this journey pleasant. Departure passengers have direct access to trains, which is essential for effortless accessibility. Nonetheless, the underground corridor is dark and does not have a comfortable atmosphere.

Public space has to be appropriated by users. The industrial and alien character of the station disappeared through the integration of new vernacular volumes such as the clock tower, sign element, and brick dome. Material compatibility of the station with these vernacular typologies provides continuity between them, and the station becomes a "place" rather than an "industrial node". This changes the negative perception of people. The former station now accommodates restaurants and cafes people could spend their time while waiting for trains. However, the drawback of Atocha being a hedonistic public space is the lack of attraction from surrounding neighborhoods and facilities for daily use. For the replacement of conventional public spaces with contemporary public spaces inside the station, it is a vital necessity to attract people from the surrounding area. The main reason behind this problem, in the case of Atocha, is the level difference between the station building and surrounding venues.

New canopies were extended behind the former station, which is important to not lose the industrial character of the former station completely. Moneo created a space between old and new stations, but the hypostyle hall canopy almost touches on the old station. This space is mainly used by vehicles and it becomes crowded due to the abundance of columns that support the canopy. This space could be dedicated to citizens as an open space for daily use. Its central location between the old station, new HS terminal, and brick dome makes it a convergence point of different architectural typologies. Diversity could come to life in this place if a new steel canopy is moved toward the south in order to free up central open space for the utilization of the public. In this way, this area could be complementary that supports the hedonistic character of interior public space. Also opening the current parking area for the utilization of the public could break the barrier impacting between two neighborhoods, because this space is an isolated island between old and new station buildings.

Part 2

4 Orsay: Lateral Metamorphosis

4.1. Background

The Orleans Railway Company built Gare d'Orsay to extend the railway traffic of Gare d'Austerlitz into the city center. Orsay station, due to its central location, acted as a bridge between the city's outskirts and the city's center. Construction of the station was a part of the Universal Exhibition of 1900, and Gare d'Orsay was inaugurated in 1900. The station building is located on the Seine River coast, a region occupied by historical palaces, museums, and monuments. Railway tracks had been constructed below the street and the underground connection between the two stations followed a route along the Seine River. Underground railway connections avoided possible negative consequences of railroad transportation such as noise and air pollution and the non-desired appearance of industrial land. Station was designed, by architect Victor Laloux, with Beaux-Arts style architecture to fit the building to Paris's urban fabric, context, and architecture. The classical style stone façade was a decorative and ornamental element that conceals the industrial parts of the real station and its mundane purpose. Therefore, the screen façade of Gare d'Orsay was dishonest and deceiving. One of the most prominent characteristics of Gare d'Orsay, for that period, was the enclosed building design. The station accommodated electrically operated trains that were not creating smoke. Therefore, the station was designed as an enclosed space without the requirement of opening to evacuate smoke exhausted by conventional trains. In the following years of its inauguration, the station fell behind the rapidly developing technology in the railway industry. Since Gare d'Orsay did not have adequate capacity for the extension of railway tracks to accommodate modern trains, intercity trains stopped at the Gare d'Austerlitz. Thus, Gare d'Orsay had been used by small suburban lines until 1939. After that date, rail transportation services in the station had stopped and the abandoned period of the station began. During the period when the station remained disused, some parts of the station building were used for various purposes and activities ranging from the film set to the theatre stage.

The government's plans in the 1960s aimed to demolish the station building and replace it with a hotel building. Like most historical buildings including Atocha Station, Gare d'Orsay was targeted by the deconstruction trend of historical buildings emerging in mid of 20th century. The destruction plans carried on until 1971 when the efforts of Jacques Duhamel, who was minister of culture, resulted in the prevention of the demolition of the Gare d'Orsay building. The main reason

Fig.46 | Interior View of Original Gare d'Orsay
(SNCF Open Archive, 1950)

Fig.47 | Railway Trucks and Platforms
(SNCF Open Archive, 1900)

for preserving Gare d'Orsay for the French government was the fact that the modern building would not harmonize with surrounding structures. Le Corbusier's hotel proposal designed with a modernist architecture style proved the concerns of the government. The modernist design would contradict the historical context of the surroundings. After the demolition process had stopped, it was decided to renovate and reuse the station building for a different purpose. The existing building was preserved. As well as the station had to conform to surrounding palaces and museums in terms of appearance, its function also had to coincide with the function of its surroundings.

4.2.Necessity for a Museum

It was a fact that Gare d'Orsay had to have an essential function such as a monument, museum, etc.Gare d'Orsay is located in a region where the most famous museums such as Musee d'Louvre, The Musee du Jeu de Paume, and the Museum of Modern Art at the Pompidou Center. At that time, the Musee du Jeu de Paume was confronted with an overcrowding issue since it accommodated the highest number of visitors. On the other hand, most of the paintings belonging to the Louvre Museum were kept in storage due to a lack of space in the exhibition area. Furthermore, there was a stylistic and chronological gap between the masterpieces of the Louvre and the Pompidou. The new museum proposal was intended to deal with problems through the creation of new exhibition rooms and filling the art gap between Louvre Museum and Pompidou Center. It will be an art bridge between two museums. In that way, the new museum would provide continuity in terms of artistic style and time by including both impressionists and 19th-century academic works. The transformation of the station into a museum would solve the problems of other cultural venues. For example, reserved artworks would be able to be displayed in the museum since the new museum will host some paintings.

Another most influential reason behind the creation of the museum was the French government's seeking prestige and power. State-powered intervention in the cultural life of the public and state-supported architecture was a strong tradition in the French government. Therefore, the creation of the monumental museum would both demonstrate the power of government on cultural life and architecture, and it would bring back the glorious time of French culture. Furthermore, it was planned to introduce French culture into the world and make Paris a global cultural center through a series of projects in which the Musee d'Orsay would be involved[65]. Consequently, the transformation process of Orsay station into a museum started in 1979. Preservation of this 19th-century building would be a pioneer for the reappropriation of old and historical buildings in Paris. Since the central urban structure in Paris mainly has consisted of historical and old buildings, it would be reasonable to reuse old buildings and give them new functions. As a result, these actions would bring economic, social, and cultural gaining to government and society. The project including restoration of the station and interior renovation had been carried out by ACT Architecture, later Gae Aulenti was involved in the phases of interior renovation.Museum was not a mere project at that period. The beginning period of grand projects such as the urbanization of La Defense, the Grand Louvre Pyramid, and the Museum of Technology at La Villette coincided with the renovation period of Gare d'Orsay. Compared to the situation of Atocha development and urban revitalization of Madrid, Paris and Gare d'Orsay were in apart conditions. The impact of the Musee d'Orsay project is essential for the transformation of Paris into a global cultural center. In this period, monumental and postmodern architecture became a key factor in the de-

65 Andrea Kupfer Schneider, *Creating the Musée d'Orsay: The Politics of Culture in France* , (Pennsylvania: Pennsyl vania State University Press, 1998),15

signs of grand projects that were carried out during the 1980s. Gigantic signature elements clearly reflected the power-stated architecture in Paris. Grand Pyramid in Louvre, the gigantic sphere in the Museum of Technology at La Villette, and the grand towers of The Bibliothèque Nationale. Also, Nancy Marmer displayed the state-powered architecture in France;

"The underlying assumption of Louis XIV- that one function of and justification for the state patronized art is to enhance a monarch's (or president's) power and indeed to participate in and to enlarge that power-persists today. From Versailles to the Arc du Carrousel to the Centre Pompidou to the Orsay Museum, the giant construction of each succeeding government are expressions of that belief "[66]

Also, the statement of military painter Edouard Detaille expresses the powerful architecture of the station. He indicated that the station is superb, and has the air of a palace of art[67].As it was done in other projects, monumental design has been injected inside of Beaux-Arts style building. Gigantic dimensions of the railway station, central skylight over old railroads, and high stone arcades became the base for the design of interior space, later design by Aulenti would adopt monumental elements to express power. The project was carried out between architects and the government simultaneously in order to prevent any non-desired results. Therefore, Aulenti was involved in the project since ACT Architecture was not able to complete the whole project by themselves. This double language in the design constituted the main character of the Orsay.

4.2.1. Orsay in Urban Fabric of Paris

Orsay Railway Station has been built in Beaux-Arts style to fit the historical and neo-classical urban fabric of Paris. In this way, Orsay could establish a relationship with famous museums While most of the famous museums and cultural venues such as The Centre Pompidou, Louvre Museum, and Jeu de Paume Museum grouped on the north side of the Seine River, Orsay breaks the dominancy of world-famous museums in one side of the river. In terms of localization, Orsay does not situate amidst these museums, but the artwork context of Orsay becomes a bridge between these three cultural venues. The transformation of Orsay station into a museum enabled the creation of new exhibition rooms that would lighten the Louvre's and Jeu de Paume's burden related to lack of exhibition space. Orsay, through its Beaux-Arts façade and architectural elements, acts as an extension of the Louvre on the other side of the river.

Orsay Museum is a convergence place between the public and art. Louvre Museum has sophisticated art pieces which are difficult to understand and enjoy for ordinary and uneducated individuals. On the other hand, The Centre Pompidou is more dedicated to the public by including a large public library and wide-open public space in front of the building. With these qualities, Pompidou becomes more attractive to ordinary people. Orsay Museum congregates sophisticated high art with people who are not well-educated about art through its program and educational representation methods. Moreover, the move of the main entrance from the longitudinal façade looking at the river to the transversal façade opened a new opportunity to turn the old arrival yard into a square where people gather and linger before, after, and during visits. Integration of public spaces into museums promotes social inclusion in these venues. The connection between Orsay and Gare d'Austerlitz still is maintained through an underground railway line.

66 Nancy Marmer, " The New Culture: France '82 ", *Art in America* 70, (1982),8:120

67 Patricia Mainardi, "Postmodern History at the Musée d'Orsay" , *The MIT Press ,* 1987, Vol. 41 (Summer, 1987),33

Fig.48 | Orsay Station in Urban Fabric
(Apic,Getty Images, 1905)

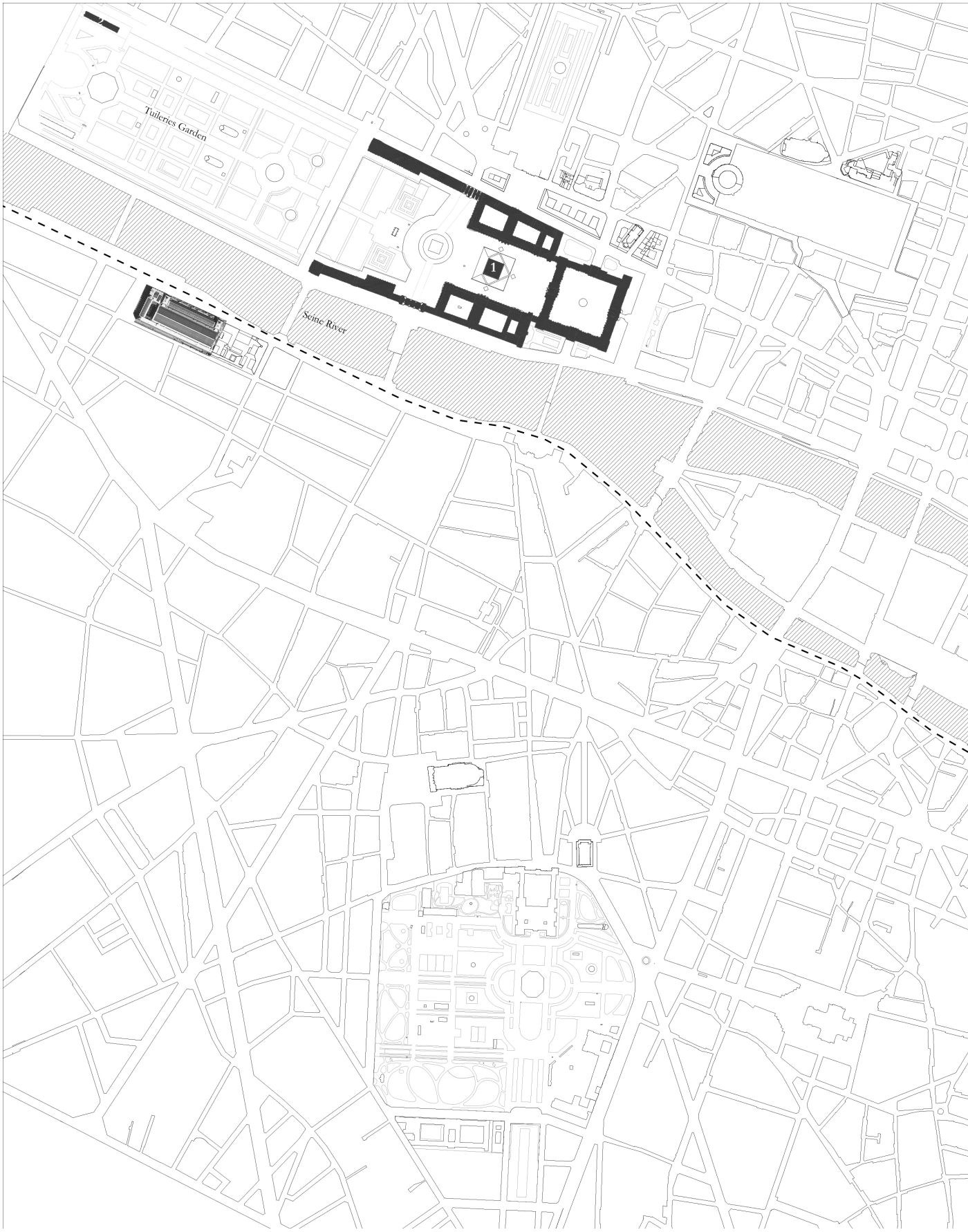
4.3. Metamorphosis of Architectural Object

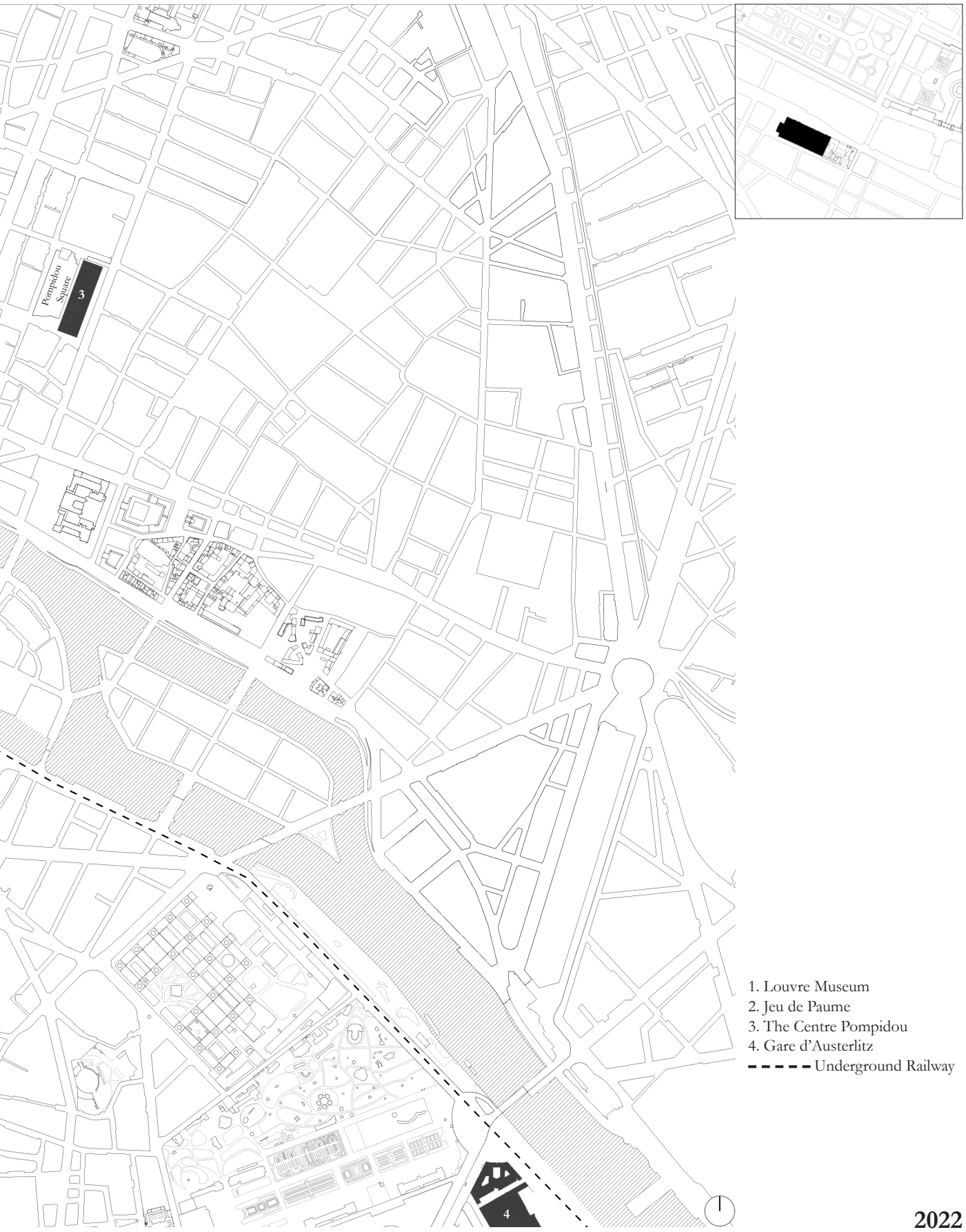
The museum renovation project was carried out by ACT Architecture and Gae Aulenti simultaneously and the project was completed in 1986. ACT Architecture, which was a studio consisting of young architects Renaud Bardon, Pierre Colboc, and Jean-Paul Philippon, started the renovation process by restoring the exterior original façade of the station building, then Aulenti was involved in the project during the interior design and arrangement of the station. ACT Architecture aimed to follow a new approach which was called "Métamorphose de l'Objet Architectural" for the heritage buildings. This new approach asserted by Jean-Paul Philippon includes three main aspects:

1. Transforming and recycling buildings
2. The dialectic between pre-existing and contemporary additions as a generator of new architecture
3. The city as a constant development work that each transformation process affects others [68]

Based on the metamorphosis conception, they carried out the transformation project by respecting the principal components of the station in order to provide continuity between old and new. ACT preserved the main layout, that is conceived by Victor Laloux, of the building and reduced its gigantic scale through a series of rooms situated on each side of the "central boulevard". Preservation of immense vault and long clear span and highlighting metal structures prove their intention not to detach station character from the building. The exterior of the station was restored to bring back the glory times of the building. Their initial manifesto has been realized in this way. On the other hand, the central longitudinal axis of the station was preserved while the entrance moved

68 Ana Cardoso de Matos, Fernanda de Lima Lourencetti , "Reusing railway infrastructures in the spirit of circular theory. A contribution to an operational concept" , *Vitruvio ,* 2021, vol 6 ,18


Tuileries Garden
1
Seine River



1. Louvre Museum
2. Jeu de Paume
3. The Centre Pompidou
4. Gare d'Austerlitz

Underground Railway

2022

Fig.49 | Orsay Museum Current Situation
(Drawn by Servi,2022)

from the Seine River to the transversal façade of the building.

Initially, rail tracks in the station were dismantled and the ground was covered to create new levels. The assimilation of the train shed, the creation of exhibition spaces, and the use of natural lighting through the original skylight became the main actions maintaining continuity between old and past. Furthermore, decorative elements and pendant lights were restored. They aimed to create a double language, a contradictory situation between the exterior and interior of the building. The main purpose of ACT Architecture for creating new space inside the building is still recognizable today. The new layout of the museum enabled visitors to start a journey at the quay level and complete the journey by experiencing and appreciating the whole station's immense dimensions. Therefore, rooms reduce the scale of the giant building and provide a correlation between the human scale and industrial scale. Moreover, these exhibition rooms were planned to enable museum-goers to flow without congestion. Michael Gibson defined that proposal as "flow room to room, from one art monument to another is effortless"[69]. This description is a very powerful aspect that would make the Orsay Museum a unique, enjoyable place when it was completed. ACT Architecture followed their new approach in the design of Orsay Museum through a series of interventions, however in some points, especially using dialectic as a generator of new architecture could not be succeeded completely and the design of ACT Architecture could not reveal a monumental and powerful design inside the neo-classical building.

According to their design, the central boulevard with two-sided exhibition rooms ended up with a classical amphitheater. Also, they included tropical gardens and preserved metal bridges. However, these design decisions did not coincide with creating a dialectic language. For instance, they put very classical elements inside the neo-classical building, which would not create a contradictory situation between the exterior and interior of the railway station as they expressed. The interior design remained very simple and weak under the immense character of the station building. Consequently, this proposal for interior arrangement did not coincide with the main purpose of the French government. Orsay should have been a monumental museum that would reflect the cultural power of the government. Therefore, it became an inevitable necessity for the involvement of Aulenti in the project. Her postmodernist approach would coincide with the purposes of the French government and monumental architecture would come to life inside the 19th railway station.

