A GATEWAY TO THE CITY

by Peter Arthur Baron

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designing an arrival/departure experience by Peter Arthur Baron

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fullfilment of the requirements for the degree of Vance H. Pittman

MASTER OF ARCHITECTURE
in ARCHITECTURE

William U. Galloway

August 13, 2015, Blacksburg, VA

Patrick A. Doan

Keywords: Lugano, train station, monumental, lookout, tower, canopy.

ABSTRACT

A Gateway to the City

Through this thesis I explore how a train station can serve as the platform for an experience that is more profound than simply coming and going, and instead can provide a moment that allows travelers to appreciate the location that they are traveling to or from.

A train station is almost uniquely positioned to serve as the first or last building any train traveler encounters in a city, serving as the gateway to the modern city. This presents an opportunity where the station itself will have a direct influence on a traveler's initial or final experience of the city.

And so, I propose a station that, through its architecture and relationship to the site, provides the traveler a space where they can stop, look, and take in the view of the city from which they are about to depart or at which they are just now arriving. It allows those new to the city to get an understanding of the basic urban layout and its relationship to its surroundings. It becomes a destination in itself, that allows the local population to regain knowledge of their city and to reinterpret what they already know about their home.

ACKNOWLEDGEMENTS

I give thanks to

Mom and Dad for your continuing love and support throughout this journey. I made it here because of you and I am forever thankful for that.

My brother JP for your architectural tips, tricks, tutorials and guidance that always helps me work through any issue I run into.

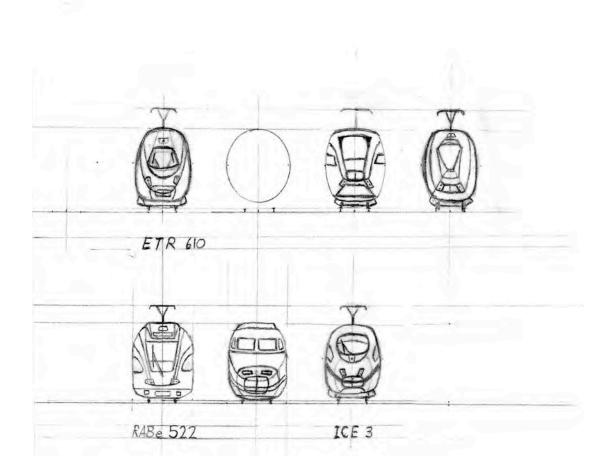
Gloria for all the love you show me everyday that always keeps me positive and looking ahead.

My committee members: Hunter, Bill, and Patrick for your guidance and for sharing with me your immense knowledge in everything architecture. What I learned here during these three years is invaluable and for that I thank you.

My classmates / travel companions / fellow designers for the indispensable company in studio that made every late [latin] night memorable, for the always helpful critiques, and for making studio a home away from home.

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ESTABLISHING THE SITE

The chosen site for this thesis is the existing train station in the city of Lugano, Switzerland, which lies on Lake Lugano, in a valley surrounded by the mountains of the pre-alps. The station is located on the western mountain of Lugano, where it enjoys a unique vantage point directly overlooking the major metropolitan area of Lugano and its surroundings.

A space that allows people to enjoy a view of the city has to necessarily be at an elevated vantage point, a characteristic usually reserved for lookouts, towers, or skyscrapers. But here we find a train station that takes advantage of this essential quality.

From the station, travelers will be able to see the downtown area immediately in front of them, the city as a whole, the large mountains to the east and south east of Lugano, as well as lake Lugano. This allows for an understanding of the valley as a whole.





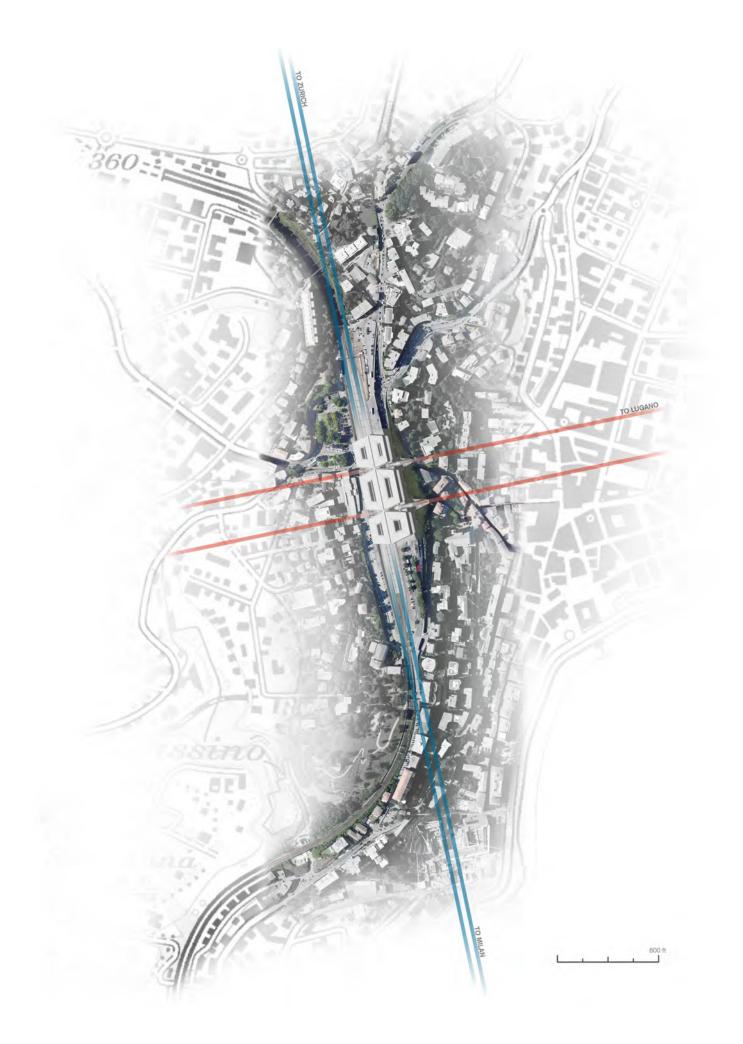


Diagram showing the axial characteristics of the station.

The north-south axis (in blue), is the direction that travelers move in when arriving or departing the station on the train.

The east-west axes (in red), are the primary circulation paths through the station, going towards or away Lugano city center.

