Hybrid Buildings as Catalysts on Urban transformations

Transportation nodes and interventions in complex urban environments
Complex building in Zuidas

MSc4 Hybrid Buildings Graduation Studio
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The site chosen for this year studio is Zuidas area in Amsterdam. It is a large, developing business district and lies between the rivers Amstel and Schinkel along the ringway A10. Considering it an area with interesting potential not yet fully exploited, I try to understand by designing how architecture, by reacting on the physical as well as the cultural context, can improve the performances of the space.

At this moment, the infrastructure zone that characterizes the area consists a border for Zuidas, splitting the CBD in two parts, breaking the continuity, physical and visual. In its current condition, the infrastructure zone is perceived a negative space, as a crack whose edges adjoin the positive parts of the site. This defines the problem in the urban scale, whereas in the architectural scale in terms of building typology, the introvert building the one that predominates in the area. As a consequence, the existing outdoor public space remains unoccupied, and functions just as transitional zone from the station to the buildings, without offering any spatial quality.

On the other hand, the exiting station is reaching the limits of its capacity, due to the increasing number of people use the public transport. In the future years, the Zuidas station will be expanded, accommodating more tracks and public amenities in order to respond appropriately to the growth in passenger numbers. Based on facts and figures the number of railway passengers per day in 2030 will be 130,000. (That means three times the current passengers per day). Therefore the extension of the station is the starting point for my design.

Briefly describing, I investigate my station project in two aspects and scales, in the urban and in the architectural. In the urban, I extend and re-organize the rail tracks and the circulation of transportations (bus, tram, taxi, car, bike). In the architectural scale, I investigate the typology of the station, as a complex building that accommodates the diverse program to respond dynamically to the mono-functionality in Zuidas.

Although, considering the design of the station as an opportunity for re-designing the city and the station in combination, I design the ‘roof’ of the station as an exceptional part for the station and generally for the area. Historically, the roof was always an element that symbolized the railway station and characterized the publicness of the city. In that way, I try to extend and highlight this part of the station and as a consequence I incorporate program on the top of the station, a diverse cultural program (museum and modern library) that is programmatically related to the Vrije University in the area.

Parts of my complex

• Railway platforms and supporting functions for the station (east and west side)
• The two side facing elements (north and south side of the railway) designed as generic areas to define a relation between the ground level-pedestrian street, plazas- to the station and to the building on the top of the railway
• The cultural building on the top of the railway (the core of my project)
Concept for the design of the cultural building

The role of the station in the modern society

Currently, the travel is not an event anymore, but part of everyday’s life and routine. People-and especially people in the Netherlands- travel by train every day to other cities of the country. The train station is for them a fast passage to cross and pass by. Therefore, for my project the train station symbolizes the temporal and the ephemeral. In contradiction to that, goal for my building is to express the opposite. To become a destination for the users, not a passage but a ‘shelter’, a ‘solid’ space to live and to experience, a sense of intimacy and permanence contrary to the environment surrounds it that is under development.

Volumetric composition and synthesis

In terms of the context, the cultural building’s general shape derives from the interconnection of points of the ground level and the creation of new urban relations. The new diagonal signifies the new geometry for the area.

The extruded parts of the volume that mark its presence to the city always maintain the straight edges aligned to the urban surroundings. The building can be clearly described as a synthesis of open and closed, void and solid spaces, interior and exterior.

The cultural space (level +18.2m) is designed as one floor plan that is divided in two parts connected by a common zone of spaces and circulation.(diagram1) The two functions of the building that are designed based on the same principles, offering though different spatial qualities. These two opposites, (diagram 2,3) the library as an extrovert space and the museum as an introvert and massive, are both interrelated to the outdoor collective space of two courtyards and to the roof of the building that connects them, becoming accessible in order to redefine also the extension of the public on the top of the building in correspondence to the public space on the ground level.

The ground level is of great importance as it connects the building to the city, relating it to the public space, creating street level experience, and offering access to the interior space by many points. It connects the public plazas to the platforms level of the station as well as the cultural building to the street level.

The two side facing parts of my complex that accommodate retail and offices play the role of the interface zones and mediators between the city and the complex. The linear transparent façades here appear as a gigantic, transparent, real time scene, which allows the visual interconnection of the interior and the exterior space, as well as the interchange of information. The transparency enhances the theatrical aspect of the building. In fact it is opened up as perspective on the city.

Facades and Materialization

The facade as the outer skin of the building expresses both the image and the performance of the building. It is the expression of the building’s identity having a strong impact on the relation of the building with the surroundings.

The materials used in the facades are mainly glass and concrete corresponding to the open and closed space of the building. The long horizontality in the geometry of the facades is interrupted by vertical partitions and high openings.

Parameters for the design of the façade were the need in light of the space inside as well as the climatic performance of the building based on the orientation.
Conclusion

In response to the main problematic questions I posed in the beginning of my design, I would say that a building that expresses the ‘destination’ accommodating diverse program comes to transform the crack in the area from a negative to a positive space, to give the possibility to the space to be turned from a-social into social. A public building is likely to characterize and define the perception of people for the city. In that way, as the building- space, in the general term- is perceived as positive, not as a space to be ‘consumed’, but to be ‘desired’, then we could say that the ‘building’ and architecture have fulfilled part of their goal.