Although the main scheme of the plan such as the central boulevard and exhibition rooms located on each side has been preserved in order to establish a dialogue between old and new architecture, the involvement of Aulenti and her strong intervention decisions transformed the station building into a powerful and permanent space. Her postmodernist approach became the most powerful support of the second aspect, which is dialectic as a generator of new architecture, of conception more than the proposal of ACT Architecture. Aulenti firstly simplified the interior of the museum, eliminated elaborated elements such as gardens and classical amphitheater, and tried to create a subtle dialogue engaging the station, museum, and art. She aimed to create contrasts rather than compromises by adopting a postmodernist architecture, by giving Post-Modernism a slightly anachronistic flavor. It is another 19th-century life within the 19th-century shell. The anachronistic approach coincides with the initial design of the Orsay station. The design of Orsay turned to the past by concealing its industrial and relatively new function behind a historicist and traditional façade facing the Louvre and Seine in a time when it was expected that railway stations as

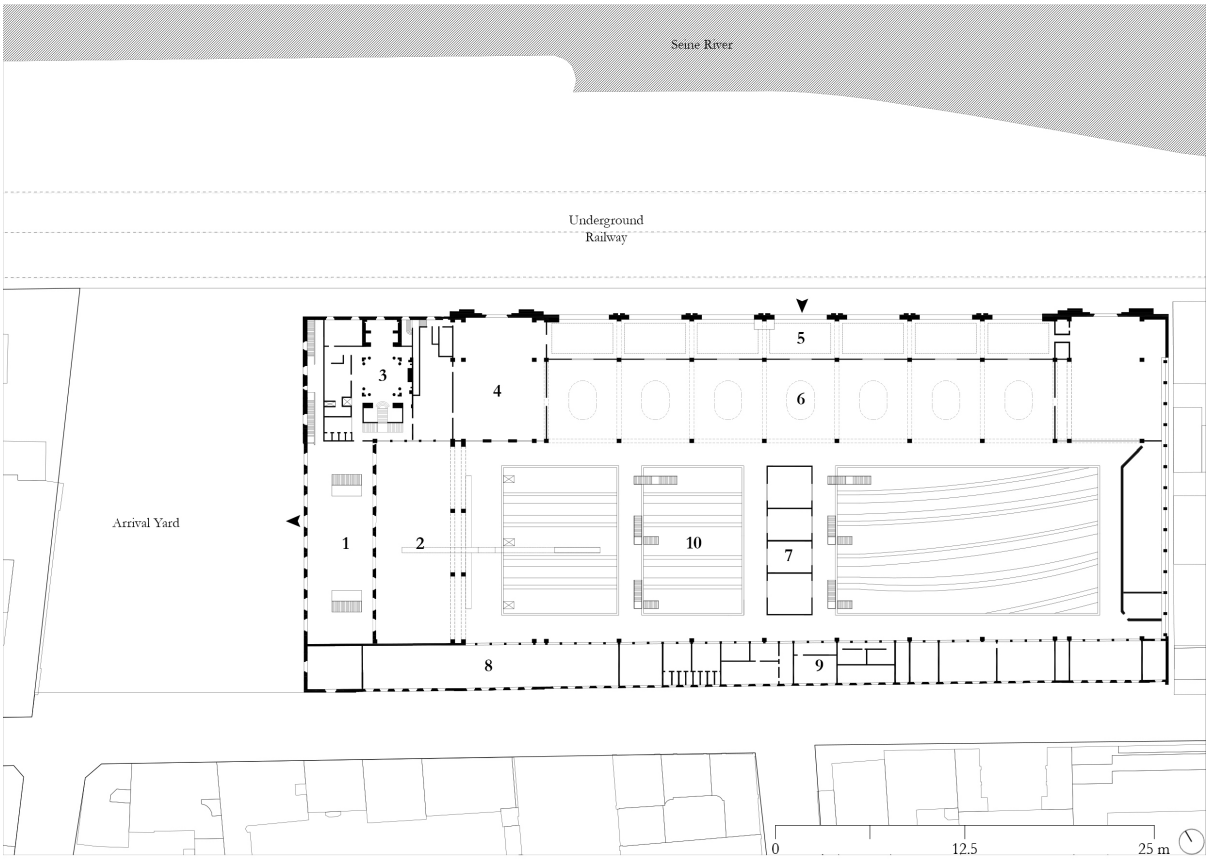
69 Michael Gibson " The Musée d'Orsay : A New and Different 19th Century , " *ARTnews 86* , no . 4 (April 1987) : 145 . 22.

Fig.50 | Construction of Museum
(Musée d'Orsay DR Archive, 1984)

non-traditional structures would be the future of modern architecture. Although it was expected to reflect this modernism with its exterior façade, the Orsay station building hid the new industrial architecture, so it was an anachronistic design [70] that does not reflect the time when it has been built. Possible contradiction and confrontation between historic Louvre and modern Orsay had been suppressed in this way. On the other hand, similar designs of two museums which are Orsay and the Louvre enabled them to create a visual, architectural, and art bond over the Seine River. The high stone arcades of Orsay Museum create a pleasant transition between the Louvre galleries.

The controversial design of Aulenti created this confrontation between the exterior and interior of the station building. Postmodernist design of interior space completely contradicted with French classicism of exterior façade. Moreover, postmodernist elements of interior space concealed the original industrial architecture of the station, which created a contrast between the interior and exterior. Some critics also explained that the intervention of Aulenti broke the continuity of the original architecture of the station and interior space was inappropriate. Her postmodern triumph was revealed in Orsay. However, Orsay's present, by extension future, appeared to continue rather than break in tradition.As a result, Orsay gained a new appearance through a series of interventions made in planimetric layout and sectional layout. Although the transformation process of the station into a museum did not create radical change in the physical urban structure of Paris, it had great influences going beyond the station building. Small intervention decisions impacted the role of Orsay in the urban structure directly.

70 Patricia Mainardi, "Postmodern History at the Musée d'Orsay" , *The MIT Press ,* 1987, Vol. 41 (Summer, 1987),32



1. Arrival Hall 2. Admission 3. Hotel Entrance 4. Cafe Orsay 5. Departure Entrance

6. Departure Waiting Hall 7. Ticket Offices 8. Towers 9. Offices 10. Platforms

Fig.51 | Orsay Train Station Ground Floor Plan
(Redrawn by Servi , 2022)

The most important action was the replacement of the main entrance which changed the whole composition of the station. The main entrance of the station and hotel was located on the longitudinal façade looking at the Seine River and Louvre Museum, so the dialogue between the two buildings had been strengthened. Hall under gigantic series of domes supported by steel arches was dedicated to departure passengers to linger or spend time while waiting for trains. While departure passengers used a longitudinal façade, the transversal façade was utilized by arrival passengers to separate traffic flow inside the station building. The movement of the main entrance to the transversal façade enables visitors to explore the tremendous dimensions of the building and aggrandize the architectural value of the station, which coincides with the main purpose of the French government to inject monumentality into the building. Also, new entrance of the museum has been emphasized with a suspended canopy.On the other hand, the transversal entrance axis is still recognizable in Orsay Museum. The long central boulevard going through the whole building is interrupted by a transversal street situating on the axis where the old main entrance and ticket office huts were located, which concretizes the respect to the original design layout of the railway station. Preservation of industrial elements, skylights, and domes maintain the station identity of the building.

To compare Orsay as a station and museum, the abundance and emptiness of interior space are recognizable through plans. Whereas Orsay as a station required more large spaces to control crowd and circulation of railway traffic, this necessity disappears during museum transformation and the building was reduced to human scale through new floors and the abundance of elements.

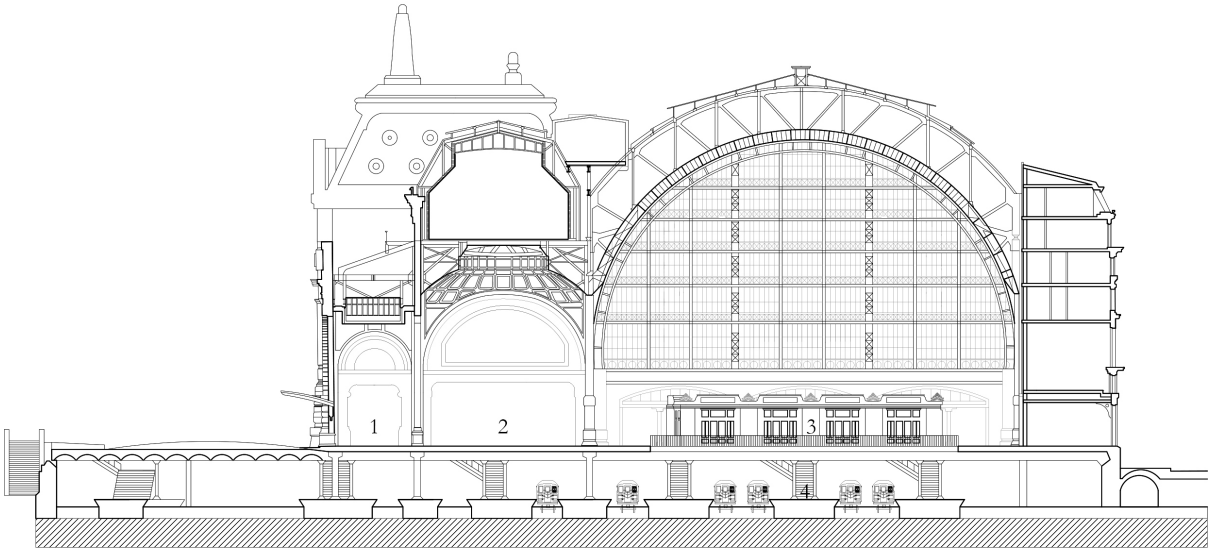
1. Entrance 2. Admission 3. Gift Shop 4. Bookstore 5. Exhibition Rooms (Houses)

6. Photograph & Graphic Arts 7. Architecture Exhib. 8. Towers 9. Temporary Exhibition 10. Sculpture Court

Fig.52 | Orsay Museum Ground Floor Plan
(Redrawn by Servi , 2022)

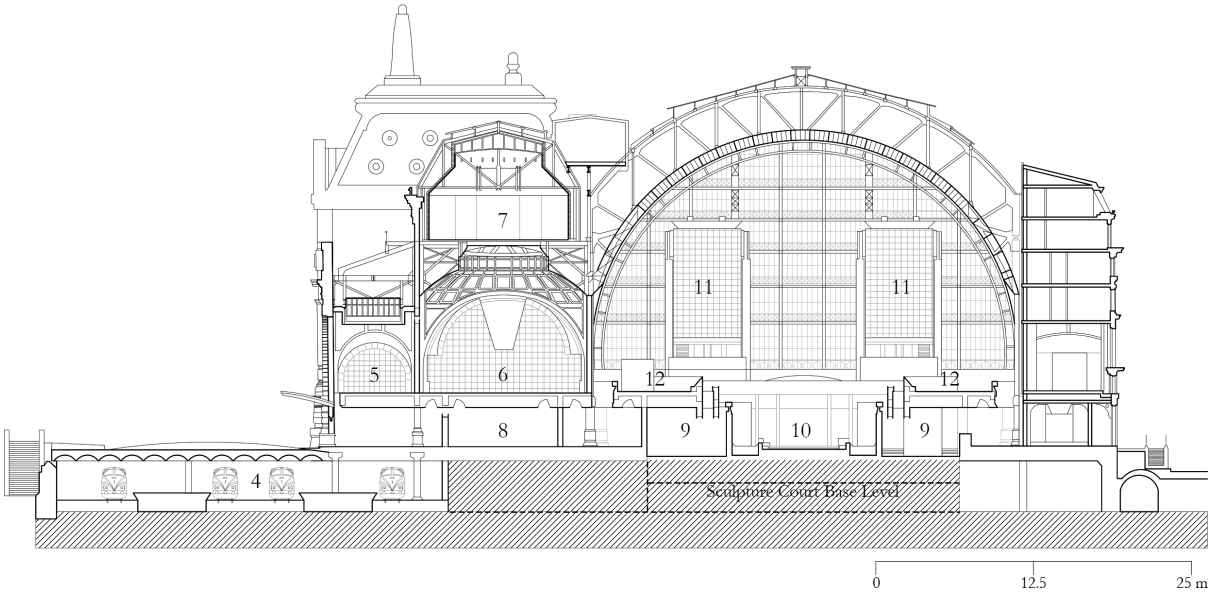
Exhibition rooms have been scattered to various plots in the building according to their context. While temporary exhibition rooms are located on the edges, permanent exhibition rooms are placed on the central axis of the station. The old café now is used as a bookstore without confronting radical change. Furthermore, the original design of the hotel entrance is preserved as a part of the museum exhibition. As it has been respected to plan layout, sectional elevations of original design also have been respected. After platforms and railroad tracks were dismantled, the ground surface was covered. The lowest level, which is also starting level of the museum visit, in the museum situated on the same level with platforms and rail tracks. The gradual rise of the central court floor both emphasizes the monumental atmosphere and eliminates the elevation differences between street and railroad platforms. The elimination of elevation differences could be clearly seen in the intersection of the transversal corridor and central boulevard, where railroad level and street level are balanced.

Although rail tracks inside the station were dismantled and covered during the transformation process, the tunnel located under the street was not touched to be used as a station for the new RER C Line. Construction of this new railway line was completed in 1979 and RER C Line connected Gare d'Orsay with Invalides station through the underground tunnel. Therefore, Orsay Station was displaced laterally toward the riverbank, and the number of platforms diminished. The tunnel was arranged according to the new railway line, and maintains the station character of Orsay nowadays. There are four platforms totally. Today, the connection of Orsay with Gare d'Austerlitz still continues through RER C Line.



1939

1. Entrance 2. Waiting Hall 3. Footbridge 4. Railway Platforms



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5. Paintings Room 6. Paintings Hall 7. Impressionist Gallery 8. Temporary Exhibitions

9. Exhibition Rooms (Houses) 10. Sculptural (Ceremonial) Court 11. Towers (Triumph) 12. Terrace Sculpture

Fig.53 | Transversal Section of Orsay "Station" and "Museum"
(Redrawn by Servi, 2022)

Fig.54 | Collage ‚Orsay as "Station" and "Museum"
(Servi, 2022)

4.3.1. Postmodern Triumph

Gae Aulenti used postmodern architecture as a tool for reuniting contradictions and replacement of history with spectacle. She used a postmodernist style in a different way, by the use of a historicizing architectural language, a combination of incompatible styles, central stylistic attributes, and the elimination of possible historical meanings. As a result, the monumental architecture inside neo-classical buildings emerged. Pluralist language of postmodernism captures Orsay Museum. Charles Jencks claims that post-modernism is both the continuity and transcendence of modernism, its heterogeneity clearly depicts our pluralism, since postmodernism has a character with qualities of double-coded, ironic, and discontinuous traditions[71]. Statement of Jencks reminds Renner's definition of post-modernism.

"…The double-coding conforms as a matter of principle not only to the restrictions of building materials and construction techniques but first and foremost to the peculiarities of the environment and the requirements of the users."[72]

Orsay Museum blurs the past by using ancient techniques and forms with new materials, this double-coding, which is the main character of postmodernist architecture, comes to life as a combination of modern techniques with conventional Beaux-Arts style building. In this way, citizens could understand and interact with architecture in a familiar way. Therefore, it is beneficial to meet with architecture in a more recognizable world than it is, which will undoubtedly reveal salutary conflicts related to currents. Aulenti's contextualist interior design clearly reveals these conflicts by turning the means of layering, surprising and historical association into a symbolic program. Her design was a response and disobedience against the reduction of building to simple and few figures. The radical design of Orsay was part of the general refusal of postmodernism against the simplification of buildings carried on by the television and film industry in order to create understandable scenes for audiences[73]. Charles Jencks defines railway stations as temples of energy, mobility, and commerce[74]. Therefore, rigid, functionalist, and austerity principles of international design are unreasonable for railway station character and identity. Diversity and intensity are the main entities that define stations. In order to maintain this main character of railway stations, powerful architecture is the main tool to achieve this goal. Industrial temples of modernity transformed into 20th-century culture shrines which are museums. Aulenti used the temple metaphor by eliminating any possible references and reminiscent and she interpreted it with contemporary material use.

The adoption of monumental architecture, which was inspired by Egyptian Funerary Architecture[75], demonstrated the anachronistic postmodern approach by introducing heavy walls on each side, erecting two towers on the central spine, and emphasizing the central grand nave with stairs. Two towers are used as circulation and exhibition room, which facilitates the pedestrian traffic flow inside the building. Heavy walls on each side behave as protection elements that isolate visitors from the street and its circulation, and outside the reality of Paris. However, at the same time,

71 Charles Jencks, *What is Post-Modernism ? (*Third Edition. London: Academy Editions, 1989), 7

72 Rolf Günter Renner, *Die postmoderne Konstellation: Theorie, Text and Kunst im Ausgang der Moderne.* (Freiburg i.B.: Rombach, 1988) ,67

73 Jean-Louis Cohen, "L'architecture Saisie par Les Médias", *Gallimard* , 2001, no: 11, 313

74 Charles Jencks, *Architecture Today* (New York: Harry N. Abrams, 1988), 321

75 Funerary architecture is created by communities with a materialistic belief in the eternal life and by persons who would like to perpetuate and symbolize their temporal significance.Pyramids are very clear examples in Egypt.

Fig.55 | Orsay Museum Central Boulevard
(Mariano de Angelis, 2018)

the skylight breaks this isolated condition. Detaching people from the reality of the city is essential for visitors to lose their identity in the real world and give them a new role in the museum. Identity loss will bring happiness and pleasure, they will see themselves as "King of Egypt". On the other hand, the interior space is mainly illuminated through the skylight, which contributes to the monumental and serene atmosphere of the interior. Skylight and roof become elements that provide a connection with physical reality for the visitors on the ground floor since these two architectural elements reflect the 19th-century character of the station building, as a matter of course, the physical urban reality of Paris. Monumentality and expression of state power have been achieved through the adoption of Egyptian Funerary Architecture and its abstract interpretation.

However, the design does not directly remind the historical references while elements in the museum and layout implicitly make connotations from the past. The official press information in Orsay Museum describes the design as "escaping from all historical and stylistic references"[76]. Conventional forms of Egyptian architecture have been reinterpreted in a new form that is different from what is known and understood, an abstract form that does not make direct references. The "Egyptoid" sculpture court consisted of grand central staircases going up from the lowest level of the entrance toward two central towers, which makes connotation with gigantic stages as in Egypt. Central aisle becomes a ceremonial court of visitors. Flat slab walls and ponderous forms support the monumentality of space by creating a monolithic state power ceremony spectacle. One critic detected an analogy between the Orsay Museum and the Egyptian Pyramids due to the beige color of walls and floors and the layout of the main hall[77]. Moreover, Philip Johnson praised the work of Aulenti as a "Postmodern Adaptation of Past"[78]. Aulenti's interior design enables visitors to explore and understand 19th-century art, architecture, and history through 20th-century lenses actually and metaphorically. Heavy artificial walls cover exhibition rooms on each side and create a visual lure in order to attract visitors to intimate spaces. Exhibition rooms seem identical from the exterior with their stone cladding blind wall that does not give any clue about events inside it. It is the thing actually attracts the people, they cannot see but they can hear, which grows the desire and excitement to see and explore inside these hidden boxes. The unforeseeable situation of stone rooms resembles surprising containers and attracts everyone's attention.

Aulenti's design has incorporated the station's industrial background into a traditional arts temple. Visitors are able to see the industrial architecture and decorations of the station only through cracks between exhibition rooms. While she conceals the industrial part of the railway station, this action also increases the value of the industrial character of the railway station. Industrial architecture becomes less but precious, hidden but attractive. Even though the main court is a metaphoric design, it eludes from direct historical reconstruction, instead, it is a fantasy of a government-backed artistic hegemony. The clear similarity between Egyptian Architecture which is an art backed by political power and the design of the Orsay Museum managed by the government illustrates itself with the reinterpretation of monumental elements in the contemporary and postmodernist ways, which also coincides with contemporary concerns. Peter Eisenman believes that architecture unveils the fractures of urban situations and conflicts, and architecture should be a symptom of the conflicts in the city. The ambition of the French government for power in social and cultural life could be clearly seen in the creation of the monumental design. Connotations

76 Press information publication ,chapter 9, L'architecture du Musee

77 Andrea Kupfer Schneider, *Creating the Musée d'Orsay: The Politics of Culture in France* , (Pennsylvania: Pennsyl vania State University Press, 1998),40

78 Andrea Kupfer Schneider, *Creating the Musée d'Orsay: The Politics of Culture in France* , (Pennsylvania: Pennsyl vania State University Press, 1998),37

Fig.56 | V Shaped Opening
(Marioano de Angelis, 2018)

Fig.57 | Exhibition Rooms
(Marioano de Angelis, 2018)

from Egyptian architecture also support the subtle reflection of political conflict in Paris in the 1980s. The architecture enables social communication by conveying implicit political messages through design. As expected, the architecture of Orsay Museum served the government but also serves to public.

Monumental architecture both made the government and the public happy. There is a fact that strong and monumental architecture makes this place permanent. With the inauguration of the museum, many critics came up. Françoise Loyer defines design as "architecture was a compromise between Louis Kahn and Albert Speer" while Vernes appreciated the ACT's transversal and Aulenti's vertical synthesis[79]. Gigantic, heavy forms and strong material selection coincides with the enormous size of railway architecture whose ceiling covers a very large span. Powerful architecture pulls up the atmosphere of space and enables visitors to feel important and strong. The communicative quality of architecture in this way directly influences the feelings of visitors. As Stendhal indicates, beauty is only the premise of happiness[80]. Components that constitute beauty are eternal, invariable, and relative elements. The immense dimensions of the building, as a matter of course, monumental architecture becomes a tool to give pleasure to people.

ACT 's conception of creating space within the museum was carried one step further through Aulenti's design of each room as a unique house with its own identity. Every gallery has its own mise en scene. The reason behind designing each room in a different style was to correlate artworks with the exhibition area. Through individual installations, Aulenti blended various styles. An expectation and mystery behind heavy limestone walls are attraction elements for visitors. Act's visitor flow scheme was maintained in Aulenti's design by controlling visitor traffic with signs that show only what lies ahead, not behind.

The preservation of metal bridges for circulation reinforces the blending design of industrial elements and postmodern monumental elements. Original support beams are highlighted and the industrial character of the station building is supported through the use of wire mesh materials. Aulenti played with existing structures of the railway station, which pulled up their value in terms of object. For example, she created "V-shaped " openings by filling the inside of existing arches with stone, which reveals the curiosity and desire to explore in the minds of visitors. She respected the axis of arches on each side while forming and placing new exhibition rooms, and small passageways have been created between stone volumes. The best space is dedicated to impressionist paintings that are best perceivable under natural light. In order to demonstrate the impact of natural light, the walls in the impressionist gallery have been painted in dark colors. In that way, the impressionist gallery has a convenient and satisfying atmosphere. Postmodern interpretation of conventional industrial elements turned into an art piece and created an unforeseeable situation for visitors. Arch is the main dominant element in the Orsay station. From arcades to glass roofs and side naves arch form is the most prominent architectural form. Aulenti created cuts on both sides of stone arch in one of the exhibition galleries. The postmodernist approach distinguishes Orsay from the rest of conventional museums. It is dedicated to the public and its monumental design attracts people. Orsay is not only a museum, it accommodates a city behind a Beaux-Arts-style façade. The layout of the museum makes connotation with urban structure of Paris and presents an alternative Paris atmosphere for visitors.

79 Andrea Kupfer Schneider, *Creating the Musée d'Orsay: The Politics of Culture in France* , (Pennsylvania: Pennsyl vania State University Press, 1998),40

80 Bernard Charles, "J'ai pris le temps qui passe à la gare d'Orsay" , *Autres Temps. Les cahiers du christianisme social ,* 1992, No:33-34, 143

Fig.58 | Blending Design of Industrial & Monumental Architecture
(Marioano de Angelis, 2018)

Fig.59 | Entrance to Orsay
(Marioano de Angelis, 2018)

4.3.2. Alternative Paris Behind 19th Century Shell

Most prominent qualities of urban structure revive behind 19th century skin of Orsay. Elements of urban structure are compressed into the inside of the station building. "City" is able to be experienced from a completely apart perspective from the reality of Paris. Paris is a city that is famous for with long boulevards and streets ending up with monumental structures. Long boulevards of Paris come to life under a gigantic glass roof as the central court which is filled with numerous sculptures. Central court ascends toward triumph towers. The non-linear structure of the court converts a monotone corridor atmosphere into an experience as if people walk through Paris boulevards. Furthermore, the plan layout of Orsay has similarities with urban structure. The organic division of urban blocks in Paris is translated as grid division in Orsay. Central boulevard crosses the volumes, which are exhibition rooms or houses, and divides them into two main fragments. Small passageways or cracks cross these volumes transversally. Consequently, fragmentation of volumes creates individual block units.