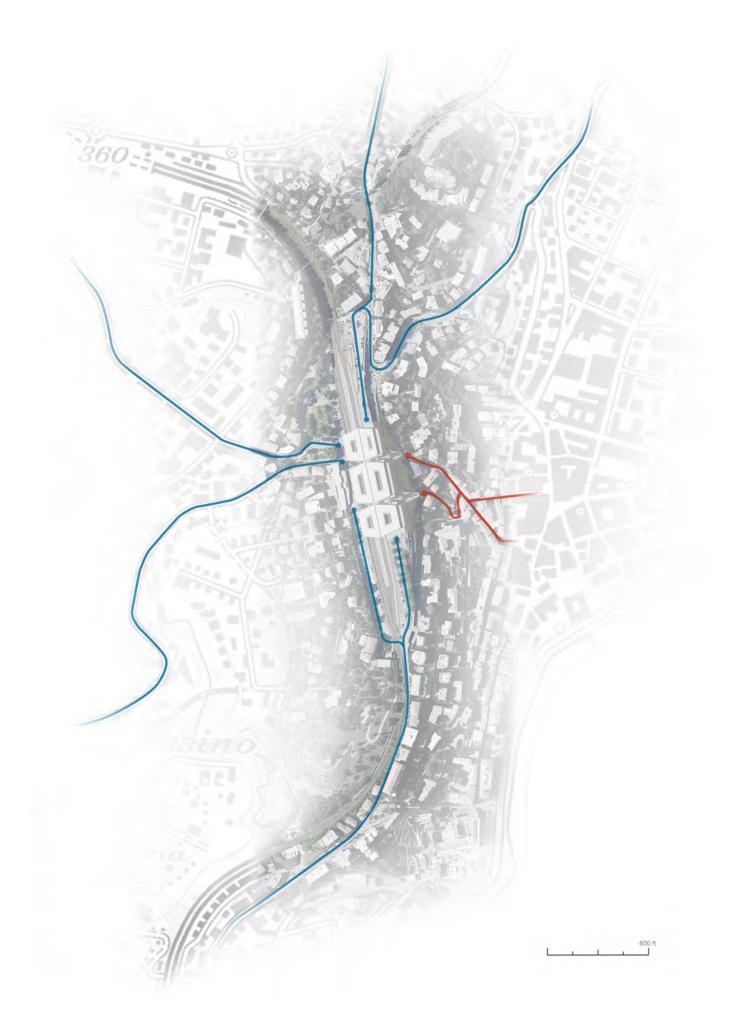
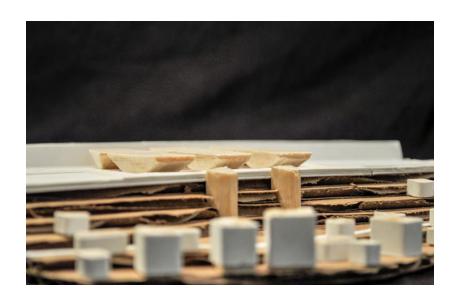


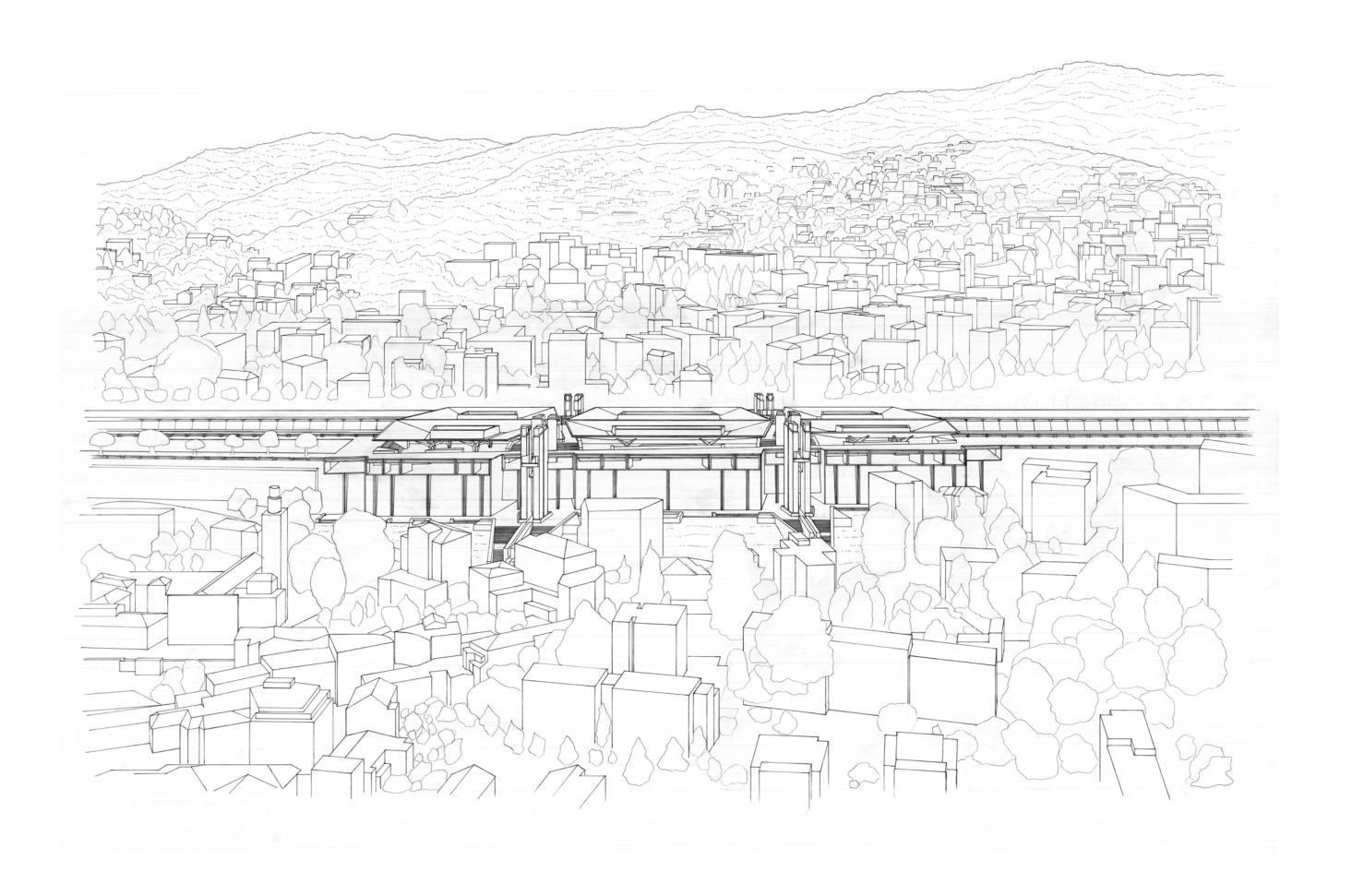
Diagram showing the main access paths to the station.

Roads are shown in blue. Pedestrian paths connecting downtown Lugano to the station are shown in red.











THE STATION

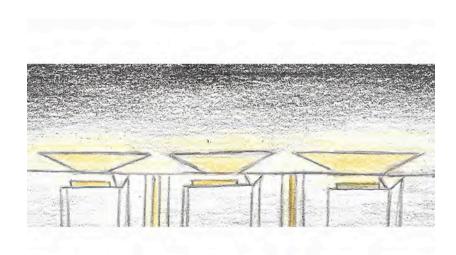
The main rhythm or system of organizing the main elements of the station consists of three large bays, where the canopies are the dominant feature, separated by two circulation axes where the towers are featured. The first (southernmost) bay is the largest and each consecutive bay becomes smaller to accommodate for the angle of the site.