These small exhibition rooms symbolize the apartment blocks in Paris. Buildings in the central areas of urban fabric have an almost identical appearance from an exterior perspective. However, each unit has apart character and carrier vivacious qualities behind the neo-classical façade. In Orsay, house units are exhibition rooms. The exterior appearance of exhibition rooms creates a monumental and powerful atmosphere that coincides with the whole design of the museum. Nonetheless, the hidden vivacious atmosphere behind heavy stone walls connotates the housing units in Paris. Colorful interior walls of exhibition rooms give each volume a unique character, which reveals diversity. Visitors after walking around the rooms and central boulevard, the central court ends up with two triumphal towers which are erected at the end of the building. These two towers remind the monumental standalone structure, the Arc de Triomphe.

Alternative Paris comes to life with conspicuous urban elements of real Paris. They are reinterpreted in monumental character and presented to visitors to explore another face of Paris. Besides similarities between urban structure and Orsay, the social life of the past is also reflected as a contemporary version through the classification of artworks. In the past, people were classified in their social life. Their social class status determined even their living conditions. The caricature of Edmon Texier explicitly displays the social status differences in a single apartment building in Paris. While the first floor was dedicated to the upper class, the attic was utilized by poor people in inferior conditions. The convenience of interior space also diversified based on social class status. The height of the ceiling diminishes on the upper floors whereas the first floor is the best floor to benefit from natural light during the day. A similar situation exists in Orsay. Arrangement and classification of artworks have been made according to their styles. For example, the best place in the museum has been given to impressionist artworks. The attic floor, compared to its status in the past, is the best place to benefit from natural light and the height of the ceiling is satisfying. Therefore, impressionist artworks are one step ahead of other styles as a value in the collection.

The creation of a city inside a building without explicit replication of urban structure enables people to escape from the physical reality of the city, but at the same time, prominent elements of the city still are recognizable, which prevents people to detach from reality. To maintain realism in a subtle way that avoids any historical and political references is crucial to make this place familiar in the minds of visitors. All these complements contribute to increasing the quality of time spent in museums and help people to experience pleasures and happiness through physical reality.

Fig.60 | Orsay,Alternative Paris Behind 19th Century Shell,Collage
(Servi, 2022)

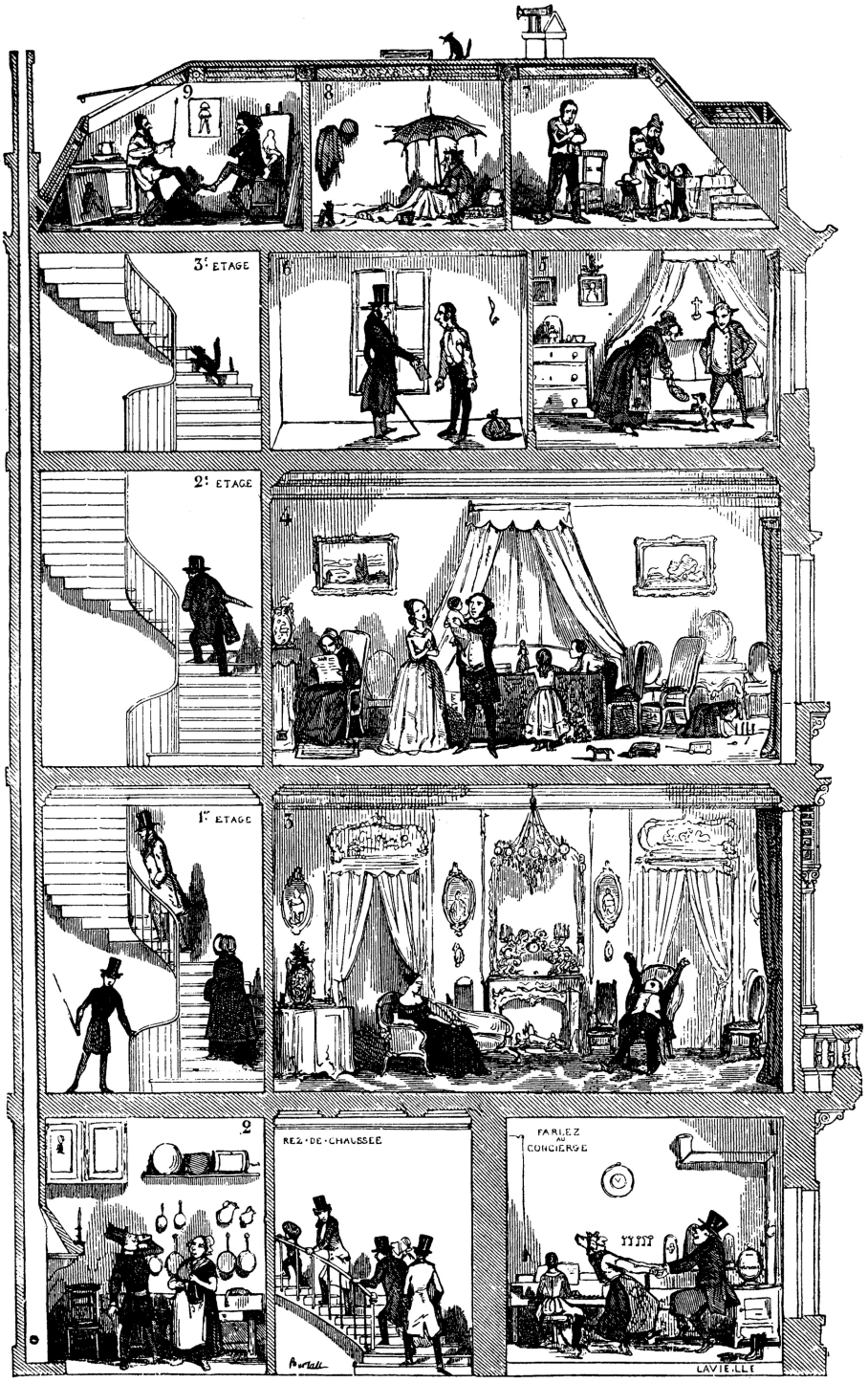


Fig.61 | Tableau de Paris
(Edmond Texier, 1852)

4.3.3. Museum for Joy

Art, according to Pierre Bourdieu, does not have a common language that everyone can perceive. It is only for people who are well-educated and equipped to understand and appreciate them[81]. Conventional museums like Louvre affirm their cultural dominancy for the middle and upper classes. However, Orsay became an exceptional art venue that breaks the monotone, non-multimedia quality of the museums through architectural layout and functions. Rooms in the museum were diversified according to the artistic style of pieces and each room differentiate from the other through colors although they look the same from the exterior. Even some painters were dedicated to the special room. Hidden variations and unexpected surprises behind limestone walls are other outstanding characteristics of the Orsay Museum. The planimetric layout of the museum and functional division lead people to follow a one-way direction from the entrance. Elimination of two-way traffic not only prevents congestion and crowding but also facilitates flow. The quality of the museum is considerably required for taking pleasure from the visit since effortless accessibility is the key element for pleasure. Museum-goers are free to choose the route they would like to follow. Giving "freedom" to visitors avoids the monotone visit route in the museum. Furthermore, on the central boulevard, people are able to recognize the composition of diverse theatrical images. Aulenti designed a series of spectacular, dramatic adornments that impress visitors visually. Twin figures by Falguiere and Moulin frame the station's giant clock and embrace both the twin towers and the barrel-vaulted glass roof. On the other hand, circulation is managed through the differentiation of materials and colors both on the floor and walls. The borders of the central boulevard are emphasized with orange-brown colored stone parapets while dark-colored stone frames emphasize the entrance of exhibition rooms. The entrance axis of exhibition rooms also visually is marked using a dark color on the floor. Traffic flow is facilitated through color and material differentiation.

Lighting in the museum was another prominent characteristic that provides a convenient atmosphere for visitors. Aulenti used the glass vaulted roof of the existing station as a skylight to illuminate interior spaces. The use of natural and artificial light together created a constant bright interior atmosphere, which is essential for making the visit time enjoyable. Interior space is illuminated with diffused light constantly and it is hard to find dramatic light-shadow contrast. Furthermore, material selection is also an essential criterion since it directly impacts the atmosphere of the space. Walls and floors were covered with limestone material, their light color contributes to the bright atmosphere of the area.

Rebérioux believes that art could be both understood and enjoyed[82]. She intended to eliminate the cultural gap between workers and upper classes by attracting labor classes toward this new cultural venue and educating them through multimedia tools. Therefore, the museum was equipped with multimedia tools that provide a clear and simple explanation of artworks. Through cultural services in the museum, it was purposed for people to find answers to their curiosities and to touch the new public because people enjoy the things that they understand. The communicative language of architecture is combined with visual explanations and documentation. Accessing information in rooms and spaces is no longer like finding a target in a maze. The attraction of the worker class toward Orsay Museum was meaningful since the station was an industrial element, a workplace

81 Emma Barker, *Contemporary Cultures of Display (Art and Its Histories Series)*, (New Haven: Yale University Press,1999)

82 Andrea Kupfer Schneider, *Creating the Musée d'Orsay: The Politics of Culture in France* , (Pennsylvania: Pennsyl vania State University Press, 1998),76

where a huge amount of workers were employed. However, the working class was covering the least museum participation rate among other classes. The transformation of Orsay also signaled the transformation of the place for labor: from the workplace to an enjoyable place. Theatrical designer Richard Peduzzi created a scaled model of Garnier's Paris Opera House with its neighborhood, and the model was placed under a transparent floor where visitors go with enthusiasm. The use of a variety of presentation methods in the Orsay Museum for explanation to visitors became successful. Postmodernist forms of entertainment and splendor distract visitors from political life. Abstract architectural elements such as artificial walls avoid making any historical or political references that could be reminiscent of daily life.

4.4. Orsay as Hedonistic Public Space (?)

Orsay gained a new function, new appearance, and new quality as a public space. Museums as public spaces of the contemporary world are convergence places of society. People could socialize and interact with others, and they could discuss art. Art becomes an enjoyable object in Orsay through visual and written explanations. Small houses reveal feelings of curiosity through their identical appearance from the inside, but they give tips for their vivacious and colorful interior atmosphere from cracks to be explored by people. Unforeseeable situations prevent monotone and boring museum visits in Orsay. People learn and learning gives them satisfaction to achieve a target. Through the monumental character, Orsay gains power, which influences the feelings of museum-goers directly. They value themselves.

The railway station still continues to exist under the street on the left side of the Seine River. Therefore, the node characteristic facilitates to access Orsay Museum from remote locations. Visitors could easily access the museum without effort. Although the museum has always vivacious and crowded atmosphere, the planned layout prevents congestion inside the building. Small houses are the main components keeping the crowd on the central boulevard at an optimum level. Fluid circulation is achieved. Simplifying the art is essential to address diverse visitor profiles ranging from old people to students. Especially, for students, it has been developed educational zone inside the museum to explain the art. Diversity, intensity, and effortless accessibility have been met. By maintaining station character as non-place under the ground, visitors directly confront the entrance of Orsay Museum. Hence, Orsay Museum becomes the "place" of "non-place" of Orsay Station.

Aulenti maintained the industrial character of the building by preserving the gigantic glass roof, steel arched columns, and original walls. Also, the main layout of Orsay Station has been respected, in this way, history and identity were not detached from the building, which was essential to avoid turning this place into an alien and non-familiar space. Prominent elements such as arch openings and metal bridges that carry the industrial character of the station were reinterpreted in an abstract way as an artwork by Aulenti. The building gained a soul after postmodernist actions and interventions. To preserve architectural heritage quality and blend it with contemporary elements creates a dialectic language, which is crucial to function building according to necessities of the contemporary cities without detaching it from its roots.

With these all qualities, Orsay Museum makes visitors happy and presents a joyful experience through various activities and functions behind the Beaux-Arts façade. Visitors are free to visit the museum as they want. Although the starting point of the museum is fixed, the route of the journey is clinging to the desires of museum-goers, which gives people freedom and flexible visit.

The high ceiling of domes has been reduced to a human scale through the addition of a new floor level. In this way, it was avoided visitors feeling lost among the gigantic architectural elements of the building. However, a general approach for the design such as a metaphor of Egyptian Funeral architecture through massive stone blocks and a ceremonial ascending boulevard could not be the contemporary approach. The actions did not use developed technological opportunities that would coincide with the main character of railway stations, instead, Aulenti turned to the past. In previous sections, it was stated that the exterior of Orsay Station had anachronistic design quality and it was ersatz. The original approach and Aulenti's design intersect in this manner. Compared to the Atocha Railway Station development project, station identity remained as a visual entity.

Fig.62 | Les Quatre parties du Monde Soutenant La Sphère Céleste, Jean-Baptiste Carpeaux
(Musée d'Orsay DR Archive)

Fig.63 | Impressionist Gallery Under Skylight
(Marioano de Angelis, 2018)

Fig.64 | Postmodern Arch
(Marioano de Angelis, 2018)

Part 3

5 Haydarpasa: New Centrality

5.1. Background

Haydarpasa Railway Station was opened in 1872 with the inauguration of the Haydarpasa-Izmit rail network. The initial two storeys station building had a simple typology and it was built with a wooden structure. The area before the station was a trade port. The railway station and port worked together at that time. The existence of a railway station and port increased the volume of trade in the area. With the completion of the new Haydarpasa Port, passenger and commercial traffic grew up, which led to the construction of a new railway station that would work with the port. The former station, which still remains standing today, was designed by Otto Ritter and Hellmuth Cuno, and the construction was completed in 1908. The initial wooden station building was located behind the current station and the two station buildings served together until 1936 when the wood structure was demolished.

Compared to many examples of railway stations, Haydarpasa Railway Station has exceptional quality since the building locates on the coast while a large number of railway stations are located in the inner part of the land. One of the main reasons behind this decision is the existence of a port with a large volume of trade. On the other hand, the desire of the Sultan to build an immense structure that would reflect the power of the Ottoman Empire and would be recognizable from the opposite side of Istanbul became a principal factor. Moreover, at that time, Sultan requested German architects to build a station where rail tracks would meet with the sea. All these factors placed the station building on the edge of land. Since the project was located on the artificial port, the new station building has been constructed over 1100 wooden piles with 21-meter lengths on the sand.

Haydarpasa Railway Station has synthesis architecture involving German neo-classicism and Turkish motifs and ornaments. Two gigantic towers erected on both sides of the central part reflect the power of the empire and the immense dimensions of the building and its heavy stone facade and serious appearance give the station building palace characteristics. On the other hand, the station building reflects the convergence of different cultures with its synthesis architecture, which coincides with the main purpose of the station, the zero point of the Berlin-Baghdad network, which is meeting point of East and West.

Fig.65 | Haydarpasa Railway Station, 1914
(SALT Research Archive, 1914)

Haydarpasa Railway Station has a non-symmetrical U-plan typology in which the east arm is longer than another arm. The longer arm is dedicated to departure waiting rooms which are also divided into small rooms by class, whereas the short arm mainly consists of offices. The central part of the station building was divided into three parts, which are the arrival hall, departure hall, and baggage services. In this way, the departure and arrival halls are separated from each other to prevent congestion inside the building. Although the station building is perceived and seen as masonry work construction through its heavy stone façade appearance, in fact, it has been built mainly with steel construction, so the stone façade is the screen concealing the steel structures and railroad tracks and platforms behind it.

5.2. Isolated Industrial Island

Haydarpasa Railway Station continued to operate for commuter trains until 2012. In 2010, the roof of the railway station burned due to fire, and the station partially become unserviceable. The fire was the initial event pulling down the attractive quality of the place but the station maintained to work after the fire. With the inauguration of the Marmaray Project which is the new railway route connecting the Asian and European sides of Istanbul through a rail tunnel running under the Bosphorus strait, Haydarpasa Railway Station was excluded from the project. Upgrade in existence commuter railway network and their integration into the project left the Haydarpasa an unused and non-functional place.Moreover, HS Railway Terminus was placed in the most congested and chaotic place in the urban structure, therefore Haydarpasa remained non-functional in railway traffic and network. The abandonment period of Haydarpasa Railway Station started in 2012 and still continues.

Haydarpasa Railway Station is located at the intersection of three neighborhoods which are called Rasimpasa, Selimiye, and Acıbadem. This industrial hub, which is encircled by three distinct neighborhoods, becomes a physical and visual barrier between them rather than becoming a convergence point for people. Three neighborhoods have apart identities and they have been urbanized in different periods. While Selimiye is the oldest neighborhood which involves historical buildings constructed in the 19th century in the area, the oldest housing settlements are located in the Rasimpasa district. Moreover, Acıbadem involves the newest settlements among others, and it was just a meadow when Haydarpasa Railway Station was constructed. Urbanization in the Acıbadem district started in the middle of the 20th century and the district continues to expand toward north parts from the coastal areas. However, the station region prevents the convergence and mixture of these three neighborhoods. Therefore, the urban character and even architecture of these neighborhoods strictly differ from each other as if they are remote from each other. The isolated island impact of the station region is the main contributor to this issue.

The Station region is filled with factories, warehouses, docks, sidings, and industrial workplaces behind the former station. Walls and fences have been constructed in order to conceal these ugly structures from the surrounding context and the region became an isolated island in the heart of the city. The industrial zone is perceived with undesired feelings and negative thoughts by people. The low quality of the industrial zone arising from lack of maintenance leads to concealing this land from people. They turned into obstacles that are almost impossible to cross and these hurdles detach the station region from the urban fabric. In order to solve this problem, the flyover bridge was constructed to connect two neighborhoods and to eliminate the barrier impact of the industrial area. However, it brought more serious problems. First of all, the bridge creates a visual interruption in the station region and distinguishes the former station from its surrounding urban fabric. Moreover, the gigantic overpass pulls down the quality of the place and becomes a non-attractive place for people.

Compared to many 19th-century railway stations, Haydarpasa is located on the edge of the land. Localization of Haydarpasa Railway Station creates major problems related to the interaction of the station with its surroundings and its effortless accessibility. Since the station is far away from the central area, which includes a lot of service facilities, of the neighborhood, it is not easy to access the station region and the lack of direct accessible connections prevents people to use this industrial area. People have to walk around the industrial factory and follow intricate roads in order to access the main entrance of the station, which is not convenient. Therefore, if railway station was integrated into the rail network, people possibly would choose other transportation modes. On the coast, people have a variety of choices from metro to ferry and bus terminals. Therefore, it is an inevitable necessity to think of the area as a whole.

The most immense and powerful façade of Haydarpasa looks at the sea. Powerful architecture remains a visual element, as an intangible ornament that fascinates the eyes while traveling with the ferry. Even though it is expected that the main façade should have a direct mutual relationship with the urban structure, Haydarpasa Railway Station is far away from meeting these criteria since the most remarkable design remained for visual satisfaction. Furthermore, side facades are elevated from ground level, so people have to go upstairs in order to reach the hall and platforms. Possible interaction with the side façade of the former station and urban structure diminishes in this way. Surrounding industrial structures such as factories and parking lot also pull down the convenience quality of the station region. The abundance of cars in the area causes noise and air pollution while the parking lot creates a visual and physical barrier between the city and the station. The station

Fig.66 | Aerial View of Haydarpasa,
(Çalıkoğlu, 2000s)

building could be best accessed through the coastal promenade, but a non-continuous promenade that is interrupted by walls and buildings prevents easy accessibility. Coastal continuous circulation is an essential issue to attract people to this location.As seen from the map, in the upper part of the station region historical buildings now are used as hospitals and medical universities. Their connection with the coast is interrupted by railroad tracks and an industrial port. Therefore, these historical structures are stuck in the inner part of the land without any connection with the coast. On the other hand, the commuter railway station is about 1 km far away from Haydarpasa Railway Station, but fences and walls avoid the possible connection between the two transportation modes. The coastal area in the land is mainly conceived as a transportation node where people could pick up any possible public transportation. However, Haydarpasa is isolated from the "node" character of the area through various physical and visual obstacles such as walls, fences, and a lack of good quality integration of various transportation modes. Therefore, besides its isolation as a place from urban structure, Haydarpasa is also detached from the transportation system. From the map of public transportation, it could be seen that the station is located in a very strategic location in terms of "node" characteristics. Therefore, its connection and relationship with the coast are essential.
As a result, it is an inevitable requirement to transform this industrial zone into a convergence place of people and a public space where people would reach endless pleasure since the area has very powerful potential as a "place" and "node". By integrating the former station into the existing railway network and strengthening its connection with other transportation modes such as ferry and commuter train networks, the place will be more accessible through public transportation and Haydarpasa would be able to attract people from remote locations due to strong node characteristics. On the other hand, physical and visual obstacles are the main reasons for the detachment of the former station from the surrounding urban structure. Hence, these obstacles need to be removed or their impact should be minimized.