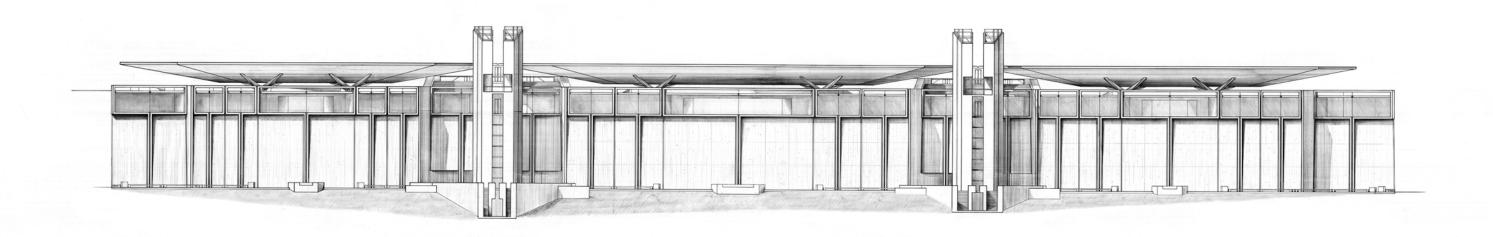
The long axis of the building running parallel to the train tracks, sees a division of the programatic elements into two distinct areas:

The platforms and train tracks: on the western side of the station away from Lugano.

The front of the station: on the eastern side closest to Lugano. This part of the station houses 15 viewing rooms overlooking Lugano, a large space on either end of the station to accommodate a ticket office and a restaurant or other similar venue, and four bathrooms plus storage space.

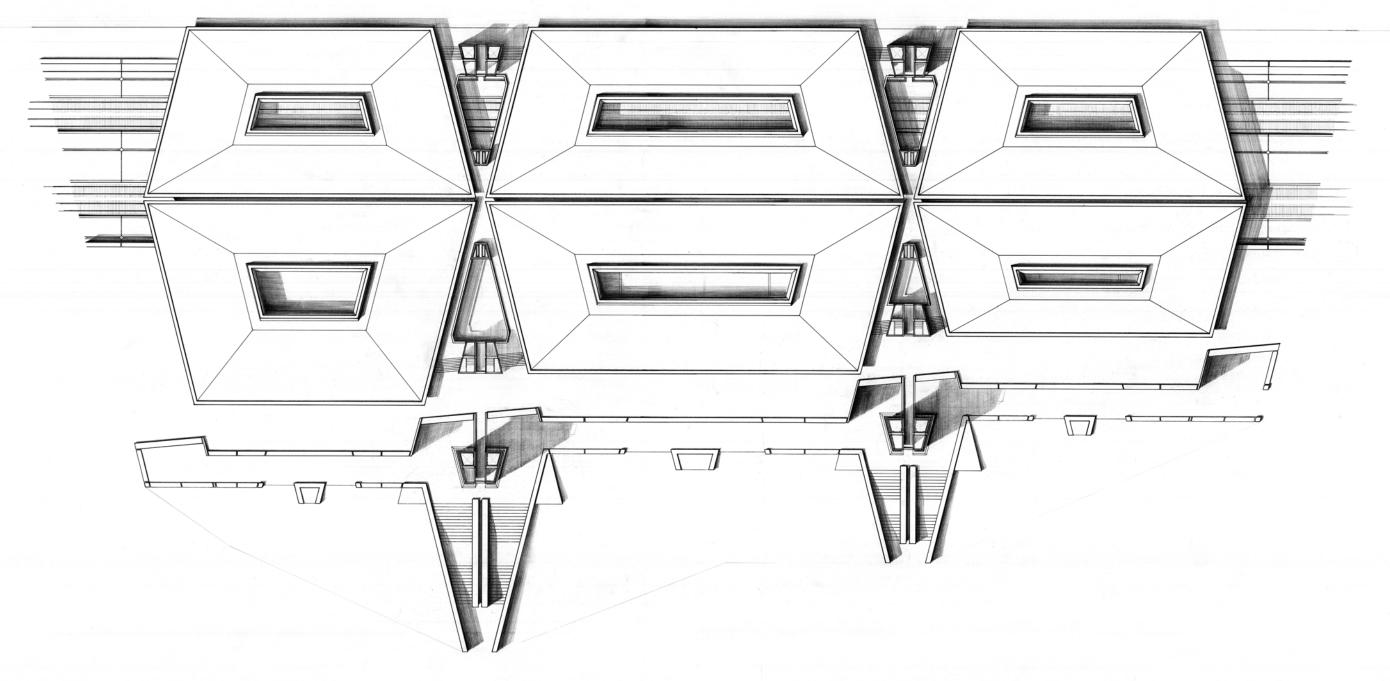
These two areas are connected by the circulation axes: Each circulation axis is composed of a bridge and the main towers which house the elevators and stairs. They are arranged to serve as either the entrance to the station when coming from Lugano, or as the way down to the platforms.