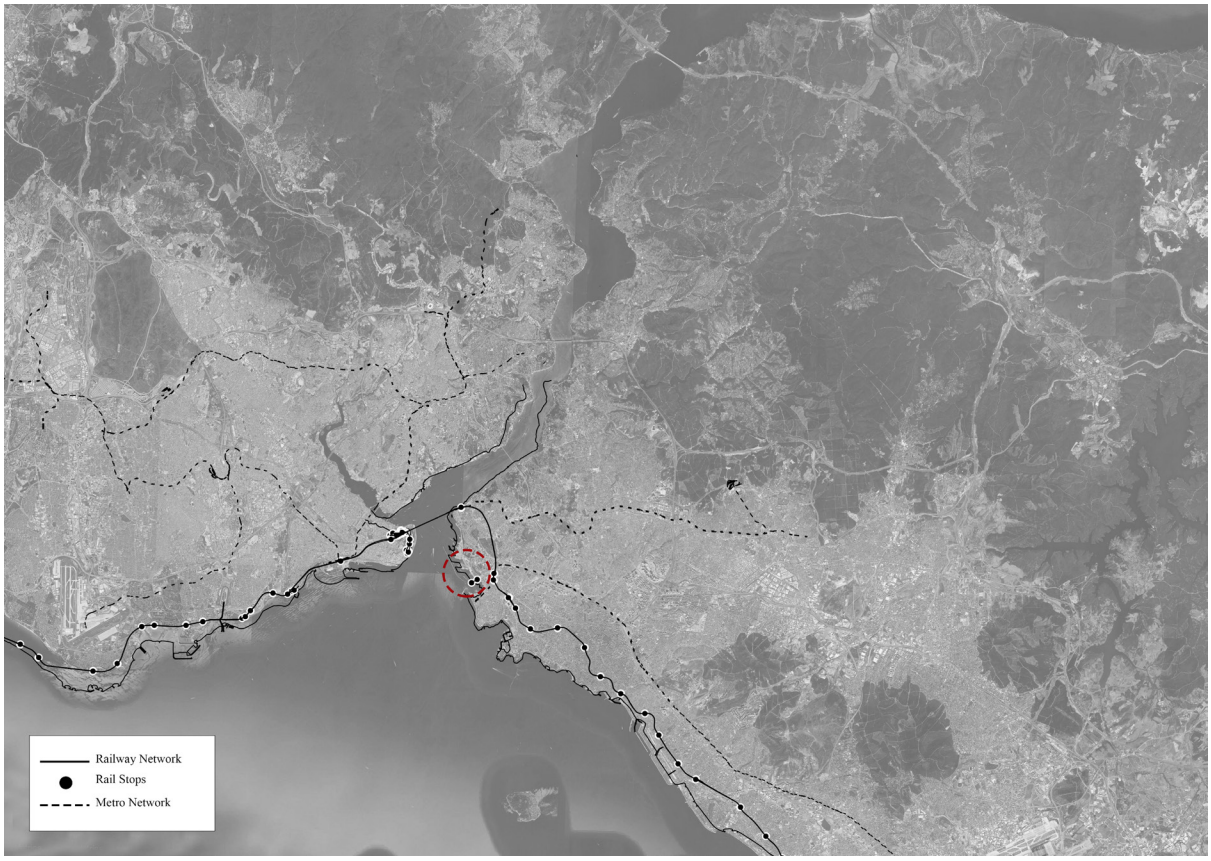


Fig.67 | Railway Network in City
(Servi, 2022)

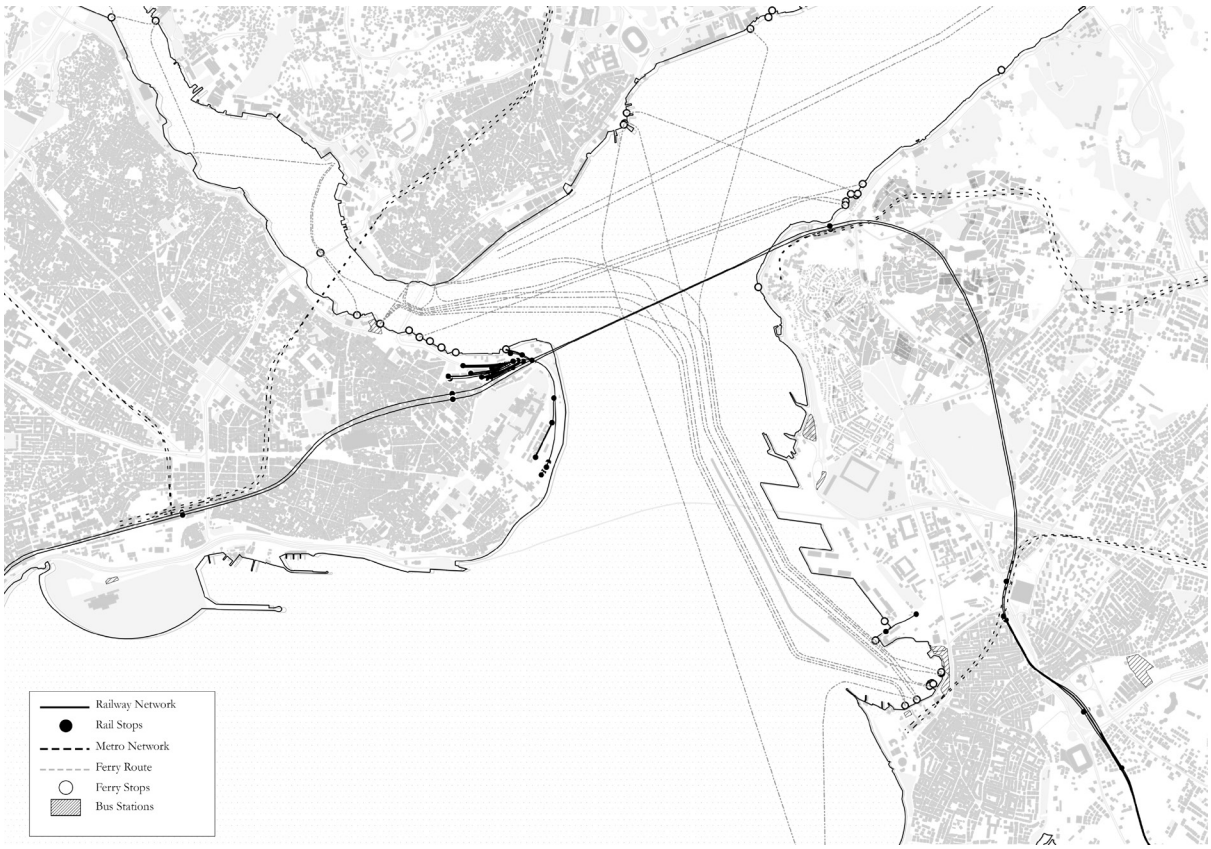
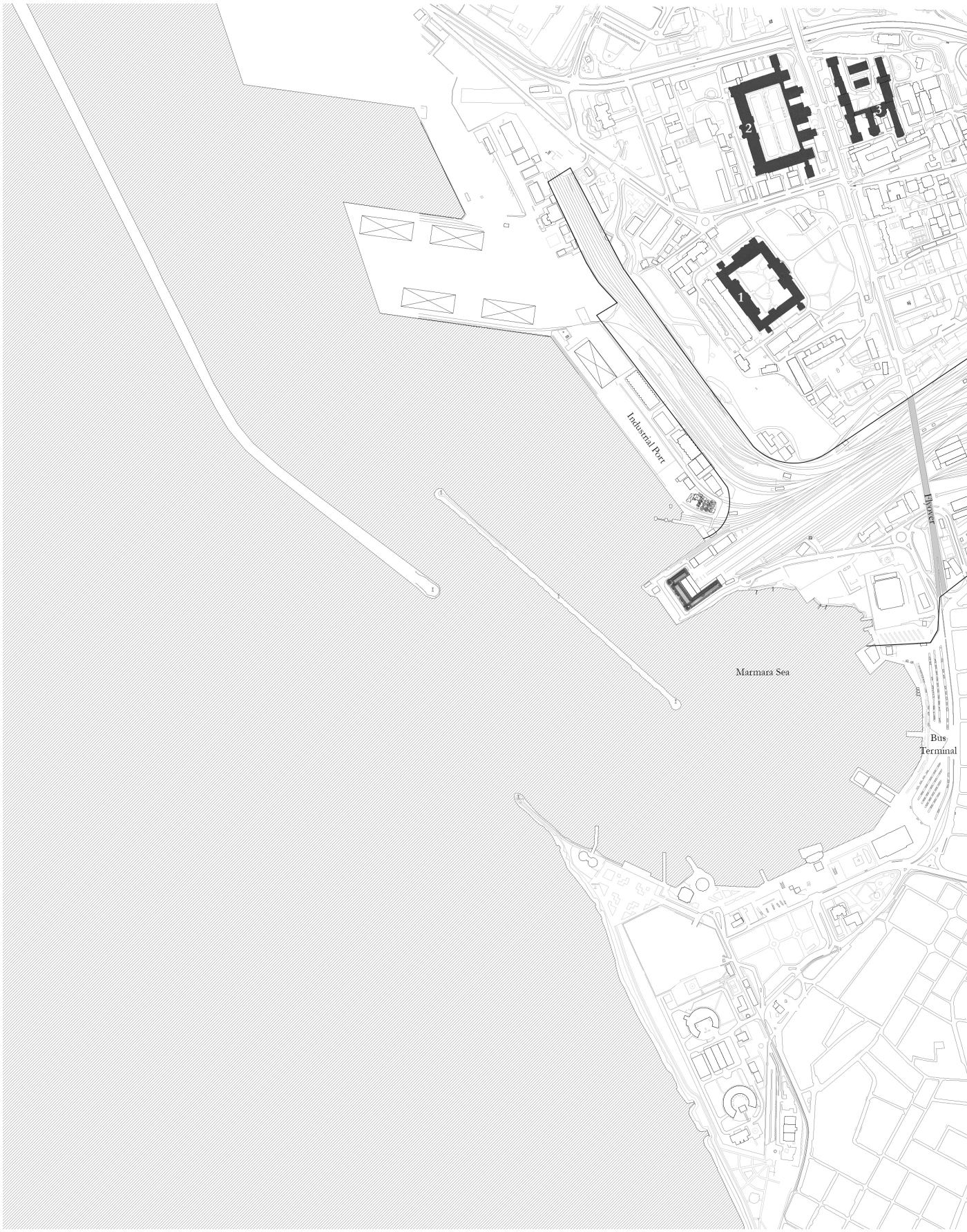


Fig.68 | Node Characteristics of Haydarpasa Railway Station
(Servi, 2022)


1
2
3
Industrial Port
Flyover
Marmara Sea
Bus
Terminal

1. Hospital
2. Medical University
3. Hospital
4. Commuter Train Station

Wall-Fences

2022

Fig.69 | Existing Site Plan
(Servi, 2022)

5.3. Haydarpasa Operation

In order to fit this isolated island into the urban structure, a series of actions were taken in order to solve the problems of Haydarpasa. The initial action is the demolition of the flyover crossing over the industrial land. Instead of a bridge, the connection between two neighborhoods will be established through the gradual ascending sloped street. In this way, both visual and physical connections would be established again and connections between two neighborhoods will be preserved. Moreover, the modern neighborhood which is called Acıbadem would have a direct visual connection with the former station. Haydarpasa industrial zone always has been perceived as a zone that distinguishes the three neighborhoods. However, the project proposes to transform the characteristics of this industrial zone from "separator" to "consolidative". In this way, this land would be a unification and convergence land of the surrounding physical environment. Therefore, the project proposes to create a gigantic 1 km length strip aligned with the borders of the former railway station. Dimensions of the former railway station and its location are respected in this way. Furthermore, its powerful architecture which is visible in elevation is transferred to the planimetric layout which visitors would be able to experience this immensity along a 1 km strip. Through the creation of a gigantic strip, it is purposed to create a new center in the industrial zone that will be the contemporary center in Istanbul. Through the creation of streets, squares, and promenades, the gigantic strip will be crossed in different locations, so possible isolation would disappear.

The tremendous boulevard is divided into two main sections. One of them is the station complex including the former station and new HS train station while another is the green promenade behind the complex. Existing railroads will be dismantled and a linear promenade would be created behind the station complex. The new green promenade aims to attract people from surrounding neighborhoods and lead them to the former station through directional boulevards. People could sit on the grass or could have an enjoyable time while reaching the station, waiting for trains, or for daily purposes and weekend activities. The green esplanade will behave as a buffer zone that would

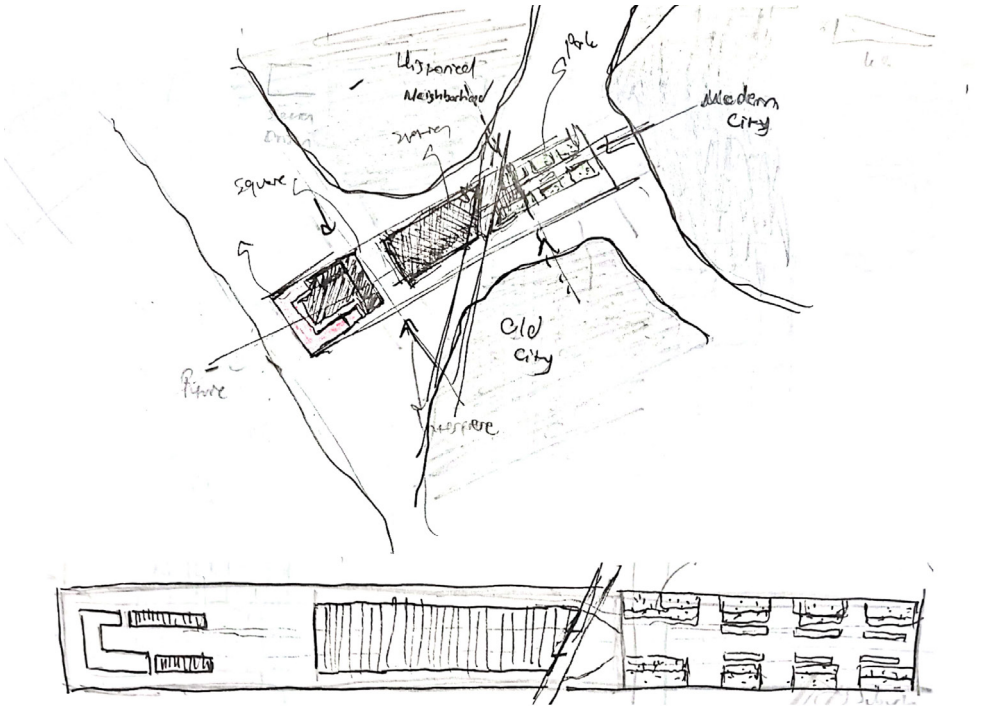


Fig.70 | Preliminary Sketch Site Plan
(Servi, 2022)

avoid any possible noise or pollution arising from cars. People would enjoy the silent and peaceful atmosphere of the esplanade while their connection with the urban structure is still preserved. Moreover, the green esplanade will be a connection strip between the commuter train station and the new railway station, and people could transfer between the two transportation modes by walking among trees and a silent atmosphere. Directional boulevards lead people to the end of the land where they could take the ferry and reach the European peninsula.

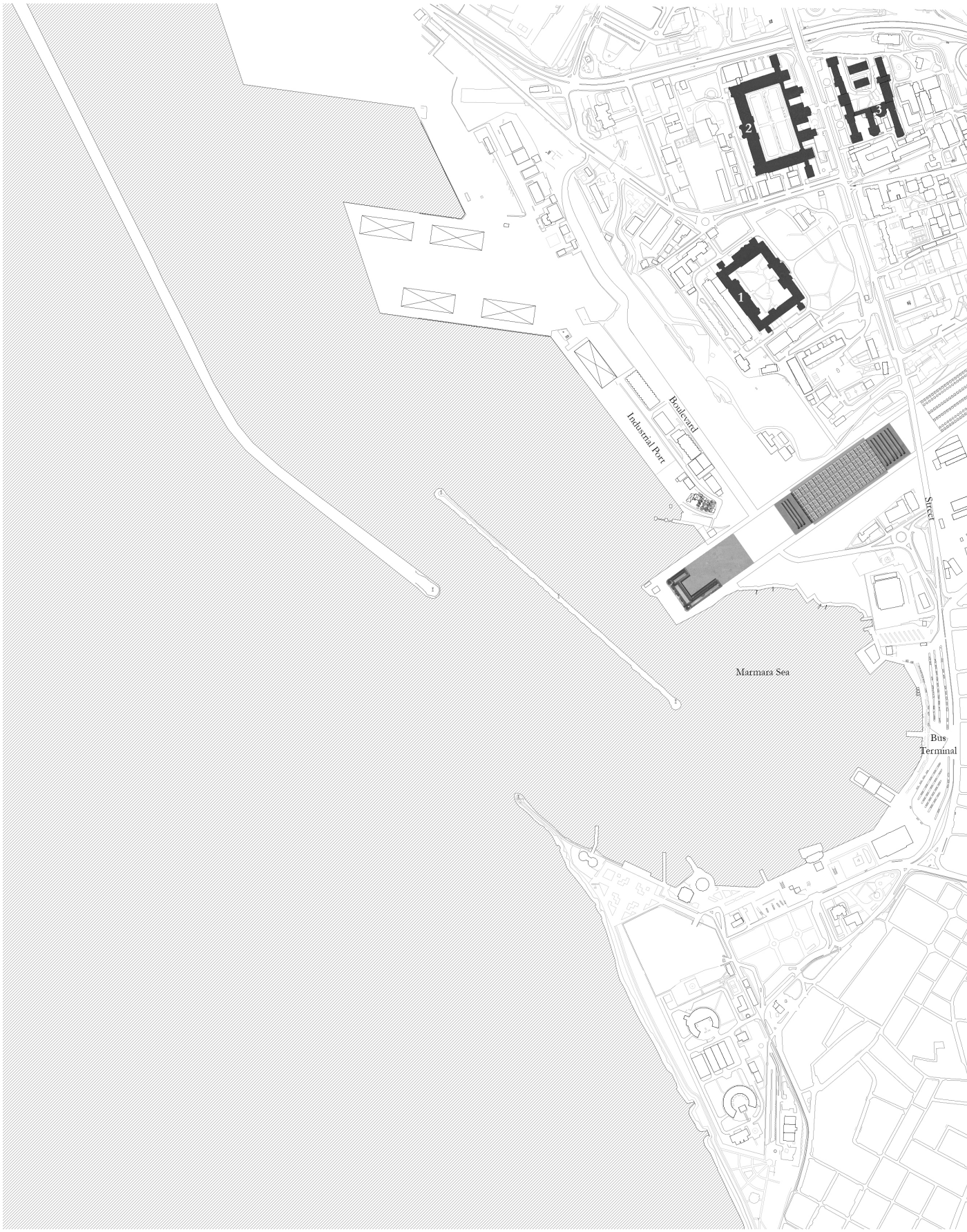
Railroads are the main problematic structures that divide the land into two isolated pieces. The existing railroad layout is preserved to facilitate its integration into the railway network. However, rail tracks will be buried under the ground through a very gentle slope which is two percent of the slope. In this way, a continuous green esplanade is not interrupted by rail tracks and the barrier impact of railroads will be minimized. Through the creation of noise barriers on both sides of rail tracks, the vibration and noises of trains will not disturb the surrounding urban fabric. Industrial sheds and warehouses are mainly preserved in order to not erase the industrial identity of the land. It is significant to maintain the historical identity of the area and instead of demolishing them, they could be renovated and be part of the commercial zone beside the green esplanade. In that way, the perception of people against industrial land could change positively.

One of the major issues with industrial land is its lack of connection to the urban fabric. The enormous strip will be crossed in different spots by the construction of streets, squares, and promenades, which will disappear any possibility of isolation. Aside from the sloped street, a new public plaza is being developed between the original former station and the new HS terminal, which will serve as a new contemporary center of Istanbul. Industrial land facilities disrupt the uninterrupted coastal connection. The coastline promenade will be incorporated into the new public plaza, and a boulevard will be built on the upper part of the station complex to strengthen neighborhood connections. This boulevard will also connect to the industrial port, which will be transformed into a public space in the future. Historic buildings towards the north of the station complex are now used as hospitals and a medical university. They were constructed in the nineteenth century for medical purposes. They don't really, however, have accessibility from the nearby region, and their interaction with the coast is hampered by the port. Therefore, in the future, these hospital facilities could turn into hospital museums and educational public centers that will encourage public inclusion in this area. In this way, more people could exodus toward this land and use it as a part of daily life and the negative profile of land will reverse through renovation and readaptation of existing buildings.

Haydarpasa Train Station and its environment will be linked to the urban fabric both as a "place" and a "node" as a consequence of these actions. Transportation connectivity is enhanced through the building of additional streets and boulevards, whereas "place" identity is significantly improved through the addition of new functions.

5.3.1. Detachment

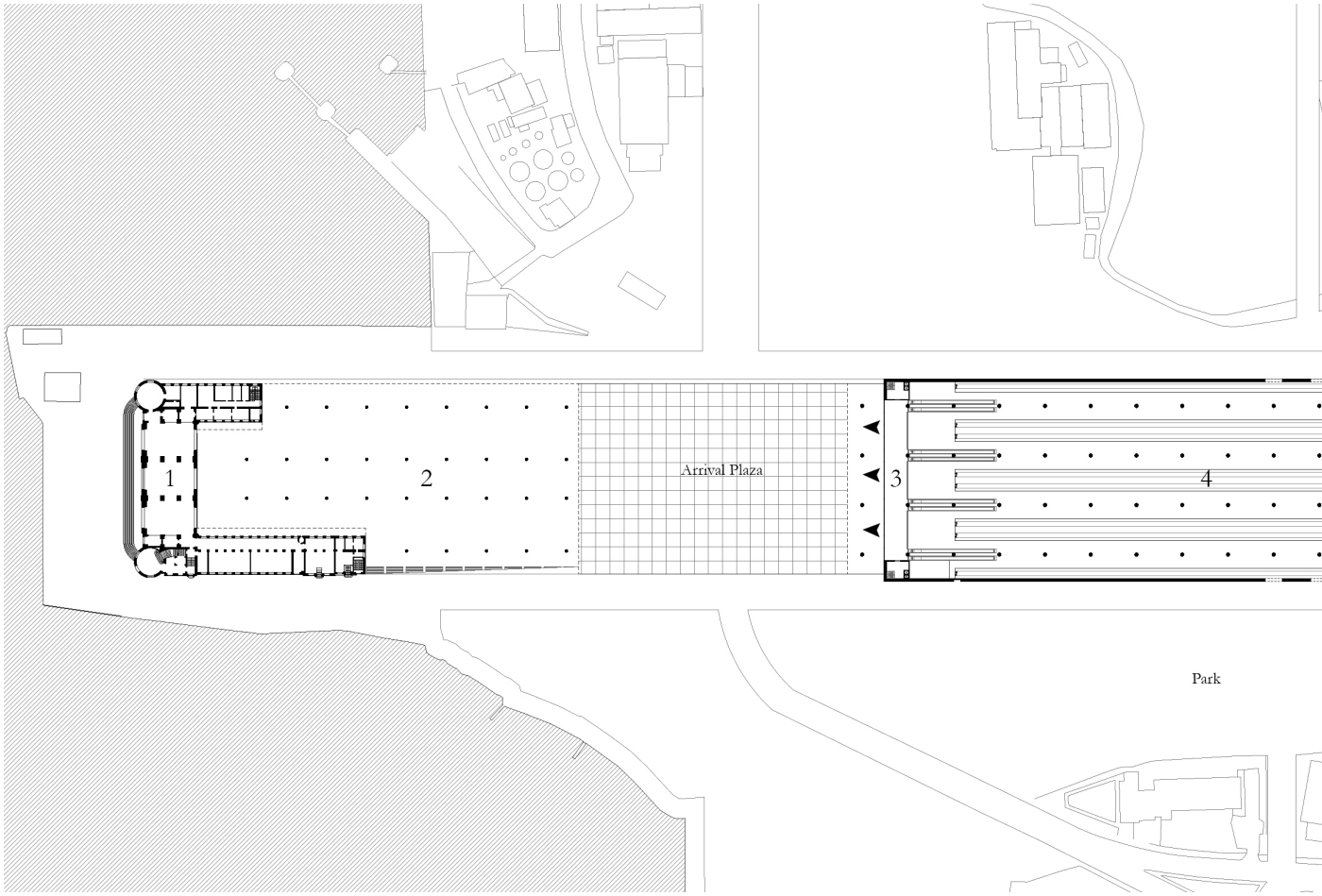
The project is developed on the concept of detachment. A new High-Speed terminal will be detached from the original station, in this way, a new contemporary public center will be created between the old station and the new station. Railroad stations, during history, had synthesis architectural typology which consisted of two main architectural lobes. The first lobe is the classical volume which mainly adopts classical forms and materials. Due to their classical appearance, they are mainly used to create a familiar atmosphere for passengers and to fit the urban fabric of 19th-century cities. These volumes are dedicated to departure halls and entrances. The second