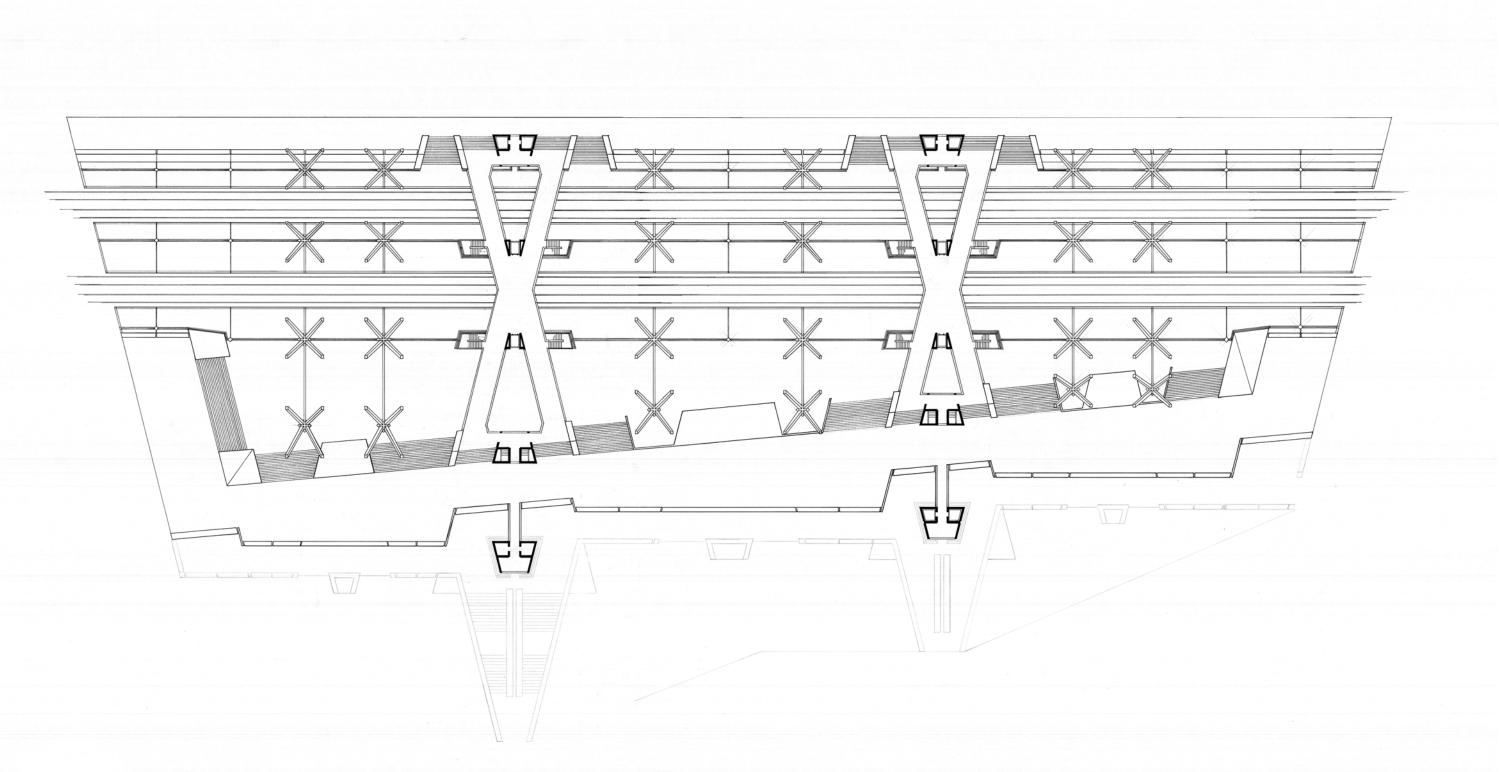




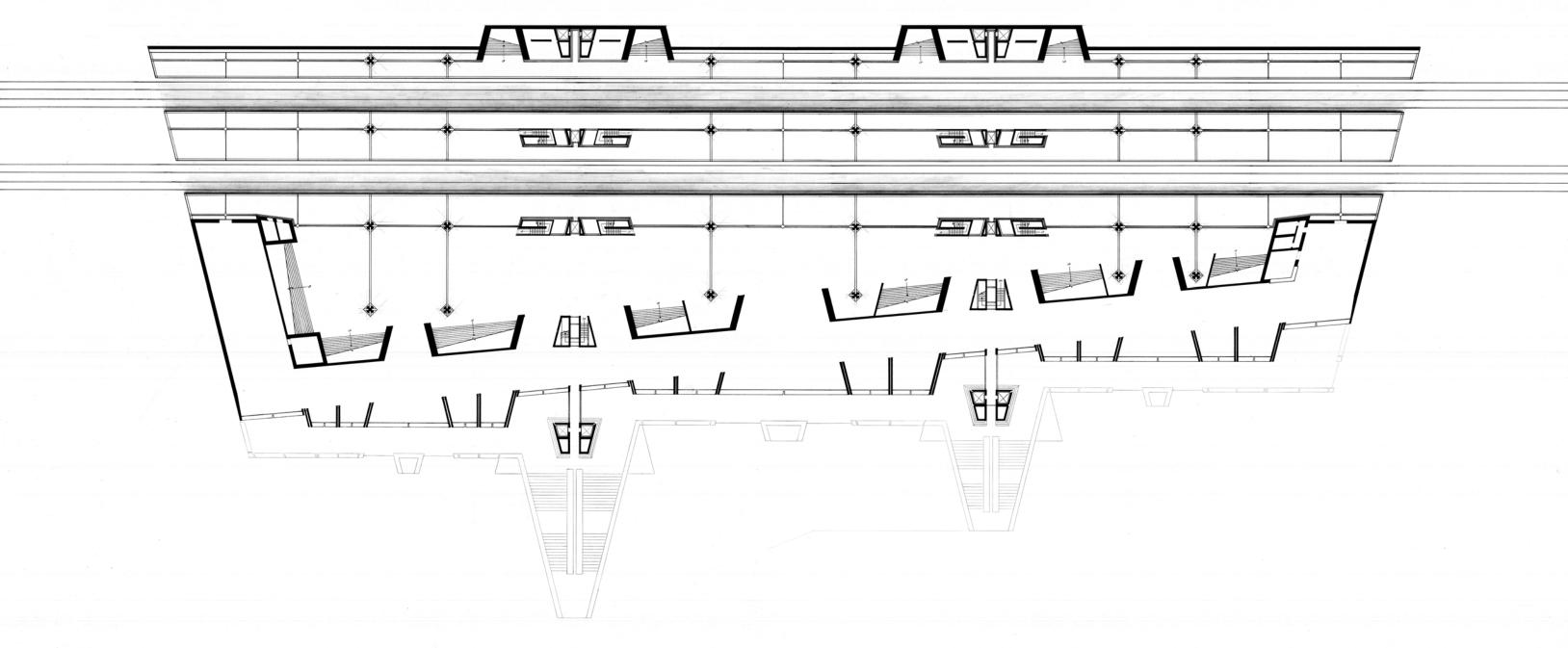
East and West Elevations



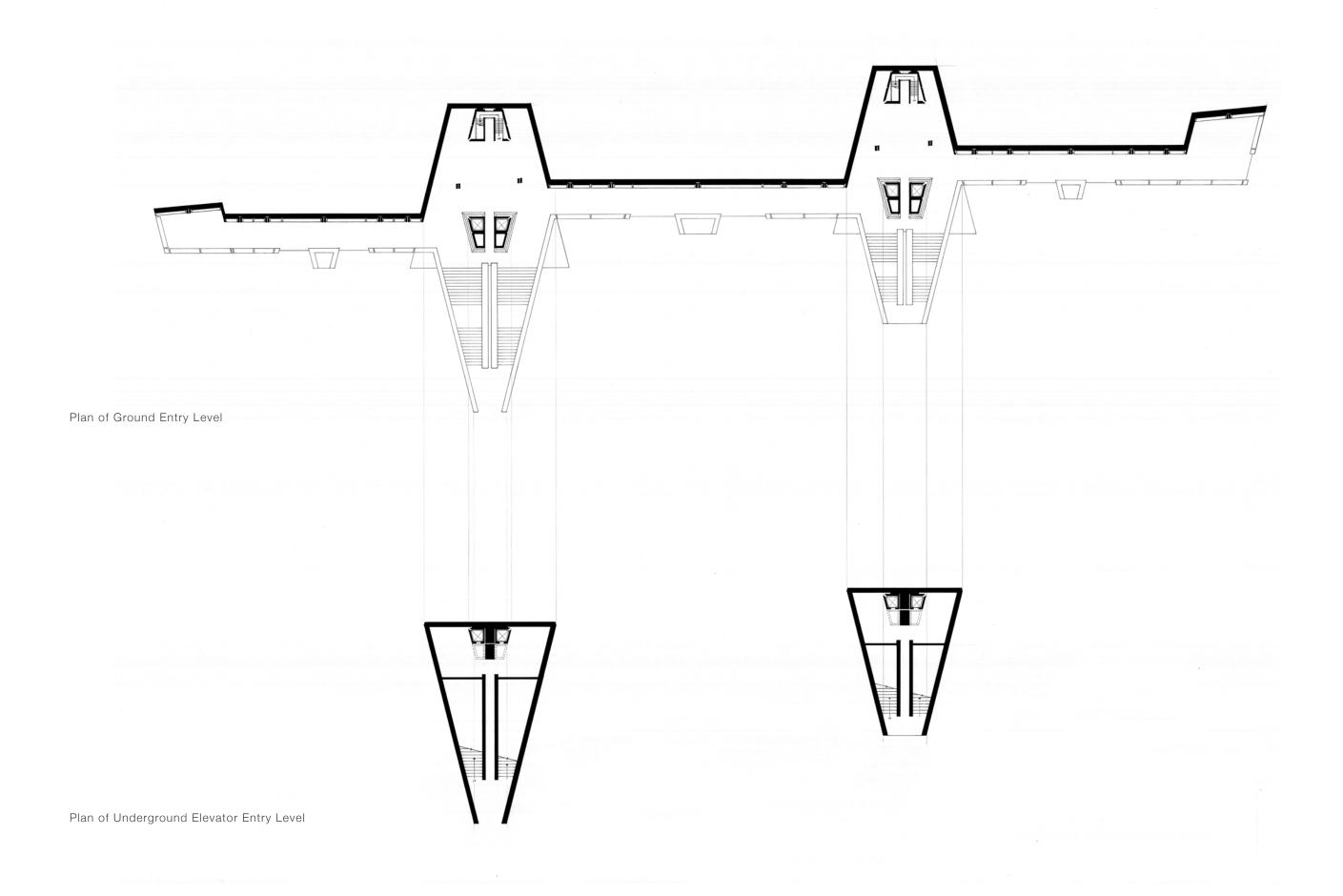
Roof Plan

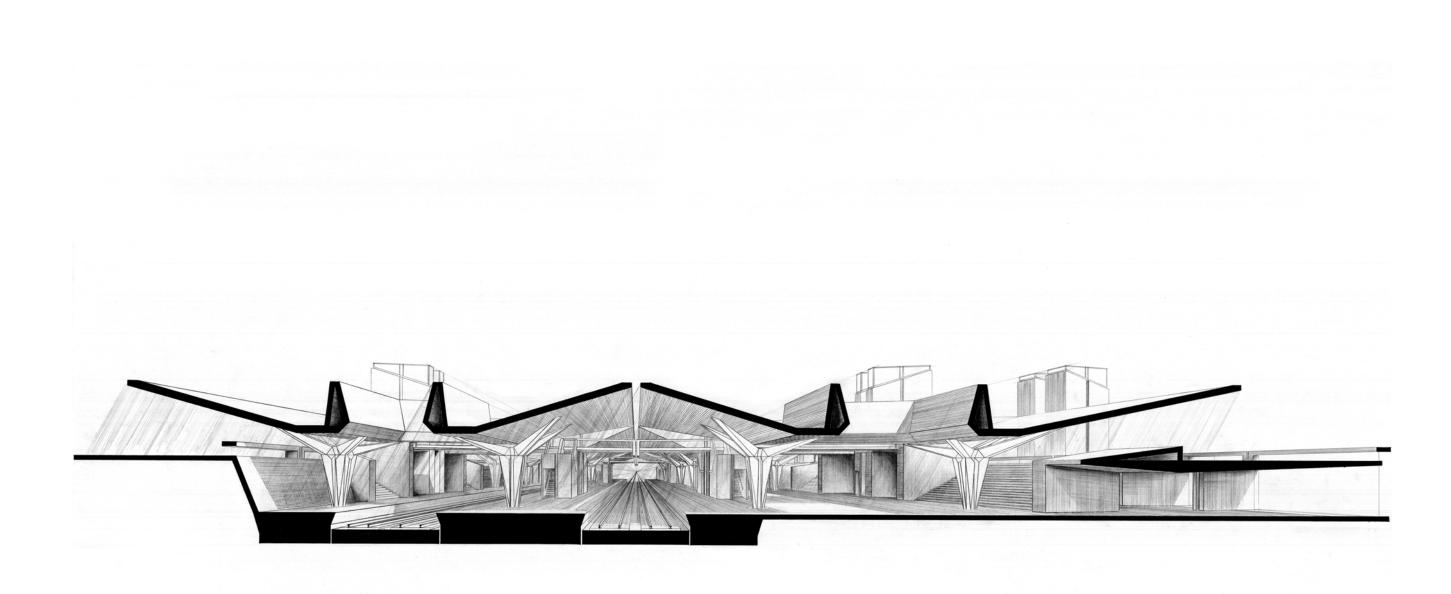


Plan of Main Promenade Level

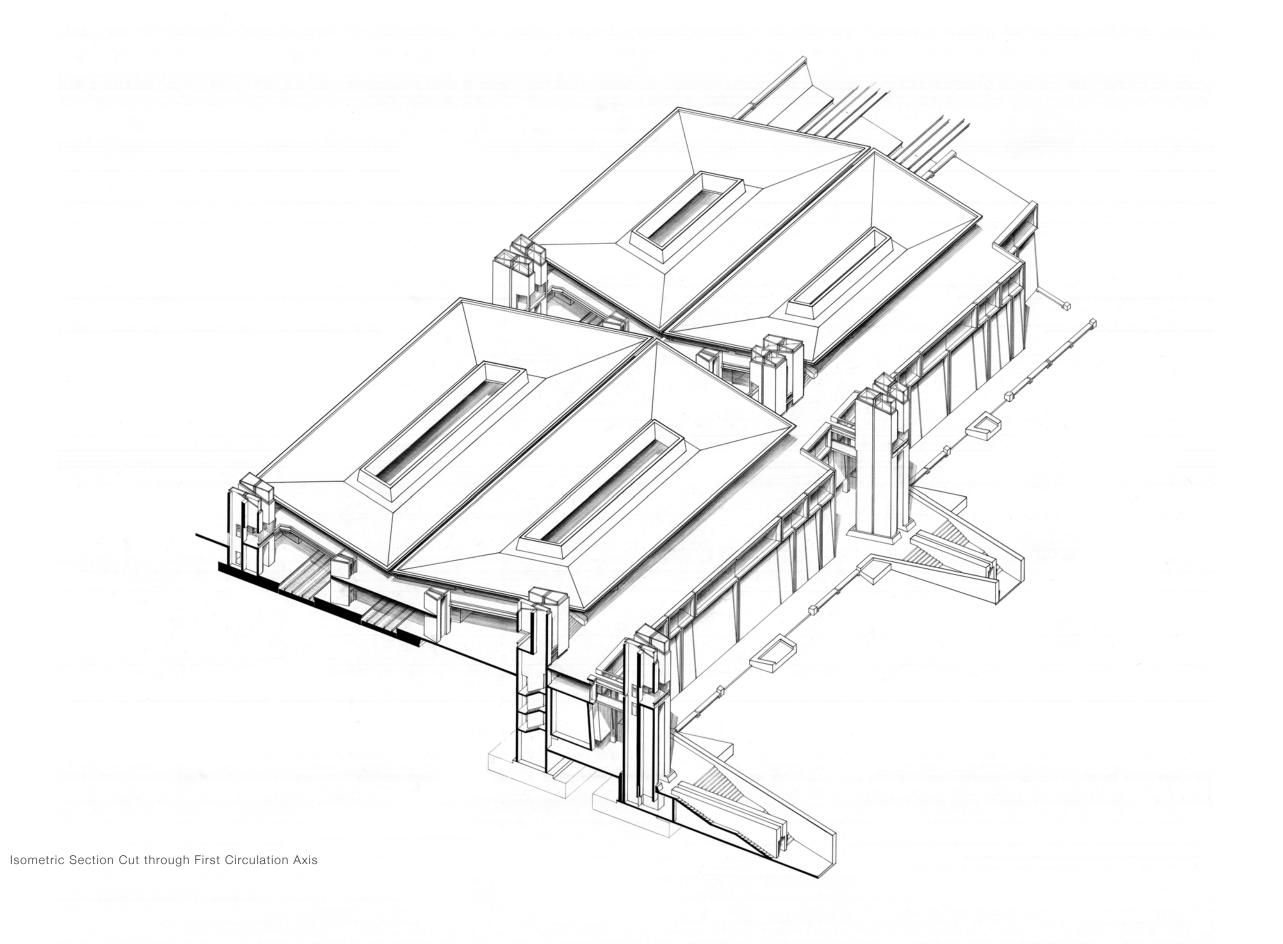


Plan of Viewing Rooms/Platform Level



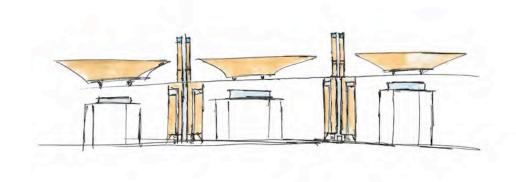


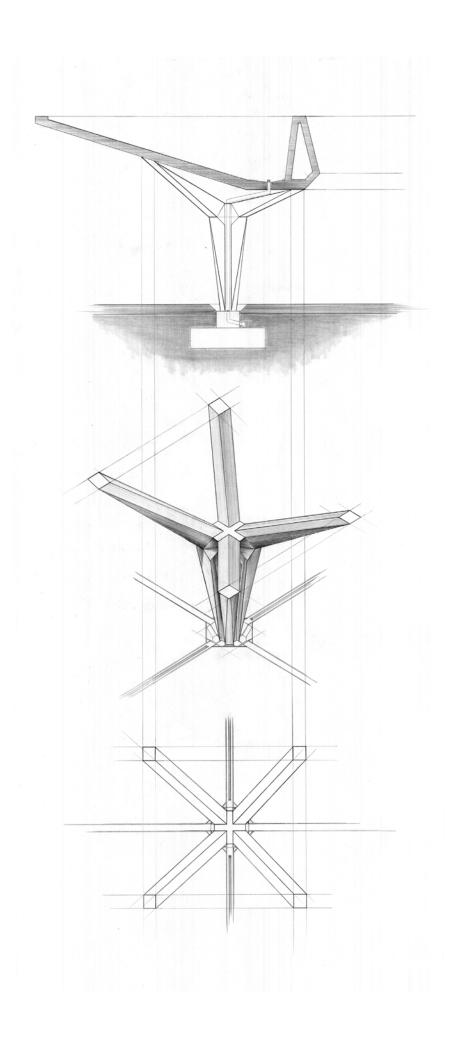
Section Perspective Cut through First Bay of Canopies



MAIN ELEMENTS

The main elements that compose the station are: the Columns and Canopies, the Towers, and the Viewing Rooms. Each element has its own function but together they create a space and generate an experience based around the enjoyment of the landscape of Lugano and its surroundings. They all serve to achieve the ultimate goal of enjoying a view.

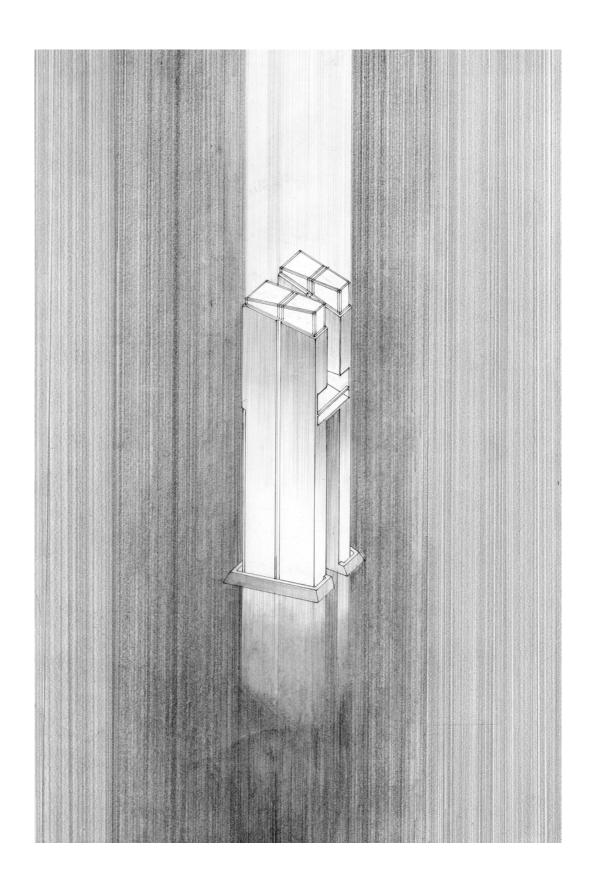




THE COLUMNS AND CANOPIES

Travelers arrive in a space that is very narrow - the train. As they disembark and make their way out of the station they transition to an open and unrestricted space. The canopies are shaped in a way that allows for a gradual transition from an enclosed space to the outside. This is achieved by introducing angles and having the canopies visually open up to the outside, both in plan and section. They are supported by columns that appear to be very delicate, and give the impression of lightness, in contrast to the massive canopies.