1
2
3
Boulevard
Industrial Port
Marmara Sea
Bus
Terminal

1. Hospital Museum (Possible)
2. Educational Center (Possible)
3. Hospital Museum (Possible)
4. Commuter Train Station

Future

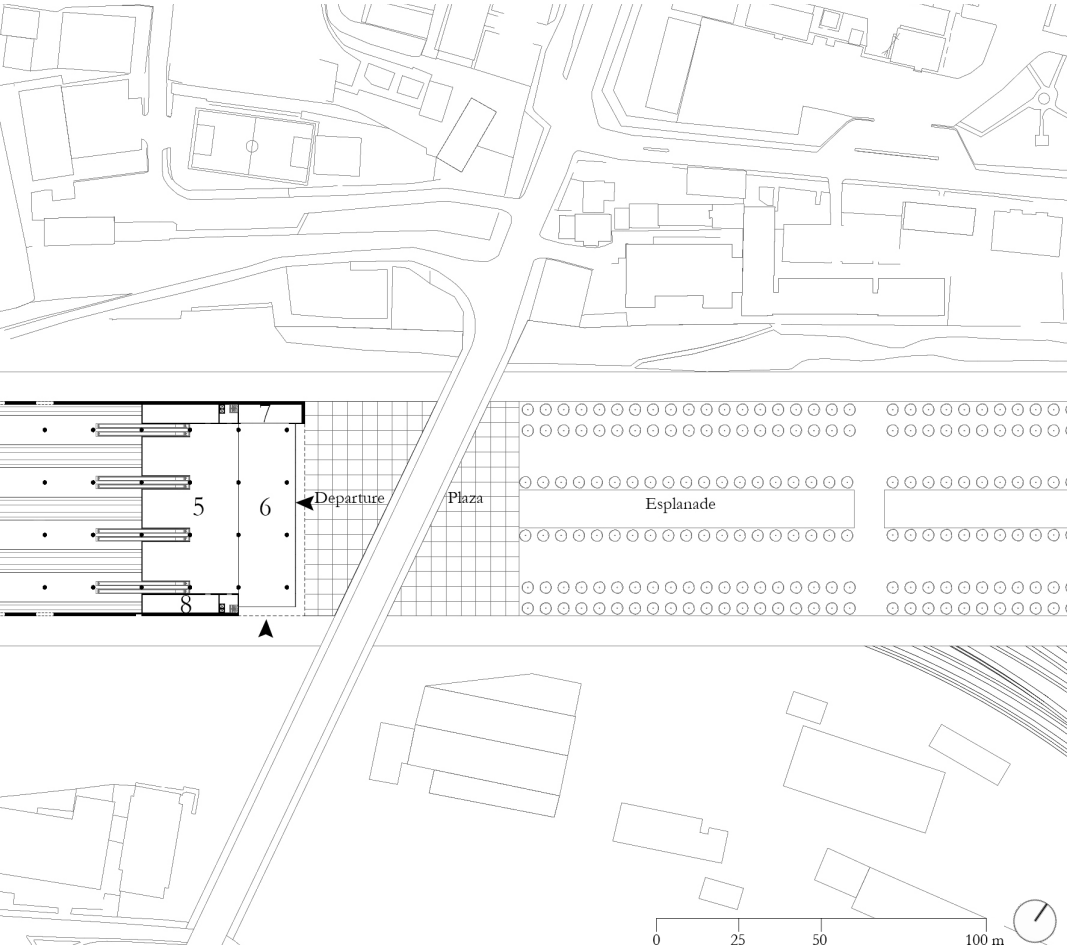
Fig.71 | Proposed Intervention Site Plan
(Servi, 2022)



lobe is the metal superstructures of industrial volume which includes platforms, trains, and sheds. Industrial lobes are new things that people are not familiar with, so they have always been sugar-coated behind classical facades. These two lobes have opposite meanings in terms of function and quality. While classical volumes principally symbolize dignity and stability with material and form, industrial volumes are the places where dynamism never ends up. Haydarpasa Railway Station had the same two lobes. The exterior façade had been covered with heavy stones to give the building a masonry construction appearance and to fit the building into the urban fabric of Bosphorus Strait. The U-shaped form is the classical volume while the industrial volume extends behind the stone massive volume.

The project preserves this duality between classical volumes and industrial volumes. The former station, thus, is left as it is in place while the industrial volume is detached from the classical volume. The separation of two volumes is a physical emphasis and manifestation of the two lobes' character of the railroad stations. Industrial volume is no more part of the classical volume, they work as apart structures as they always used to be throughout the period. Functions related to the railway station are moved to the new terminal building and it is designed to meet the requirements of high-speed trains. Its length and width dimensions are adjusted according to high-speed trains. Furthermore, the floating industrial roof that is attached to the historical former station is a trace that some part of the industrial lobe still is existed inside the classical volume.

In order to transform industrial volume into a hedonistic place where passengers are able to experience joy and enjoyable feelings, the project was designed in the framework of five com-



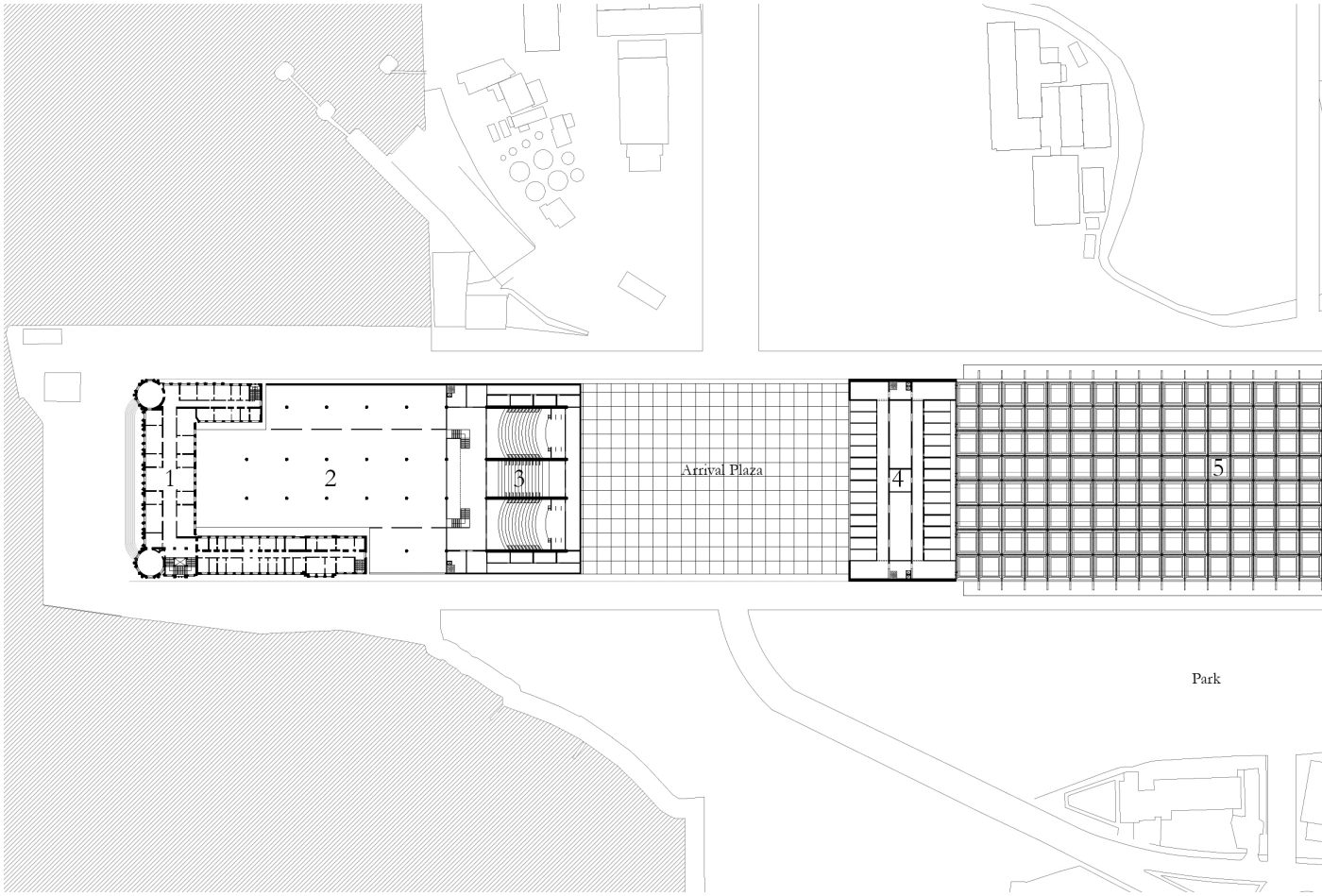
1. Former Station-Cultural Venue
2. Sculpture Hall
3. Arrival Concourse
4. Platforms
5. Departure Hall
6. Entrance
7. Ticket Office
8. Commercial Services

Future

Fig.72 | Ground Floor Plan
(Servi, 2022)

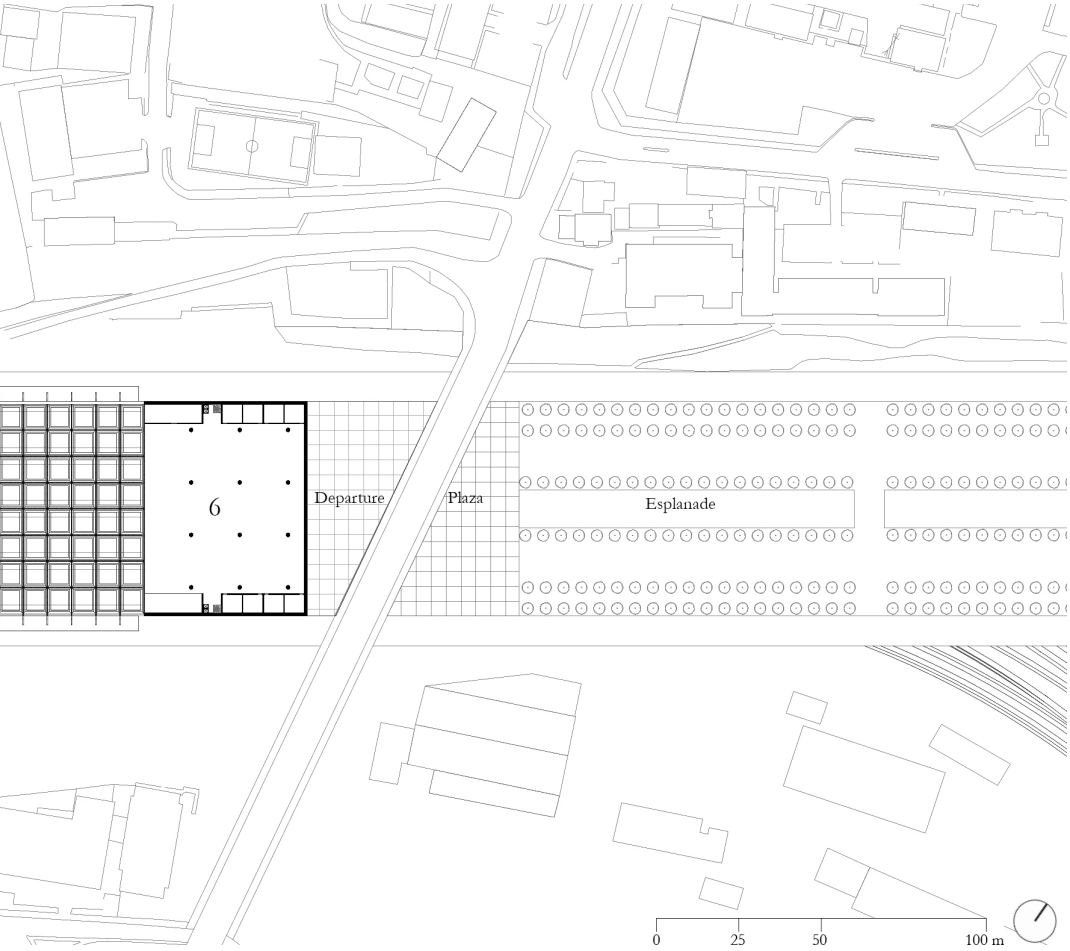
plements that could provide pleasure. Effortless accessibility, hence, becomes the primary factor shaping the project. In the design of the former station, departure and arrival passengers were using the same façade for circulation. However, it is not convenient to encounter the clutter of people while entering or leaving the station building. Therefore, departure and arrival terminals are located on the opposite edges of the platforms. Arrival passengers will be able to evacuate the station building easily while departure passengers have more space to wait for their train hour. Priority in the project has been given to arriving passengers. When travelers arrive in a new city or unknown place, their minds become free and they have plenty of time to visit and explore the city. On the other hand, the mind of travelers leaving the city is busy with the urgency to catch the train so they are not able to spend long hours and completely enjoy this hedonistic public space. Therefore, open public space between the old and new stations is dedicated to arrivals. This action contradicts the traditional railway station design because the best and larger place always is left for departure passengers. However, arriving passengers have more opportunity and time to enjoy this new hedonistic public space. Priorities are reversed. Another result of separation is the creation of a one-way pedestrian flow. All types of passengers will move in the same direction, towards the former station. This situation will create a visual attractiveness as if all people exodus toward the former station and new public plaza, which will increase the importance and historical building will be apotheosized in the mind of people. The directional movement of people will attract more citizens toward this location. Moreover, the departure terminal has a welcoming square for passengers. The green esplanade directly leads to the station building.

The station building has eight platforms 160 meters long and 10 meters wide. Platforms are locat-



ed at the underground level, which is 5 meters below ground level, and passengers access or leave platforms through mechanical ramps. In the departure terminal, there are two entrances, one is from the green promenade and the other is from the south of the station complex. In this way, departure passengers easily recognize the entrance terminal. The central area of the terminal is conceived as the hall, so people could wait for their trains while lingering on balconies. On both sides of the hall, there are service facilities. The arrival hall has a shorter length and passengers quickly leave the station and they encounter a public plaza and floating roof. Beneath of floating roof is designed a hall directing people toward the former station.

Railway stations are complex structures including stations, hotels, halls, and offices. The prominent ecosystem of railway stations is integrated into the design of the project. Offices and hotels are placed on upper floors on different terminals. While management and administration offices related to station and transportation are placed on the upper floors of departure terminals, the hotel is placed on the arrival terminal in order to accommodate newcomers. They could easily access to concourse through mechanical ramps and, if they wish, they could access the hotel through circulation hubs on both sides of the terminal. In this way, they could relax before enjoying the city. On the other hand, people access the historical building through the sculpture hall beneath the floating roof. The connection and interaction between the floating roof, which would be the part of the former station for exhibition galleries, and the historical station building will be established through the use of circular columns and the same material on the exterior. In this way, people could understand and estimate the similarities between the two lobes of the railroad complex. While 1.2 meters columns support the station building, their dimensions diminish to 1 meter un-



1. Former Station-Cultural Venue
2. Exhibition Gallery
3. Performance Space
4. Hotel
5. HS Railway Station
6. Offices

Future

Fig.73 | Floating Roof Level, Floor Plan
(Servi, 2022)

der the floating roof. It is created two opposite condition, which is dynamism in the HS terminal and serenity under the floating roof, with the same element.

The former station is transformed into a cultural venue, and the original plan layout is preserved. The floating roof becomes a complementary puzzle piece of non-symmetrical station form. The cultural venue includes a variety of programs ranging from exhibition galleries to multimedia rooms and performance halls. All activities such as library use, and the sculpture hall on the ground floor are open to public utilization, so the inclusion of communities will be promoted. While the original station is conceived as a serenity place, dynamism is encouraged in the new station building. Passengers could easily move inside the station and between levels through ramps and lifts. Trains create a dynamic spectacle that never ends up. On the other hand, dignity is the dominant character of the former station. Since the former station is elevated from ground level, accessing the sculpture hall is an obstacle, which avoids turning this open hall into a circulation center. Both to eliminate the level difference between the ground level and the sculpture hall, and to preserve the dignity of the character of the place, stairs are created between the two levels. Thus, people have to slow down before entering the hall. Nonetheless, the arrival plaza is a place where intensity and diversity exist, so boulevards running on both sides of the plaza will descend with a gradual slope. In this way, people are able to access the arrival plaza without any obstacles while they have to slow down when they wish to reach the sculpture hall. As a result, two opposite characters of classical volume and industrial volume will be created. Intensity emerges without congestion or chaos while the arrival plaza converges diverse profiles.

5.3.2. Lobotomy of Station

Lobotomy is a medical term that is used to define the surgical operation involving an incision into the prefrontal lobe of the brain to treat mental illness. On the other hand, Rem Koolhaas alleged the term of architectural lobotomy term which is used to describe the physical, theoretical and symbolic separation between the exterior and interior of a building[83]. The Exterior speaks another language while the interior is completely different. This term is mainly asserted to define the duality between interior and exterior in skyscrapers in Manhattan. Railway stations have similar characteristics and carry similar design decisions to skyscrapers in Manhattan. Especially during the first boom of the skyscraper phenomenon, these enormous extrusions had been speaking a similar language from the exterior appearance. They had a serious and demure appearance with their glass, steel, and concrete combinations. Nonetheless, the interior did not have to speak the same language as the exterior, it could be a vivacious atmosphere or the interior space could have diverse functions. In this case, the exterior becomes the demure suit of cheerful interior atmosphere and design.

The same situation exists in the design of railway stations. As stated in the previous section, they have two lobes which are classical volume and industrial volume. The station building is a typology remaining between architecture and engineering. Mostly, the building including entrance, halls, and service facilities is architecture, on the other hand, metal superstructures behind classical and familiar architecture represent engineering. Duality in station buildings always exists and will continue to exist. Both lobes work together. In the past, architecture and engineering had been sharing almost similar rates in the construction of railway stations. They were blending with each other. However, during the contemporary era, the share of art and architecture in railway station design diminished. Station buildings transform superstructures transportation that engineering attains priority. They became "non-places" which promote dynamism. The architecture lobe begins to disappear from station buildings.

Detachment of train stops from the former historical station is a lobotomy operation. 19th-century building as classical volume is detached from metallic superstructures and two lobes of the station now work as separate buildings. There are no more screen facades that deceive people and conceal reality. Citizens and passengers are able to understand the anatomy of railway station buildings, which gives them the confidence to attract them. Action displays that railway stations always consists of two apart lobes and their function differ from each other. The classical lobe and industrial lobe of Haydarpasa Railway Station are displayed through detachment action in which the floating roof is left as a part of the industrial lobe behind the classical volume. The lobotomy between the HS terminal and the historical station is enhanced through the use of aluminum material. The metal structure becomes the prompter, that speaks to citizens, of classical volume. Two lobes are also emphasized with the use of material and with forms. Plaza between two lobes becomes a convergence place, a transition zone.

Railway stations are always perceived and remembered as serious and demure buildings, which are not expected to make people happy and enjoy these boring metallic structures. However, metal could inject happiness into people through its forms and meanings. Haydarpasa Railway Station, hence, will be the proof of how forms and materials could speak to the public instead of being mere blind façades.

83 Rem Koolhaas, *Delirious New York: A Retroactive Manifesto for Manhattan*, (New York: The Monacelli Press 1997)

In previous sections, it was stated that the main and most magnificent façade of the former station looks at the sea, so it could not act its main function, to emphasize entrance. Therefore, this façade will be moved to the south façade of the new HS terminal, which is reasonable action since the south façade is the main surface interacting with the central area of the neighborhood. The south façade, hence, will work as a prompter of the former station. The primary façade of the original station has two towers erected on both sides while the central part is divided into three main sections which are entrances with three openings, middle and roof section. Although the two towers look identical, the arms behind them have apart lengths. Therefore, the south façade of the HS terminal is divided into three parts which are the central part as the station and two higher volumes as departure and arrival terminals on both sides. The height difference concretizes the hierarchy between arrival and departure terminals. The arrival terminal has a blind façade, but the departure terminal gives clues about what is happening inside through the glass entrance on the south façade. In this way, people could easily understand the function of buildings and by visiting the former station they could establish a bond between old and new. Also, two terminal buildings are detached from the central part with delicate intrusions.

As a reference to conventional design, which conceals the trains and platforms, of railroad stations, the blind sanded aluminum curtain wall façade hides the events behind it. In this way, the façade becomes an almost opaque surface with minimal blurred reflections. However, through delicate small openings and extrusions, the building conveys a message about its interior. People will be able to understand what is happening inside the building, which would people curious. They will see columns, roof structures, and trains. When they come closer, details they could recognize increase. The canopy on both sides of the terminal building covers the boulevards and invites people toward the building by creating sheltered space, which enables people to experience the station with a convenient and satisfactory atmosphere. Another detail is the extrusion of I profiles beneath the canopy. It could be understood as the structural material of the building. Instead of showing them purely, the project gives these details very delicate and artistic way, thus the serious and demure appearance of the station disappears. It is essential to note that the station still preserves its main identity, to be a station. Compared to many contemporary station designs, which elude station identity for the sake of aesthetics and intricate designs, the project intends to show station could become an enjoyable and attractive building without losing its own identity and character. People could hear the voices of trains and they can watch the interior as if they watch a performance instead of escaping from them. In this way, the railway station gains soul and speaks to citizens.