Section Elevation of Column and Canopy
Isometric and Plan of Column



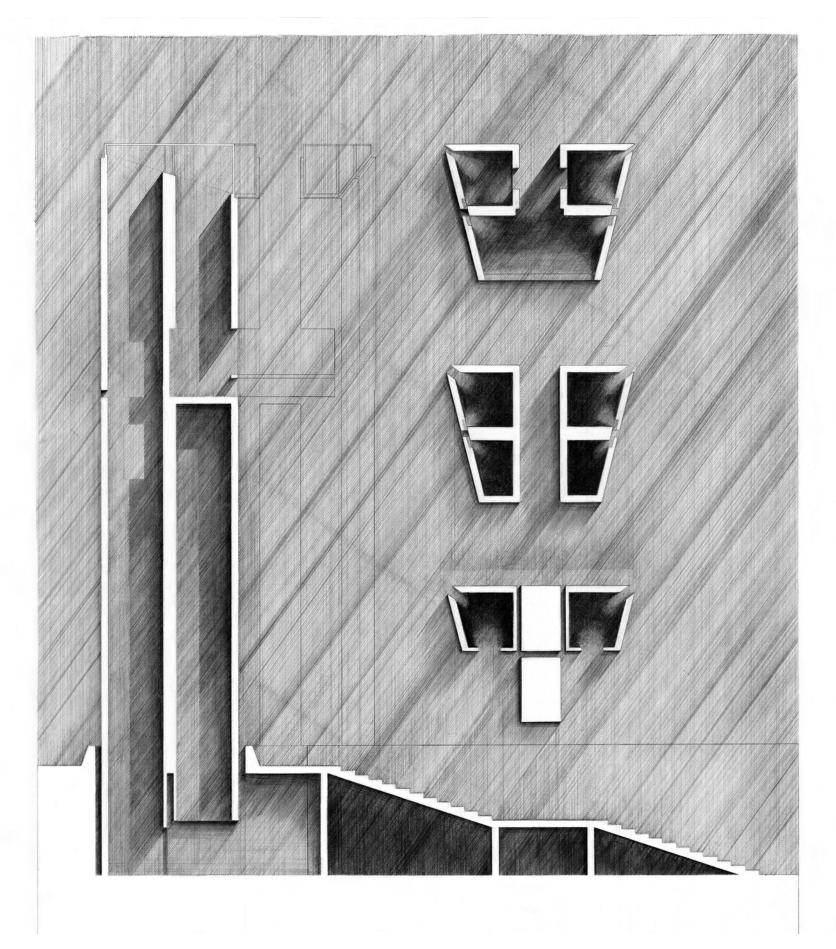
THE TOWERS

The towers signal the way down into the city. The front towers also serve to separate the traveler from the station as they cross the bridge onto the tower. This begins the action of exiting the station and entering Lugano.

In the tower the traveler is presented with another viewing room as they get a final view of Lugano before beginning their descent.

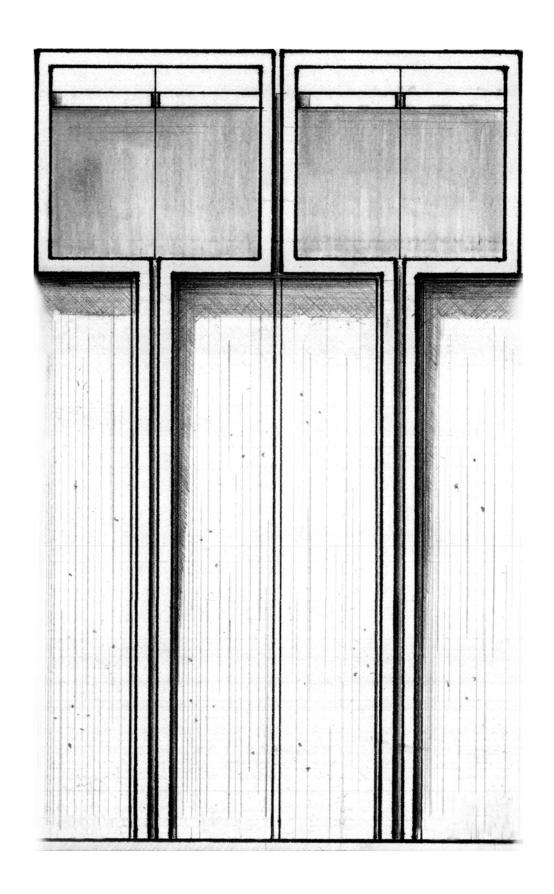
This viewing room has two light wells, in addition to the main opening, and is thus filled with light. This is in contrast to the darkness of the room at the bottom of the tower where travelers arrive after taking the elevator.

At night, the top of the towers light up, becoming a beacon on top of the mountain signaling the way in and out of the city, the gateway.



Section through Elevator Tower

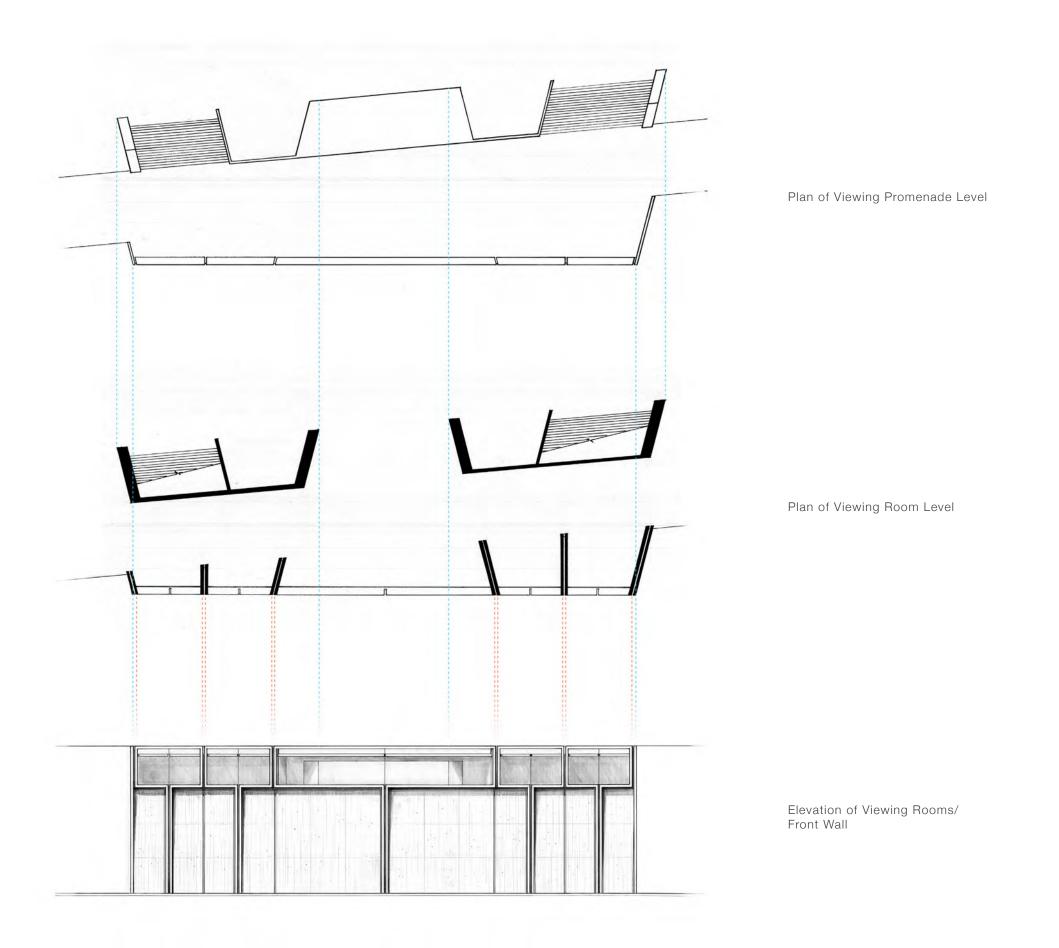
Plans of Top, Middle, and Bottom Levels of Tower