Since railway stations always are correlated with metallic structures, aluminum becomes the principal material in the project. The central part of the HS terminal façade interprets the main façade of the former station. The façade is divided into three sections horizontally and vertically. Three

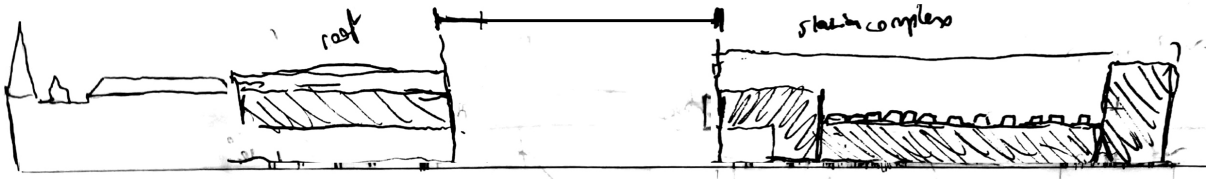
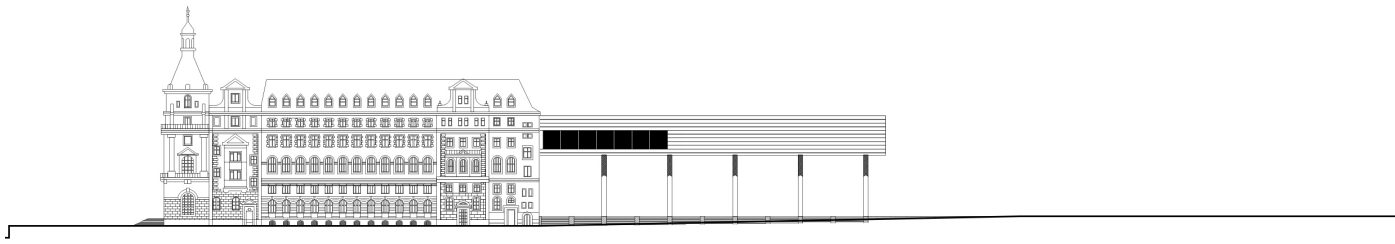
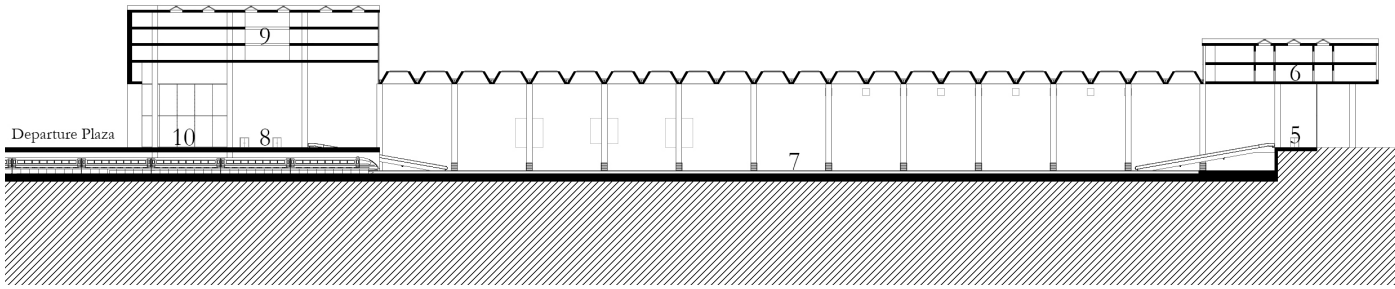


Fig.74 | Preliminary Sketch Elevation
(Servi, 2022)



openings are located on the right side which is close to the departure hall, while small windows on the upper level are placed on the left side. The symmetrical and ordered design of the former station is distorted and all ornamental elements were erased, the remaining parts purely convey the main message about the building. There are three openings, as in the former station, where people go and watch the interior of the station as a spectacle. The middle opening is designed as a window to connotate the main feature of former station design decisions. Roof windows do not enable people to see the interior, but still, they could hear a voice related to station identity. The voice of trains gradually diminishes toward the arrival plaza and people slowly reach dignity while, on the other hand, the departure terminal is remembered with dynamic quality.

In terms of height and alignment of openings and windows, the project respects the design proportions of the former station. The departure terminal which is the highest volume in the project is aligned with the roof of the former station while the extrusion of the arrival terminal ends up on the level at which the former station roof starts to rise. In this way, the historical building still is the most important volume in the complex through its gigantic twin towers. Moreover, the stone heavy wall of the historical station works with metallic walls of the industrial lobe. Floating roof



1. Original Former Station 2. Floating Exhibition Gallery 3. Performance Space 4. Sculpture Hall 5. Arrival Concourse

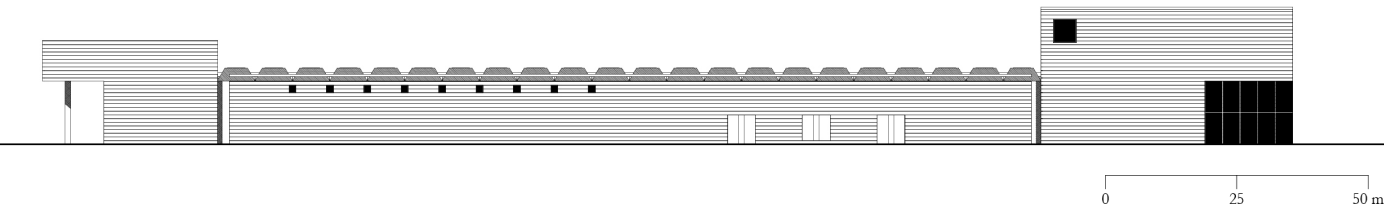
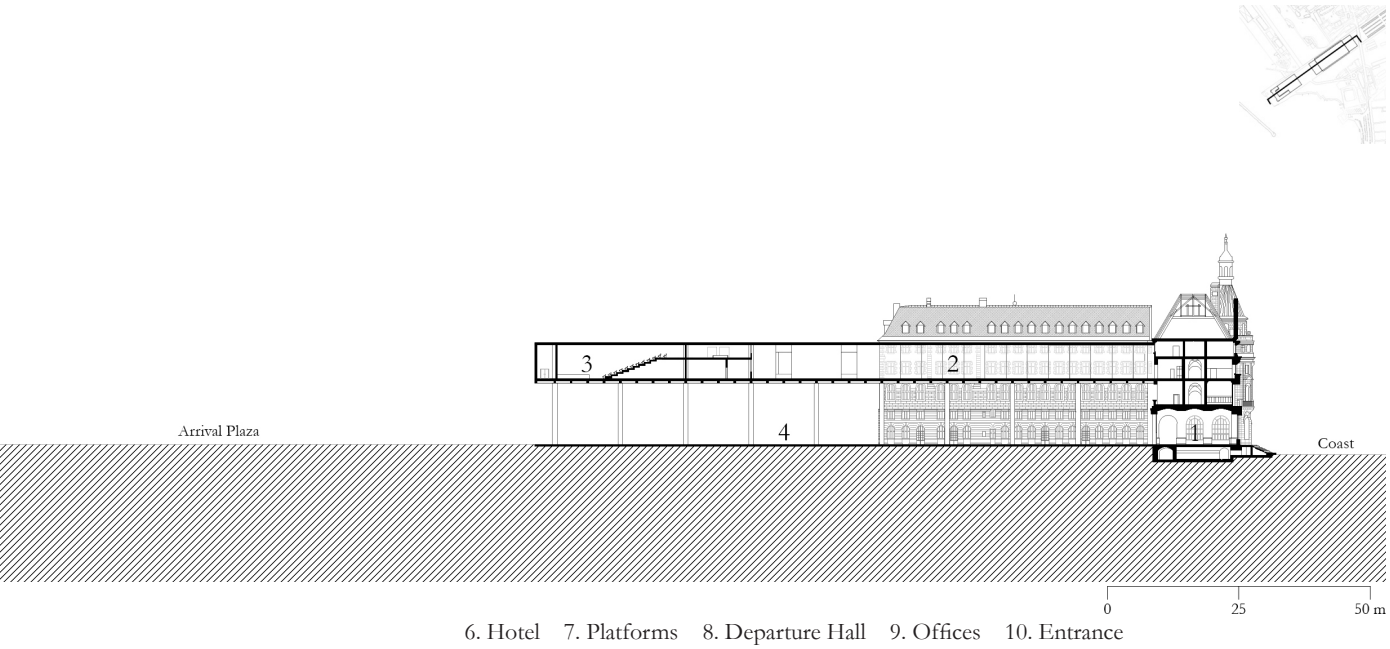


Fig.75 | South Elevation
(Servi, 2022)

still continues to have existed as part of the industrial lobe attached to classical volume. It has the same qualities as the HS terminal. It strongly conveys a message of detachment. Displaying circular columns and the use of the same aluminum curtain wall cladding facilitate establishing a relationship between the floating roof and station complex. Therefore, the left part of the arrival terminal volume is cut and the column is displayed purely to express that it is part of the floating roof. Cut place also coincides with the exit of arrival passengers. Lobotomy between classical and industrial volume is emphasized with dynamism and stability of forms.

The project is designed as a journey to free up all negative thoughts in the mind of people and inject them with pleasure and happiness. Due to the gradual slope of the railroad, passengers do not see the buildings in the station complex completely from the exterior while the train goes slowly through the underground tunnel. When the train goes under the ground, travelers will be plunged into darkness for a short time, as if they close their eyes. When the train reaches the platforms, passengers open their eyes and confront the bright atmosphere of the interior beneath gigantic skylights. Freeing up the minds of people from all negative thoughts is crucial for them to experience joyful feelings in this exodus center. Therefore, the project eludes all possible direct and ex-



6. Hotel 7. Platforms 8. Departure Hall 9. Offices 10. Entrance

Fig.76 | Longitudinal Section
(Servi, 2022)

plicit historical and political references that could reveal negative thoughts and stress on the mind of passengers. Being a "non-place" station building encourages dynamism and movement through directional platforms and effortless accessibility. The gigantic skylights reveal exalted and serenity feelings by reminding skylights in ecclesiastical buildings in a subtle way. Hence, passengers open their eyes to a new world by leaving all negative thoughts in the darkness of the underground tunnel. The newcomers move, in a synchronized way with other passengers, toward mechanical ramps as if they migrate. The station building becomes a gateway, entrance hole for arrival passengers, they follow a directional route among gigantic circular columns as if they pass through the nave of a church, mosque, or gateway of a roman forum to reach the chancel. These metaphors remain implicit and abstract, so passengers will not be able to make a direct correlation with vernacular buildings and understand them in the dynamic atmosphere of the station. However, implicit and undefinable feelings will remain in their mind. When the ramp slowly ascends, their eyes catch the ceramic cladding head of the floating roof. The floating roof symbolizes freeing up from all negative thoughts and leaving them behind.

The longitudinal section displays the diversity of functions along the journey. On the upper floors of the departure terminal, office rooms are placed whereas the hotel enables arrival passengers and citizens short stay accommodation and to extend their enjoyable experiences. The roof that covers the platforms is the most distinctive quality of the station complex. Roof emphasizes the uniqueness of the middle part compared to other volumes. Industrial character in this way explicitly is displayed and the roof conveys the message that this volume is the station. Passengers approaching the station building through the green esplanade, have a direct and uninterrupted view from the departure plaza to the floating roof. The floating roof becomes a volume grabbing the attention and becomes the most attractive volume in the complex. Both hotel and office rooms are illuminated through the skylight, and in order to provide more brightest interior atmosphere, glass facades looking at trapezoid skylights get natural light.

When newcomers leave the station building, they will experience the crowded and dynamic atmosphere of the open public plaza. The ceramic cladding head of the floating roof both emphasizes the detachment and becomes an attraction element for travelers. The newcomers could make the correlation between the station building and the floating roof. Circular columns supporting the roof frame three entrance doors of the former station. Whereas the central frame is dedicated to sculptures, circulation continues on both sides of the central court. They could enjoy the art with the dignity atmosphere of the floating roof. Unlike the dynamic anatomy of trapezoid skylights of the station building, the ceiling of the floating roof has a smooth and flat appearance that provides serenity and calmness. The original hall function of the former station is preserved and the vast space maintains to function as a gathering place, on the other hand, ticket offices function as ticket offices of the museum.

Design of trapezoid skylights derived from the shape of the original station roof. The 19th-century station building has trapezoid roofs that cover long and short arms. They are constructed with steel structures. In order to maintain continuity, but in a subtle way, between classical volume and industrial volume, the trapezoid roof is reduced in size and reinterpreted as skylights. Although columns and roof structures appear as if they are detached from each other through light and dark colors, this structure is monolithic steel construction. 20 meters long columns rising from the platform level prove the power, strength, and durability of steel material. Detachment of column from the roof through color, reveals clearly the power of steel and exaggerates it as if one column carries a gigantic roof structure. Roof and column become independent architectural elements.

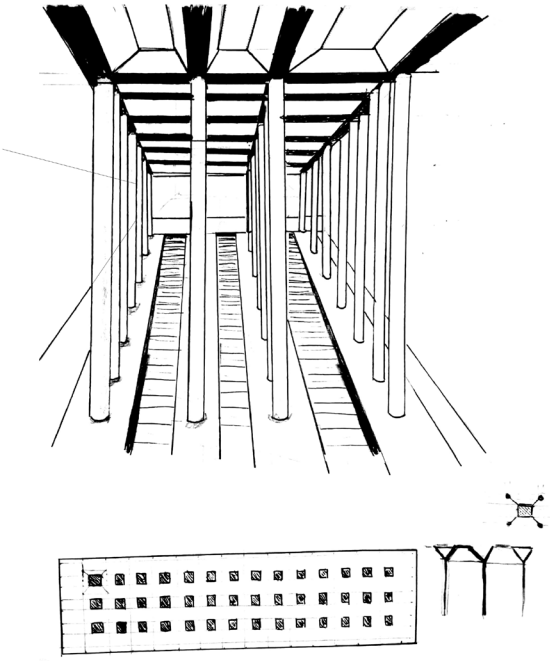


Fig.77 | HS Terminal, Preliminary Sketch
(Servi, 2022)

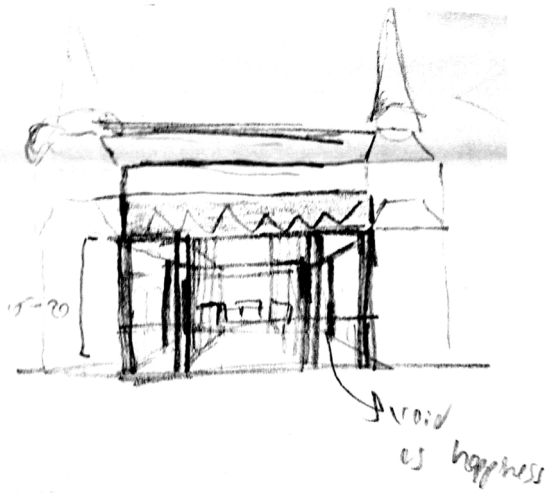
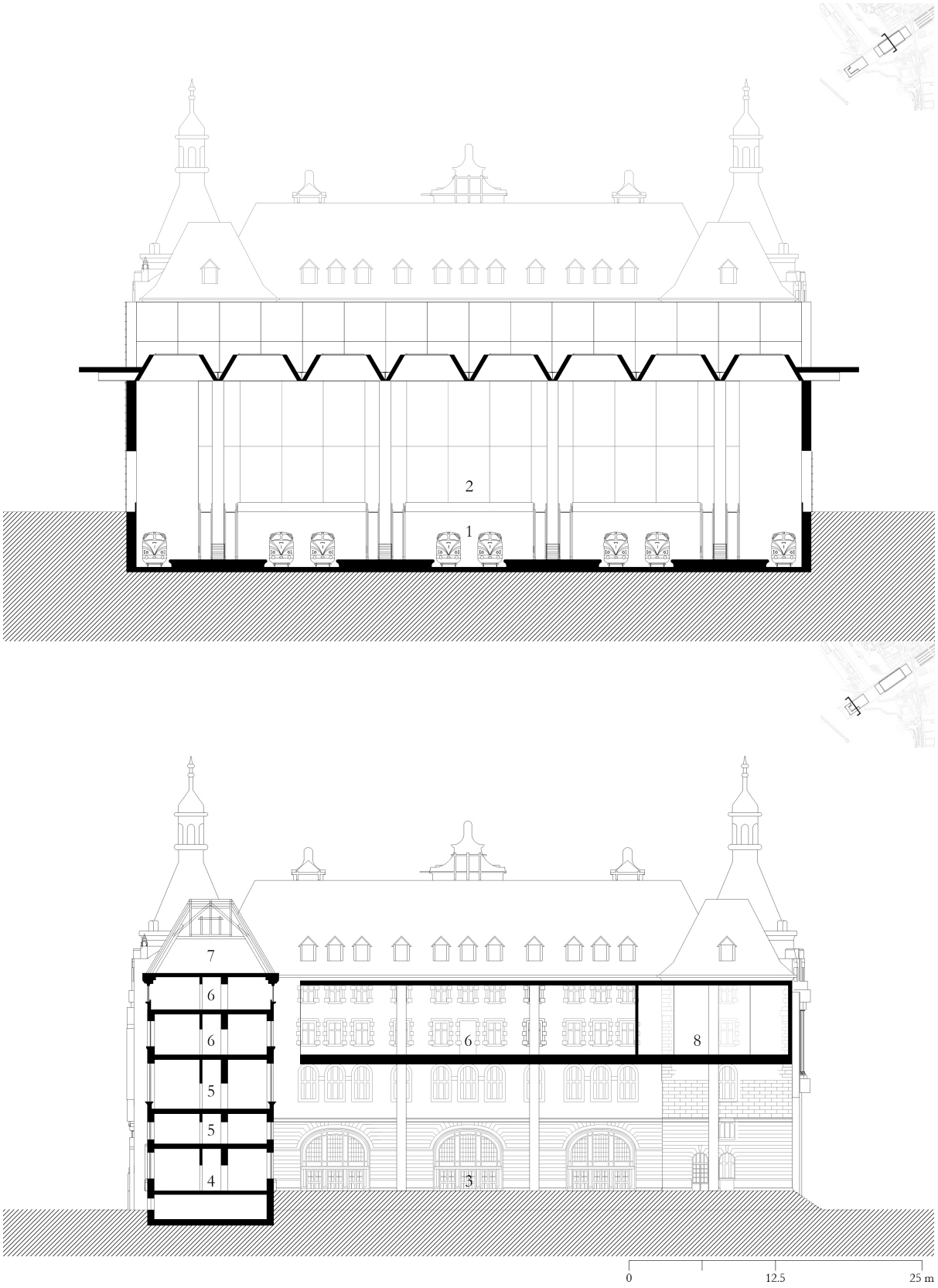


Fig.78 | Floating Roof, Preliminary Sketch
(Servi, 2022)

The lightness of columns with their white color and the massive appearance of the roof with concrete emerges a contradictory condition. Even though passengers walk among the gigantic forest of columns, their eyes look even unwillingly at the darker material of trapezoid skylights. Most of the newcomers probably will not remind the columns. Therefore, the crowd impact of columns is eliminated. Dendriform type of column-roof structure creates a monolithic and stronger structure that works as a whole. However, with delicate details I profiles are displayed with a darker color than concrete, which gives clues about structure.

The dignity atmosphere inside the HS terminal is supported by a contrast light-shadow effect. Primary natural lighting sources are skylights and openings on the façade. Instead of creating constant bright interior space, the project proposes dramatic shadows and diffused lights during different periods of the day. In this way, the atmospheres experienced in the morning and afternoon will be different, which reveals an unexpected situation. For example, during the early hours of the morning, people see the morning sun's warm orange-yellowish colors casting on white steel columns and reflecting from metal railroad tracks. The trapezoid roof remains relatively in the dark, while columns and platforms are in the foreground. On the other hand, in the middle of the day, sunlight penetrates the station through skylights, and the white-yellow color of the sunlight illuminates the concrete texture of the roof. The roof elements become the most prominent entity. During different periods terminal presents different spectacles for its passengers, so in this way, it is prevented a monotone atmosphere.

The framed spectacles create implicit past connotations in the mind of people. The purpose of design is to prevent explicit and concrete forms that wipe out the imagination ability, which is important to give them this freedom. Otherwise, all possible metaphors would be suppressed and the station would remain a serious and demure building that does not reveal any interpretation.

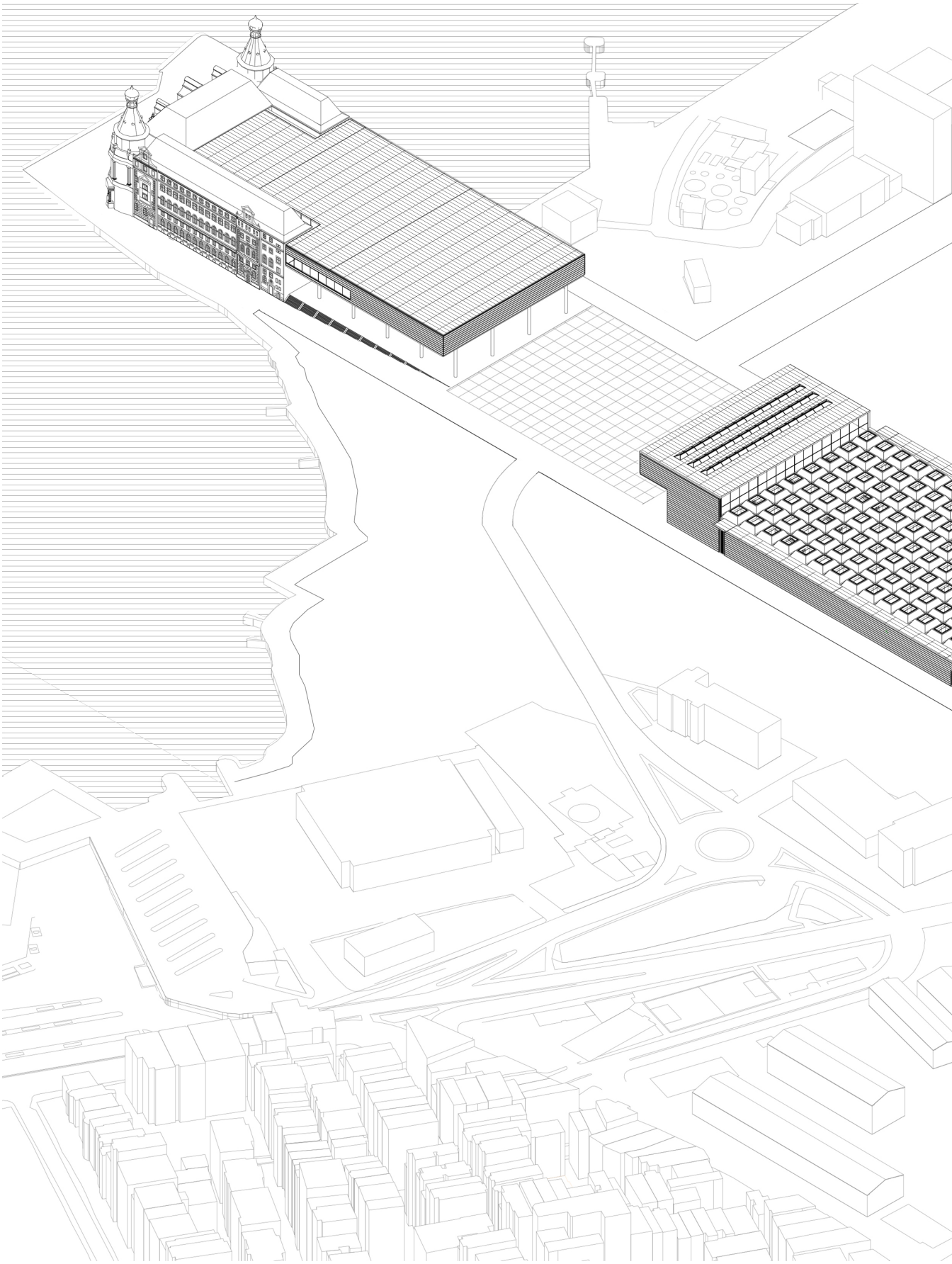


1. Station Platforms 2. Arrival Concourse 3. Sculpture Hall 4. Library

5. Permanent Exhibitions 6. Temporary Exhibition Gallery 7. Attic Vista 8. Multimedia Room

Fig.79 | Transversal Sections
(Servi, 2022)

Fig.80 | Serenity Inside HS Terminal
(Servi, 2022)



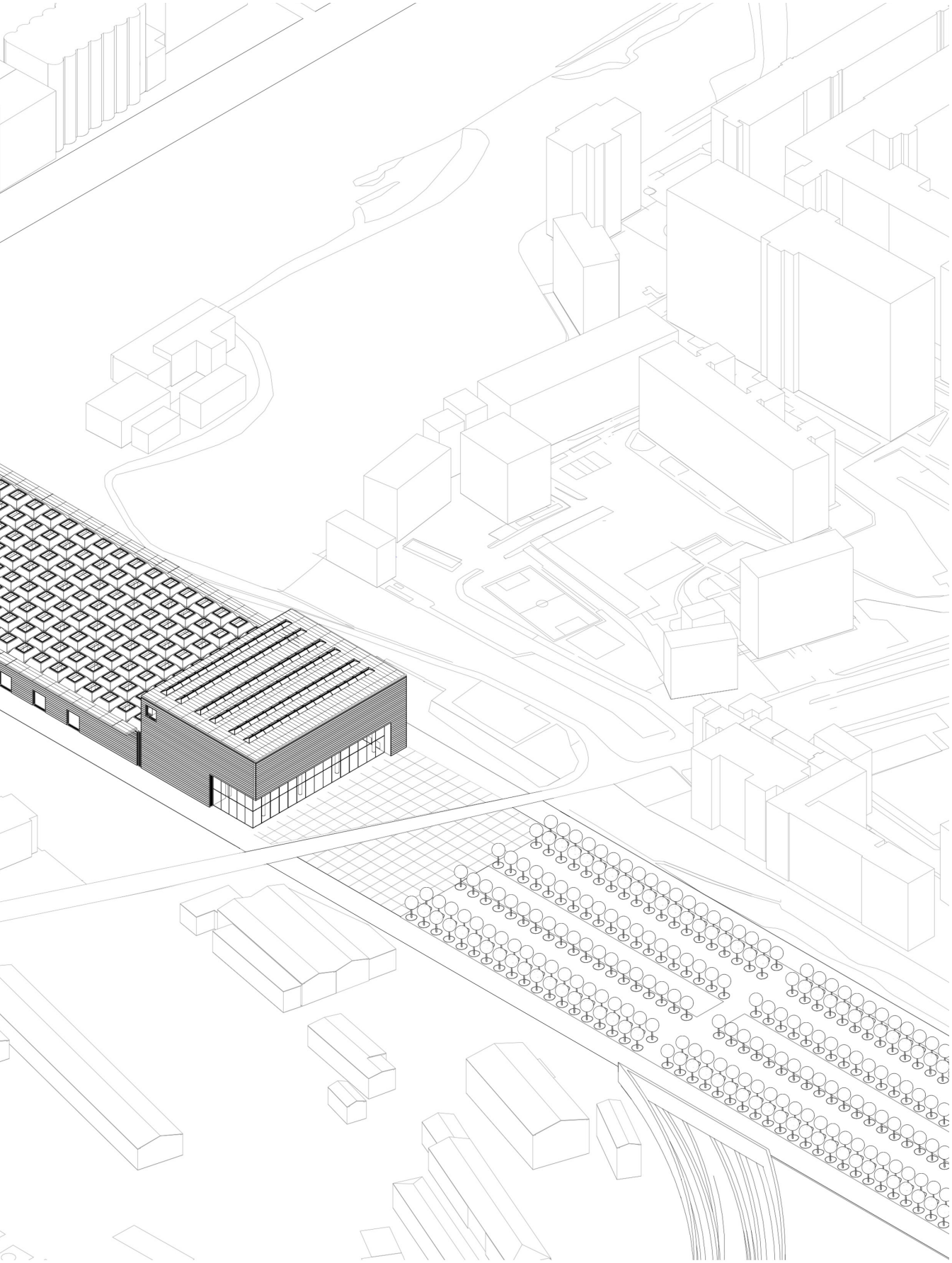


Fig.81 | Haydarpasa & Station Complex,Isometric Perspective
(Servi, 2022)

Rather than one or two communication modes, the Haydarpasa Railway Station project adopts several communication modes such as physical interaction, visual interaction, and semantical connotations. For example, the spectacle view from balconies of three openings could be connotated with the "Last Supper" painting by Leonardo Da Vinci or with a futuristic transportation system. Adoption of a postmodern approach creates multiple codes which each person interprets in several ways. The floating roof stands only over circular columns, it has a complex structure but at the same time, it is pure, simple, and delicate. The high-speed train terminal is a result of engineering. Even though engineering is shown with delicate details, it is non-place, and it is for passing by and for watching. While the terminal building has a more masculine character, the floating roof and historical building carry a feminine character.

When passengers arrive and leave the terminal building, they are wrapped up in a floating roof. Even if their body is different places, this feminine volume is engraved in their subconscious, first thing and the last thing passengers see in the city is the ceramic cladding head of the floating roof. Shiny colors of green-yellowish ceramics grab the attention of travelers. Ceramics have similar colors to colored stained glass windows in Haydarpasa.

5.3.3. Cultural Venue for Joy

"The museum has become a public space in a broader sense"[84]

According to the statement of Judy Wajcman, museums have evolved into crucial public spaces that, in addition to hosting exhibitions, promote conversations and interactive activities for a wide variety of people. These cultural venues encourage socialization in communities, which is essential for the well-being of people. Transforming the historical former station into a cultural center that includes diverse functions that address a wide range of citizens, thus, is a reasonable action to provide pleasure. Primary functions such as the popular sculpture hall, and libraries are open to the public, so people could enjoy facilities without spending effort and money. Democratization of cultural venues as an open public space enables the inclusion of each kind of person ranging from youngest to oldest. Art could make people happy. The most important thing is that art should convey its message in an explicit way audiences could understand without requiring sophisticated art knowledge. Therefore, the cultural center uses a variety of methods ranging from multimedia rooms to guided tours to make art easy understandable

The exhibition route starts on the mezzanine floor on the longest arm. Circulation shafts located on both short and long arms enable visitors' vertical fluid movement. The circulation shaft on the long arm connects exhibition galleries, while the small shaft located on the short arm is used for the evacuation of visitors completing their journey. They follow one direct route, which avoids congestion inside the building. Visitors will follow a specific route until they reach the second floor where the floating roof functions as an exhibition gallery. The floating roof hosts a contemporary exhibition gallery and has vast open space each visitor is free to choose their route. Freedom to visitors is provided in only the floating roof, which coincides with the main idea behind the creation of these volumes: freeing up the mind. Different kinds of representation techniques such as multimedia and paintings will be used to avoid a monotone museum visit experience. The culture center has three performance halls which will accommodate various stage performances such as

84 Judy Wajcman, ""The Museum Has Become a Public Space", interview by Shared Spaces. February 22, 2016, audio, 00:44, https://www.publicspace.org/multimedia/-/post/the-museum-has-become-a-public-space

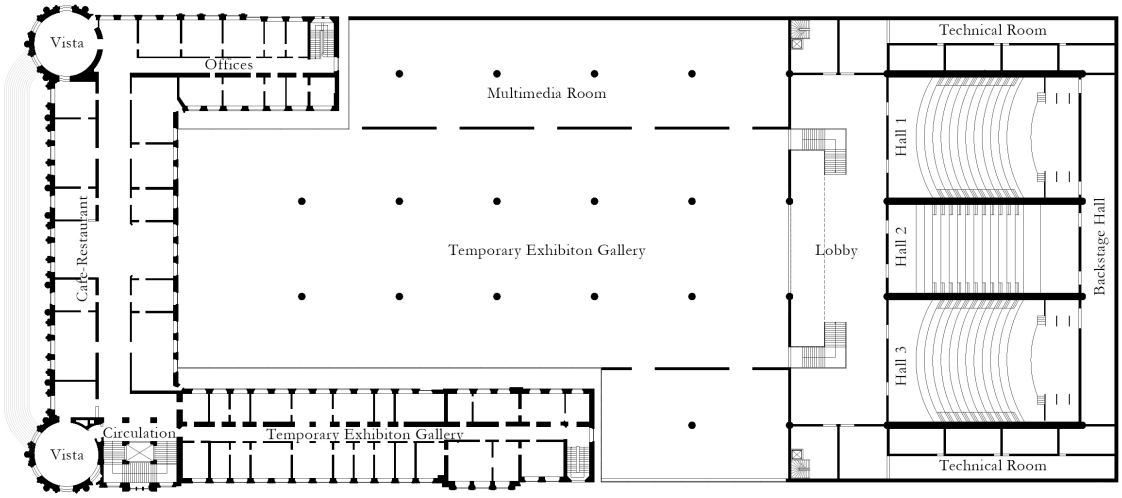
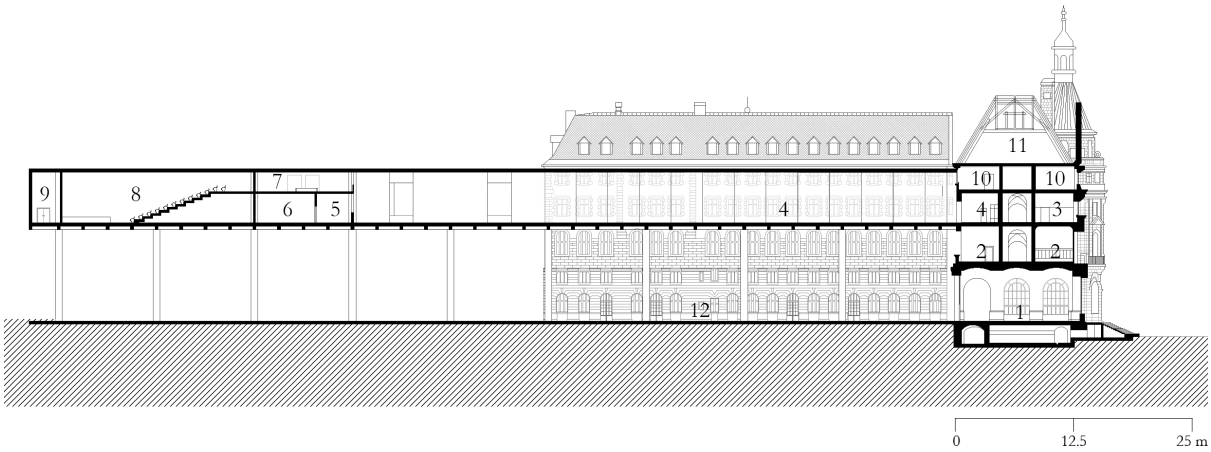


Fig.82 | Floating Roof Level, Floor Plan
(Servi, 2022)



1. Entrance-Admission 2. Permanent Exhibition 3. Cafe-Restaurant 4. Temporary Exhibtion Gallery

5. Ticket Office 6. Storage 7. Lobby 8. Performance Hall

9. Backstage 10. Paintings Room 11. Attic Vista 12. Sculpture Hall

Fig.83 | Floating Roof & Haydarpasa, Longitudinal Section
(Servi, 2022)

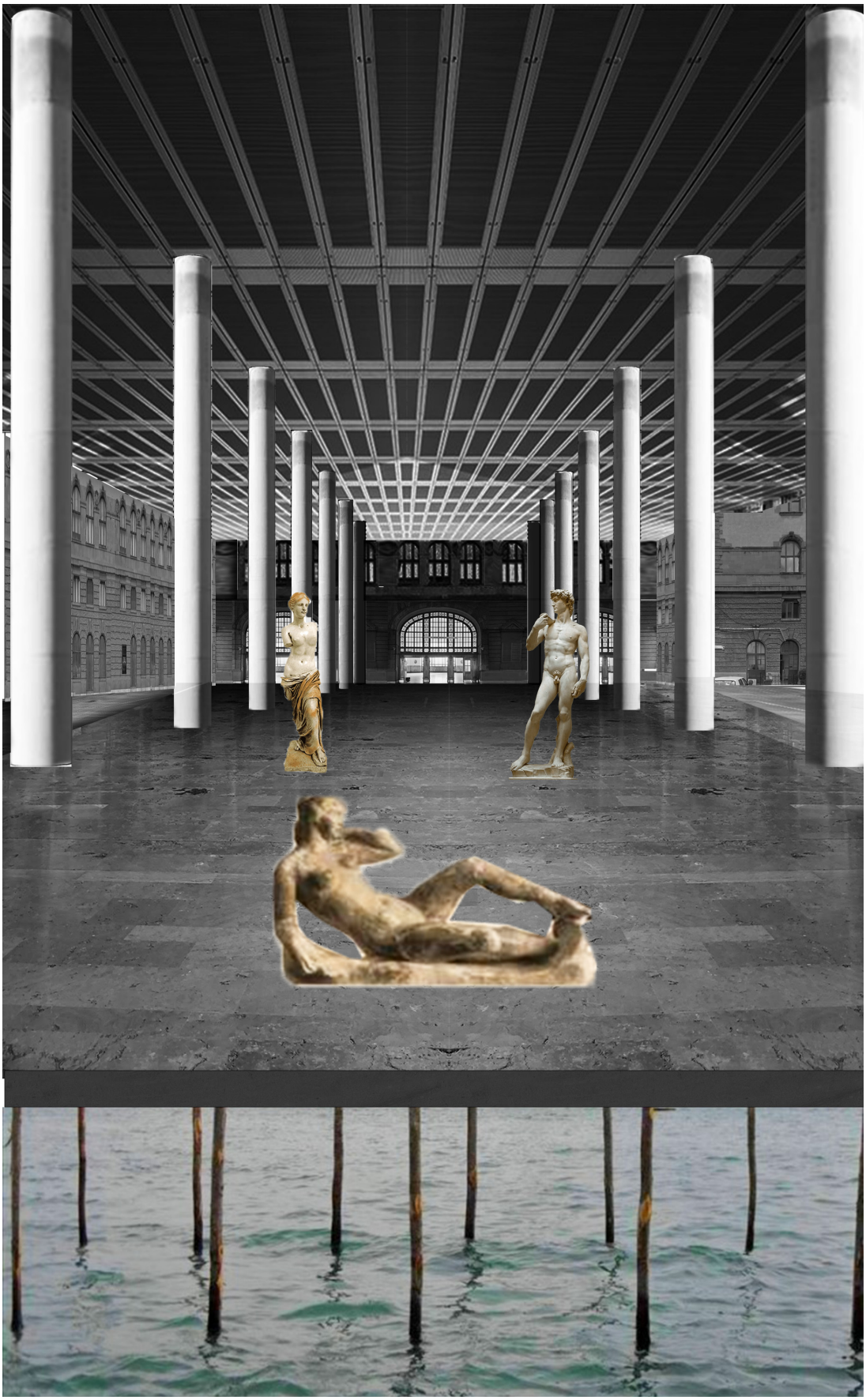


Fig.84 | Sculpture Hall, Collage
(Servi, 2022)

theatre, concerts, and dance. Each floor in the former station is dedicated to a different function, in this way, museum-goers will have the opportunity to experience different exhibition types along the route.

Visitors only have access to the floating roof from the central part of the former station. This area is also used as a café and restaurant. When museum-goers completed their journey, they could enjoy the beautiful view of the Marmara Sea and Istanbul while relaxing. Two gigantic towers have originally been used as a management office, now used as a vista room where visitors will be able to enjoy the spectacle of Istanbul. The floating roof is detached from the historical building on both sides, thus, natural light illuminates the historical façade. Clear glass curtain walls enable museum-goers to see the historical façade during their journey on the floating roof.

The light-shadow effect is realized beneath the floating roof. Natural light penetrates inside from reciprocal edges of the roof. Since the former station, as a matter of course floating roof, has a non-symmetrical form bright atmosphere gradually diminishes progressively. Aldo Rossi correlates happiness with "void"[85]. The void is obscure, it is dark and absent, but somehow, the void arouses curiosity in the mind of people and has undefinable attractiveness. The project proposes to create a void effect under the floating roof through darkness and sharp shadows. The existence of natural light gradually disappears towards the three entrance doors of the former station. Three doors are plunged into darkness. They become a void because the only thing people see is the darkness. Only some details that could be recognizable increase curiosity and attract people. The effect of the void is strengthened and concretized through the alignment of columns. Columns frame these voids and emphasize them. While the sculpture hall is a dimly lit atmosphere, the heavy stone of the historical building is lightened through natural sunlight. Existing granite stone ground is preserved to maintain the historical identity of the station building.

Haydarpasa Railway Station has been constructed over wooden piles. In physical reality, the station stands over water, it floats. However, citizens are not aware of that station floats. Therefore, the floating roof becomes the physical representation of a floating land piece while wooden piles turn into structural columns. The project speaks to people and tries to convey unseen realities in a physical form.

5.4. Public Exodus Center

Haydarpasa Railway Station's renovation and development project aims to reverse citizens' negative perceptions of industrial lands and make the industrial land the most prominent social and cultural exodus center in Istanbul. The station and its surroundings have a very strong "node" character. Haydarpasa Station works with a port in front of the former station building, which means that passengers could easily transfer between two public transportation modes. The development project of Haydarpasa will become complementary to the node character of the coast that is reserved mostly for public transportation terminals. Also, the isolated industrial land of the past will act as a bridge for transfer between various transportation modes. To illustrate, passengers could transfer from the commuter train station to ferries located on the coast by running through the green esplanade, which is comfortable walking among trees with a silent and peaceful atmosphere without confronting a chaotic city. Therefore, the project enables Haydarpasa again to be part of the "node" system and to become a convergence and central transfer point among

85 Aldo Rossi, *A Scientific Autobiography*, trans. Lawrence Venuti (Cmabridge: MIT Press, 1984),24

transportation systems. Citizens living in a remote location from Haydardapasa could easily access the area with the developed node character of Haydarpasa Railway Station.

The new public exodus center eliminates all negative impacts of dense traffic, high levels of noise, and pollution in the neighborhood. The project reveals an opposite condition in which a silent atmosphere exists along a 1 km strip. Hence, the project creates an opportunity for people to escape from negative situations and daily stresses of the city through a new public center that is in the heart of the urban structure. Citizens could relax on the green esplanade by lying on the grass and by walking along the promenade. Moreover, the cultural center invites art lovers and museum-goers to fill up their minds with art and music.

The postmodern approach to the design of station terminals and the floating roof is a response to the dull and demure designs of railroad stations. These principles make railway stations a non-place, a point everyone quickly desires to evacuate and escape. Since railway stations are the places where passengers almost every day have been, the character of stations transmits to travelers. People absorb the atmosphere and soul of the building. Leaving these places unmaintained could impact the well-being of passengers, as a matter of course their whole day. Therefore, Haydarpasa Railway Station speaks to people and expresses unseen or concealed information about the former station. Building itself becomes an enjoyable entity.

A sanded aluminum curtain wall prevents glitter reflections such as metal. The aluminum cladding gives the surface a blurred appearance in changing light and introduces a smooth orange hue to the overall composition during sunrise. People feel the morning sun through the façade. Although the curtain wall has a smooth and opaque appearance, thin and delicate metal strips add dynamism and movement to the façade, and these strips accentuate the industrial identity of the building by connotating corrugated metal facades of warehouses and industrial depots. However, these strips do not disturb or strain the eyes. The smooth appearance of the aluminum façade is compatible with the granite stone pavement of the boulevard. Therefore, the project aims to provide happiness through the metal material and its reflections. The purpose of the action is to break the prejudices of people through the most prominent material of industrial architecture, metal. Metal, unlike many beliefs related to alien station lands, becomes a tangible entity.

Subtle connotations with the past reveal undefinable thoughts. First and foremost, connotations are familiar, they are not alien. Three openings on the façade serve as a spectacle balcony that connotates the past but in a subtle way. The comings and goings of high-speed trains are visible although they are five meters under ground level. The dynamism of constant train movements turns audiences' attention to the roof which consists of trapezoid skylights. Spectators feel calmness, tranquility, and silence, through three openings on the opposite wall, among these dynamic atmospheres of the interior. Visible rows of cypress trees, through three openings, create a surreal and contradictory appearance among the man-made and mechanical reality of industrial architecture. The Central column prevents the view of the middle opening on the opposite side, instead, people focus on the other two visible openings on the sides. This semi-hidden view experience triggers the curiosity of spectators and attracts their attention to this location. Surreal spectacles and contradictory views detach people's minds from reality and their only concentration is to experience and enjoy this exodus center without concerning anything related to their daily life. They are free from all thoughts, and design always opens new doors for people to explore new things. They get the satisfaction and pleasure of exploring and learning.

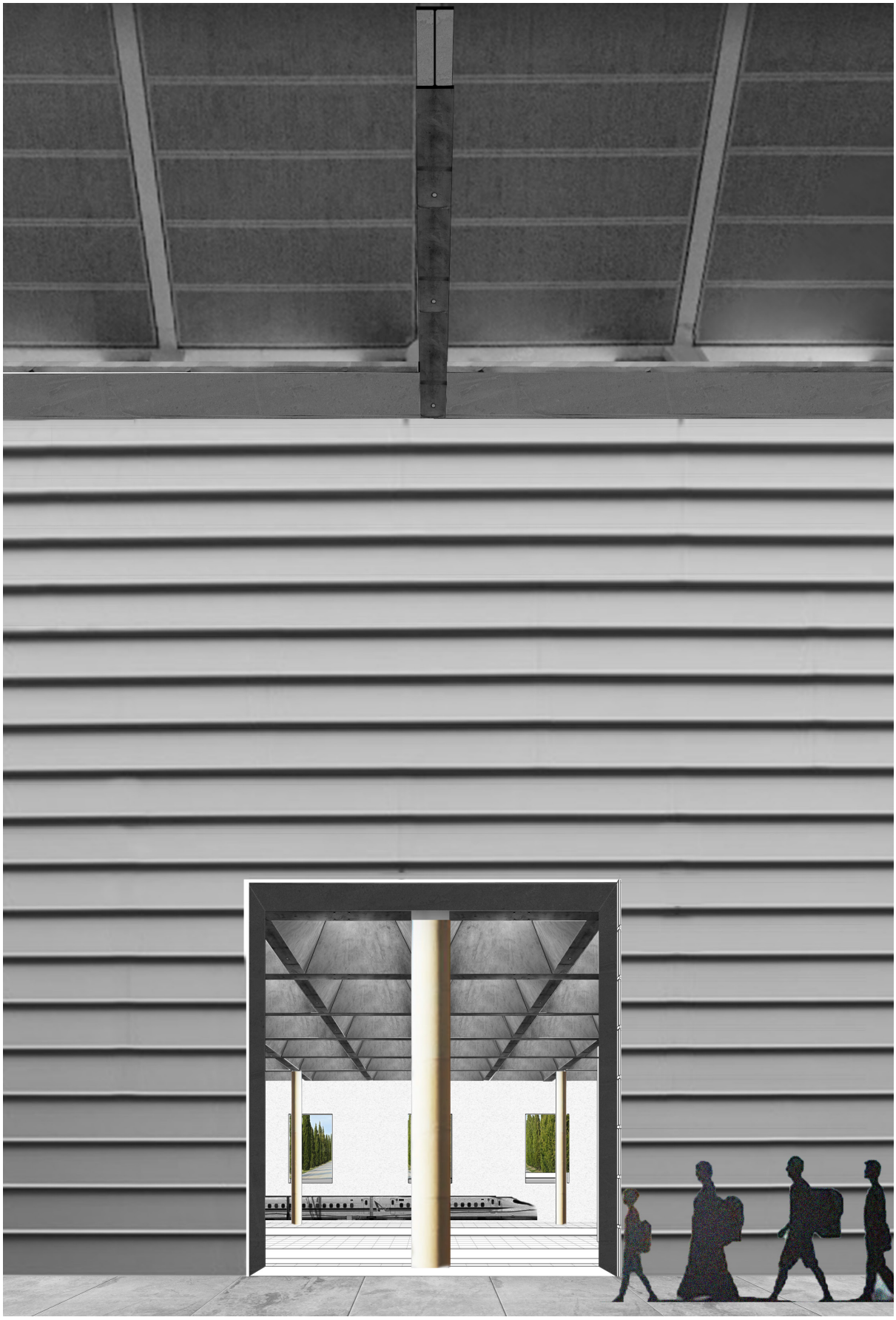


Fig.85 | Spectacle View to Station from Opening
(Servi, 2022)

Due to the node character of the place, they directly access the area through high-speed train, commuter train, metro, or ferry. Effortless accessibility also exists inside the station building. Passengers follow traffic flow and they easily find themselves in front of the floating roof. All functions related to the public are placed on the ground floor to facilitate the accessibility of a wide range of user profiles. Intense use is promoted in the area, but without creating congestion. The arrival plaza will be the densest area due to its central location. Sculpture hall preserves its serene atmosphere by slowing down the transversal pedestrian flow. All people migrate toward the 19th-century station building from each neighborhood. Through interaction with three neighborhoods with distinctive identities, the strip becomes a convergence place for diverse user profiles. Also, the connection of the railway station area with the European side of Istanbul through ferries facilitates the accessibility of people from the historical peninsula. Functions in the cultural center are democratized and diversified. From libraries to performance halls, each person could find an activity making them happy. Even if they do not enjoy art, they could relax on the coast or on the green promenade.

Detachment of two lobes is an action for the separation of the "place" character and the "non-place" character of the station complex. While the new terminal becomes a non-place where travelers pass by, the historical building becomes the place where the same travelers target to access and stop. Natural sunlight illuminates the massive 19th-century stone façade, through cracks between the floating roof and the historical building, which enable visitors to experience the beautiful and fascinating design of the historical building. Architectural heritage value is brought to the light in this way.

5.4.1. Contemporary Center of Istanbul

Cultural venues are new public centers of contemporary communities and cities. Istanbul hosts a lot of famous historical museums and cultural venues. However, the majority, even almost all, of cultural activities cluster on the European side of the city, and cultural life on the Asian side does not have heartbeats.

The historical peninsula which is a famous and touristic part of the city includes world-known mosques, cisterns, and palaces that now serve as museums. Most of these cultural venues swarm around the coast. On the other hand, modern museum venues situate on the coast of the upper piece of land. One of these modern museum venues is Istanbul Modern Art Museum designed by Renzo Piano. Whereas the historical peninsula is the old center of Istanbul, the upper part is the modern center of Istanbul. However, the Asian side could not be part of these centers, there are only a few museums or cultural venues addressed as contemporary public centers, and they are far away from the center of urban structure.

Therefore, the readaptation of the historical building as a cultural center is the first step to transforming the less-known area into the contemporary center of Istanbul. As shown on the map, Bosporus Strait is encircled by cultural venues located mostly on the coast. Revealing a new culture center in Haydarpasa becomes a complementary piece of the cultural chain.

Haydarpasa coast is directly linked to both pieces of land through ferry voyages. When foreign tourists arrive in Haydarpasa by high-speed train, they could follow a cultural route starting from the culture center in Haydarpasa. They easily jump among venues with direct public transportation services. They could visit the modern museum in the upper part by ferry voyage, later they

easily access the historical peninsula to see Hagia Sophia and Topkapı Palace, and finally, they could return to Haydarpasa by ferry. Integration of transportation systems enables visitors to see landmarks and famous places in Istanbul even within a day. Therefore, the project creates a new centrality around Bosporus Strait. Cultural activities are promoted in this way, which would increase visitors' satisfaction level and pleasures related to the city. They have already planned a tour for their first days. The commuter train station behind the green promenade is also an interchange point for metro travelers. Consequently, Haydarpasa becomes not only a new center of cultural life but also a station area that turns into the center of the public transportation system.

Facilities around the station area, in the future, could be transformed into museums, probably hospital museums since this land is dedicated to medical land involving hospitals and universities. The cultural identity of the area, in this way, could be strengthened and the sound of heartbeats of cultural life would start to be heard in the Asian side of Istanbul.

In the past, Sultans, during Ottoman Empire, were constructing palaces to show their power with buildings and architecture in Istanbul. Most palaces are the outputs of this ambition. These heritages carry powerful architectural qualities that have the potential to fascinate people. The majority of these tremendous structures have been constructed near the sea, on the edge of land. Massive buildings were meeting with the sea, reflection was doubling their immense appearance.

However, the world has changed and most historical palaces have been dedicated to public use and have been democratized. The coasts of Istanbul belong for the public, not private use. Integration of cultural center function into former station building is an action proving that cultural venues, which are the future public spaces, dominate the coasts. Palaces become culture centers, kings become visitors of these centers.

The project would revive the neighborhood, but also Istanbul, socially and economically. Increasing social and economic conditions would impact the well-being of people directly. The cultural venue will be the center of social life and the renovation of industrial warehouses as commercial cottages will increase economic mobility. The green esplanade provides a silent atmosphere in this new central area and becomes an exodus place for people who require to escape from the crowd and chaos of the city. Haydarpasa project plans to create the "Bilbao Effect" in the city and to improve the city. By creating a new income source, it could wake up Istanbul from the current economical crisis in Turkey.

Adaptive reuse of abandoned railway stations with new purpose and function will be exemplary action for other abandoned railway stations. Their importance and duty in the urban structure are proved in this way. Heritage value is respected and it is enhanced.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1. Haydarpasa Culture Center
2. Hospital Museum (Possible)
3. Educational Center (Possible)
4. Hospital Museum (Possible)
5. Blue Mosque
6. Hagia Sophia
7. Istanbul Museum of the History of Science and Technology in Islam
8. Topkapı Palace
9. Istanbul Modern Art Museum
10. Istanbul Museum of Painting and Sculpture

Future

Fig.86 | Haydarpasa as New Contemporary Center *(Servi, 2022)*

6 Conclusion

6.1. Future of Railway Transportation

Demand for railway transportation modes has been changing since their inauguration. In the modern era, car and airline dominancy replaced railways since trains were slow and uncomfortable for passengers. However, in the 21st century, this situation was reversed. The inauguration of high-speed trains offering convenient and fast transportation opportunities attracts more and more passengers day by day. Especially for short distances, railway transportation is a more convenient transportation mode than cars and airlines. According to data, railway transportation is commonly preferred for journey times below 2.5 hours, while the popularity of this transportation mode goes down when the duration of the journey exceeds 4.5 hours[86]. After 5 hours, the airplane becomes a more convenient and fast transportation mode in terms of duration. However, travel time also includes transferring from home to the airport and waiting time for the check-in process, and again transferring from the airport to the targeted location. Even the shortest travel by airplane takes 5-6 hours from starting point to end point. Especially enhancing the speed of trains and the construction of compatible railway networks would decrease the duration of travel by train. As a matter of course, railway transportation would have the possibility to replace airline transportation, especially for short distances. In terms of the frequent schedule of trains, rail transport offers a variety of departure time options for passengers. On the other hand, airline travelers have fewer options for the time in a day. If people miss the trains, they could catch up next trains by waiting fewer hours. Furthermore, since station buildings are situated in the center of urban structure, they could spend their time around the station instead of getting stuck in the railway station building.

Many governments took action to improve railway transportation quality in order to bring them to a level that could compete with airline transportation. For example, France applies policies that help and support the rail industry by banning domestic flights on routes that could be completed in less than 2.5 hours by high-speed trains[87]. In this way, the use of railway transportation is

86 Ricard Anguera, Xavier Esparrich, "Air vs. Rail: Can Rivals Become Partners?" *ALG Newsletter*, November 19, 2020, https://algnewsletter.com/land-transportation/air-vs-rail-can-rivals-become-partners/

87 Kim Willsher, "France to Ban Some Domestic Flights where Train Available ", *The Guardian,* April 12, 2021, https://www.theguardian.com/business/2021/apr/12/france-ban-some-domestic-flights-train-available-macron-climate-convention-mps

encouraged and promoted for short distances and high-speed trains compete with airlines. The main reasons behind this policy are to limit the use of airline transportation and to reduce carbon emission rates arising from airline transportation. International Transport Forum explained that in Europe, the carbon dioxide emissions of high-speed trains per passenger are lower than those of planes[88]. Consequently, carbon emissions will be cut in the framework of the Paris Agreement 2050 purpose of zero carbon emission. On the other hand, Britain intends to speed up the HS trains in the near future and revolutionize inner-city transportation by bringing HS2 trains which are faster than HS trains. Speeding up high-speed trains would decrease the duration of the journey and will be used by more passengers as a travel mode.

Nowadays, most trains are powered by electricity. It is inevitable fact that energy demand and use will increase in the future due to the growing population and transportation traffic. Therefore, trains are planned to be operated by renewable energy sources to make travel more sustainable. It is predicted that by 2050, hydrogen or hydrail will be the primary mechanism of powering high-speed trains[89]. The efforts to make high-speed trains more sustainable and ecological transportation modes display the importance of railway transportation for the future. Railway transportation is the most strong candidate to be the faster, greener, and more sustainable transportation mode of the future.

Another essential advantage of railway transportation is related to urban accessibility. Since airports are located on the outskirts of the city center, it is another waste of time and money from the airport to the city center. Rail transportation offers door-to-door travel opportunities, so people do not have to think and worry about transferring and an extra charge to access the city center. Facile accessibility is provided. Another advantage is that railway stations most commonly are integrated with different transportation modes that lead passengers toward other parts of the city. Hence, when passengers complete their main journey, they could access the targeted point by transferring to other public transportation without spending effort.

Every day, the number of people who are conscious of climate change and global warming has been increasing. Their attitude toward transportation mode is vital to increase the role of the railway industry in transportation and eliminate planes for short-distance journeys. Since more people are conscious of the environmental impact of planes, some of them choose railway transportation since high-speed trains emit less carbon compared to planes. That citizens voluntarily select the railway transportation mode is crucial for the appropriateness of railway as a prior transportation mode in the future. Therefore, the environmental impact of airports and planes would be diminished. A satisfactory and comfortable travel atmosphere is an effective factor that influences the choice of passengers. While railway transportation, depending on the train, could offer a comfortable travel experience promoted by common areas such as restaurants and cafes. These functions encourage social activities inside the train. On the other hand, passengers using planes commonly do not have common areas for socializing. Therefore, railway transportation remains ahead of airline transportation. Passengers enjoy the travel experience. The quality and speed of the travel experience impact the well-being of passengers during the journey. Keeping positive thoughts and feelings is essential during the journey in order to provide a positive first impression on arrival

88 Eva Grey, "Faster than Flying: The High-Speed Rail Routes Taking on the Air Industry" *Railway Technology*, February 19, 2018, https://www.railway-technology.com/analysis/faster-flying-high-speed-rail-routes-taking-air-industry/

89 Ben Jones, "Faster, cleaner, greener: What lies ahead for the world's railways", *CNN Travel,* May 30, 2022, https://edition.cnn.com/travel/article/future-rail-travel-cmd/index.html

travelers. Travelers do not have to be concerned about luggage problems and they could take their commodities with them. Sleeper train options between long distances have the opportunity to welcome passengers for an overnight travel experience.

Railway transportation mode has exclusive features distinguishing them from planes. Railway transportation sometimes could be an experience rather than a mere transfer process from one point to another. Interaction between travelers and surroundings is preserved during the journey and they could enjoy the changing spectacle views from the window of the couchette or seating. Traveling by train could be a satisfactory and enjoyable experience, even if it takes longer time than airline transportation. There are already trains that offer overnight experiences during the journey. For example, the Eastern Express is an overnight train driving between Ankara, the capital of Turkey, and Kars. Rather than sole railway transportation, this transit line offers passengers a unique train experience. Although travel takes almost 25 hours, the demand for journeys has been exploding recently. The journey becomes a part of winter vacation, a starting point for positive feelings and emotions. Therefore, people choose to travel by train for longer hours, but in an enjoyable atmosphere, than traveling by plane within 3 hours in an inconvenient atmosphere.

The railway industry, thus, has a very strong potential to be the main actor in the international transportation system. Through specific decisions on each scale ranging from the inner city to international, traveling by train could provide comfortable and satisfactory experiences. The passenger capacity of trains is higher than planes. They also could be the cheaper option for the same quality of experience along the journey.

6.2. Future of Station Buildings

Since railway transportation has the powerful possibility to dominate travel modes in short and long distances through different services and offers, the readaptation of railway stations to a new generation transportation system is the more essential issue. Instead of the construction of new "non-places", historical 19th-century station buildings should be adapted to current and future requirements. New contemporary extensions should maintain the identity of the former station and functions should be shared between old and new buildings for the appropriate use of spaces.

Renovation and readaptation of historical terminals are more sustainable and ecological solutions for the future, which coincides with the purpose of pulling down carbon dioxide emissions. 19th-century station buildings are already located in the heart of urban fabric, so the readaptation of former stations also eliminates the necessity to construct new infrastructure and transportation systems for connection with the city. On the other hand, airplanes situate far away from the city center, and it is required to construct new metro or train networks linking the airport and station, which means more vehicle and pedestrian traffic, more energy use, and carbon emission. Consequently, the design and architecture of historical stations are vital.

Most contemporary railway station buildings maintain the deceitful façade in front of the actual railroad, still, the industrial part is concealed behind an embellished screen. Therefore, new structures lose their main identity which is to be station buildings. From the exterior, contemporary railway stations are undistinguishable from any super modern structures such as office blocks or shopping malls. When a signboard disappears from the building, it could easily gain another function, and anybody will not be surprised by the new function. Therefore, station buildings, even if modern structures are required, should preserve the identity. Due to technological developments,

the character of station buildings could be accentuated in a more explicit way. In this way, "new" and "old" could complement each other.

The perception of people of railway stations always became negative. These industrial lands have been perceived as undesired and unattractive parts of the urban structure. Nonetheless, this perception needs to change to make railway transportation, a faster, greener, and more sustainable transportation mode, the main actor of the future transportation system. There is a gigantic gap between the representation of airports and railway stations. While diverse functions are conceived to enable people to spend their time in the airport during the waiting time, on the other hand, departure and arrival passengers in railway stations aim to evacuate the terminal as soon as possible. Hence, terminal buildings should convey a message rather than being mere blind façades with a demure appearance. Only then, industrial lands are appropriated not only by passengers but also by ordinary citizens. These alien structures are perceived as familiar buildings that society would be willing to spend their weekend in the station area. The convenient atmosphere and experience during the journey are maintained in station buildings and enjoyable and positive thoughts are preserved along the travel.

Along the thesis, it is examined the station buildings as hedonistic public spaces in which citizens would migrate toward these industrial hubs. In the following section, three actions which are Atocha, Orsay, and Haydarpasa will be compared in order to demonstrate how different approaches could treat the problematic situations of stations and their surroundings.

6.3. Atocha, Orsay & Haydarpasa

Three case studies follow apart approaches to eliminate negative parts of station areas. Redevelopment of the Atocha Station project extended new terminals linearly behind the historical building as if the new structures are continuity of the 19th-century terminal. The connection between old and new has been provided through corridors and halls flanked by commercial spaces. "Classical perception" is maintained in Atocha. Departure passengers, as it has always been, gained priority over arrival passengers. The tropical garden and the historical station building have been dedicated to departure passengers and the arrival concourse is conceived to evacuate arrival passengers as soon as possible from the station area. There is an invisible hierarchy, for the utilization of the historical building, between arrival and departure passengers. On the other hand, the Orsay Railway Station transformation project also preserved the historical building and railroads have been moved laterally under the ground. The rest of the interior space was designed as a museum by preserving the main layout of the station both longitudinally and transversally. The hierarchy between passenger types does not exist in Orsay because they use the same vertical circulation space to access Orsay. The old arrival concourse became the main square of the station. The entrance and exit of the historical building are moved to the transversal façade. In this way, the use of station building has changed from transversal circulation to longitudinal circulation, whereas the longitudinal circulation of Atocha Station has been exaggerated through additions of new structures in the same direction. Haydarpasa Station development project followed an unusual conception that adopts detachment of new terminal building from historical building. Compared to the other two projects, the Haydarpasa Railway Station development project displays the fact that two volumes, which are "hall" and "train platforms", have apart functions and work autonomously from each other. The project emphasizes this reality physically and visually. Compared to Atocha, priority has been given to arriving passengers, not to departure passengers which already left the city. That de-

parture passengers concentrate on enjoying the public space before the train is tough because they follow the hour of the train, they always have urgency, and they already have seen and experienced many things in the city. Therefore, the main target user profile is newcomers.

The interaction of the three projects with the surrounding urban fabric and citizens varies from each other. Since Orsay station is located under the ground, people are not able to recognize any sign, except the underground entrance signboard, proving the existence of the station. Only if museum-goers use railway transportation, they could notice it. Also, the building, which is the old Orsay Station and the new Orsay Museum, has identical architecture to the surrounding buildings and it is not distinguishable. On the contrary, Haydarpasa and Atocha projects do not conceal the station identity from citizens, they emphasize it physically and visually. In Atocha Railway Station, the glazed curtain wall perpetuates a visual link. Also, the creation of balconies on street level enables passengers or citizens to watch the high-speed trains located below street level. One of the most powerful physicals emphases on station identity is the clock tower in Atocha. Watching trains in the Haydarpasa project turns into an enjoyable activity. Through voids on the terminal façade, people clearly could recognize the station's identity by seeing, hearing, and feeling. In both Atocha and Haydarpasa, the material has been used as the principal tool to display station character. Metal and brick have been used together in the Atocha extension project, and old and new materials were blended. This action coincides with the conception of continuity. Blended materials of classical and industrial architecture in the former station have been translated and preserved in new structures. The extension project in Haydarpasa followed the opposite conception to emphasize station identity. The principal material of industrial architecture is metal, and the aluminum curtain wall clearly and strongly displays the identity of railroads and industrial architecture. Two principal material, compared to Atocha, was detached as physical metaphors. The stone symbolizes the "classical volume", whereas metal is the connotation of "industrial volume".

In terms of function, Atocha does not include functional activities as much as Haydarpasa and Orsay. However, the tropical garden becomes a powerful entity to make people happy through greenery and to interact with surrounding cultural complexes. Orsay station building has been transformed completely into a museum whereas new extensions have been attached to the historical building to increase the capacity of the cultural center in Haydarpasa. Therefore, Haydarpasa and Orsay stations could attract more people, for daily or weekend activities, than Atocha station. Station complexes, in this way, could be appropriated for daily use and became an ordinary part of urban structure. Orsay station perpetuates mainly formal architecture with Beaux-Arts façade although there are attempts to break this formality in the Atocha complex through the diverse roof typologies and the use of different materials. Also, the different height of roofs defines the hierarchy of the space beneath them. The formality of Orsay, on the other hand, has been eliminated in the interior design through the adoption of a completely apart architectural language. Haydarpasa project aimed to eliminate the formal appearance of station buildings. Various heights, which are related to functions, of volumes, and delicate details that connotate the station building help to remove formality from the terminal building. Three unexpected openings and balconies are other physical entities that make terminal building enjoyable.

Although redevelopment projects of Atocha and Orsay Railway Stations have been carried out in almost the same periods, the architectural approach differs. While Aulenti adopted postmodern principles that use the existing Egyptian Funeral architecture in a subtle way and reinterpreted it, the impact of vernacular architectural typologies is the dominant factor in the design of Moneo. However, the Atocha project becomes a more contemporary approach than Orsay. Moneo

translated the existing qualities of the former station in a contemporary way by using developed technology and by thinking about the future of railway stations. On the other hand, the design of Orsay followed the trends of postmodern architecture, but actions remained as mere design and did not open new opportunities for the future. Haydarpasa project, therefore, shares similar ideas with the Atocha project. By using the main idea of the former station, new structures translate the main idea through contemporary structures and the placement of departure passengers at the end of the complex creates an opportunity for the extension of the railway station toward the green esplanade. The terminal of departure passengers would stay in its original place, and it will become a central hall serving platforms on both sides.

Three redevelopment projects are on different scales. While Atocha is the largest scale project, which is followed by the Haydarpasa project, Orsay is the smallest one among the other two projects. However, due to their node characters, the impact scope of the three projects is international scale. Due to growing investments in railway transportation, the importance of these stations would increase in the near future. Especially, European countries aim to make railway transportation cleaner and faster transportation mode to diminish carbon emissions. It is inevitable fact that railway traffic will increase in the future, as a matter of course, and the capacity of stations would increase to meet the increasing pedestrian and transportation traffic. Atocha railway station could continue to grow towards the south to meet increasing demand, whereas Orsay station would be possibly a way station connecting central stations since there is no available place for future extension of railroads. On the other hand, Haydarpasa has the possibility to continue to grow behind the new terminal under the green esplanade. Therefore, Haydarpasa and Atocha have the potential to maintain the former station character in the future transportation system, Orsay would, with high possibility, be a significant way station linking the major stations. However, it is clear that three case studies would be the focal point of cultural and social life.

To conclude, railway stations would be the future of a sustainable transportation system, and railway stations would promote this action by being public exodus centers where citizens would willingly migrate to not only travel but also to spend their free time. The negative perception of railway transportation and station areas will be reversed and these station areas create new contemporary public spaces in the heart of the city.

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List of Figures

Part 1

Part 2

Part 3