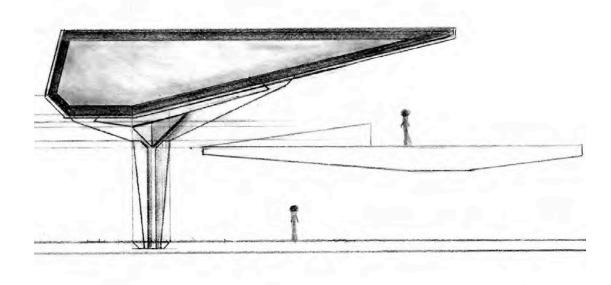
THE VIEWING ROOMS

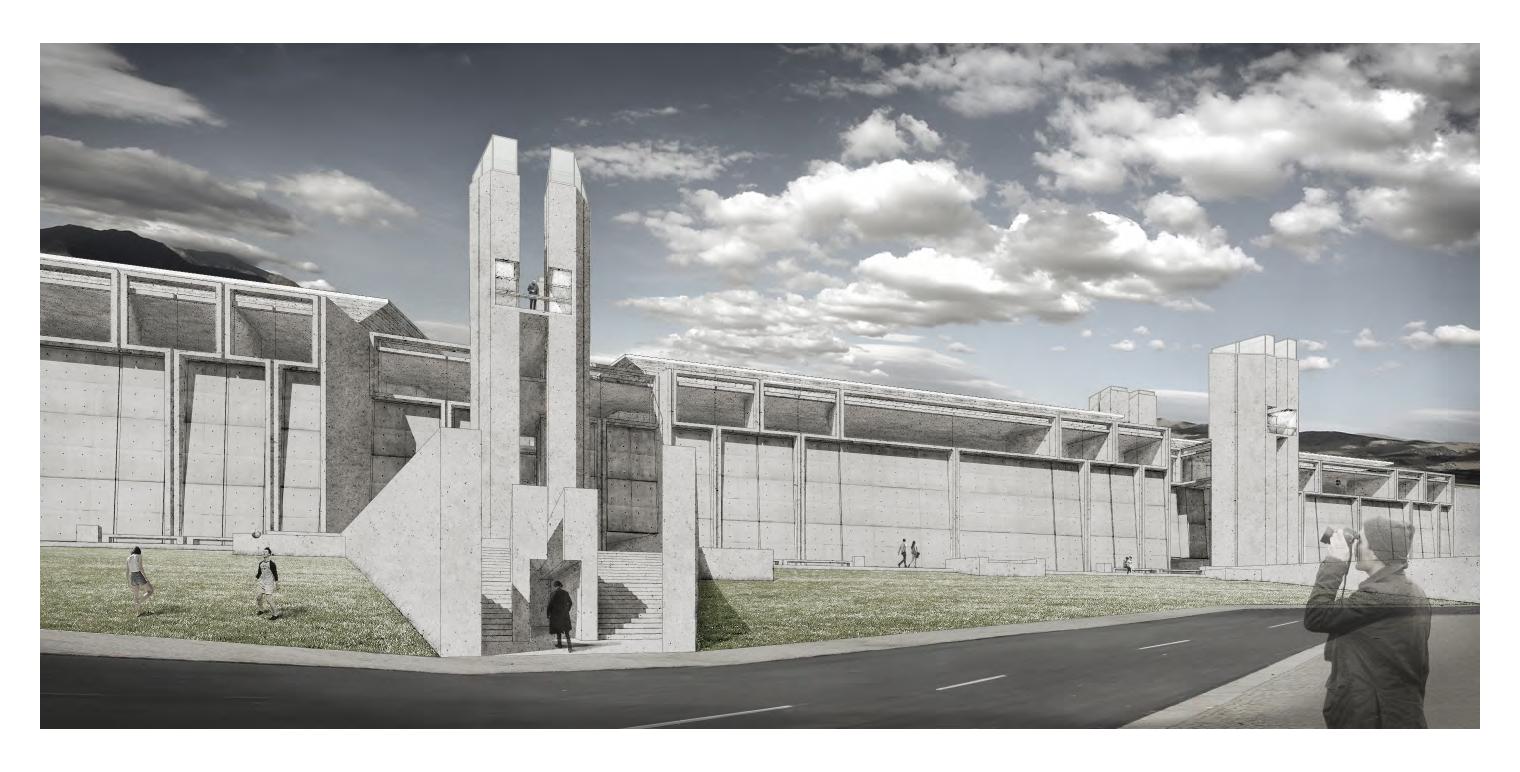
The viewing rooms are located on the eastern most side of the station overlooking Lugano. There are a total of twelve smaller rooms providing a higher level of intimacy and three larger, central ones. They are accesible to the public but are located perpendicular and away from the two circulation axes so as to not interfere with travelers on the go. This provides a space that is calm and allows for contemplation of the landscape.

The main promenade runs along the top level of the station directly on top of the more private viewing rooms. This whole space is unenclosed and functions as a plaza where the public can gather.



INHABITING THE SPACE
People in relationship to the Station





Perspective of East Entrance



Perspective of West Entrance



Perspective Under the Canopies



Perspective of Top Promenade



Perspective of Viewing Room at the Top of the Tower



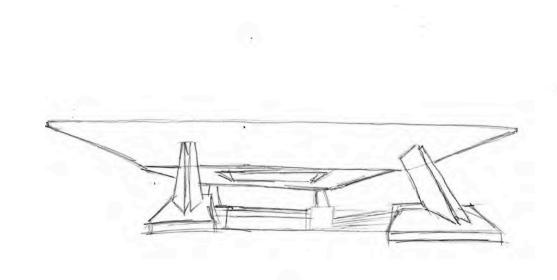
Perspective of Room at the Bottom of the Tower

SCALE STUDIES

Understanding the Mass

These four studies are an attempt to understand the scale of the station in relationship to the site where it is located. To do this, the station is removed from Lugano and is transplanted to major cities around the world: New York City and London which have a strong vertical urban quality, and Washington D.C. and Paris, which as a whole are more horizontal than vertical in character (similar to Lugano). The station is propped up vertically to mirror another type of building that is also very tall (long), the skyscraper.

These studies are then evidence that due to the large size of the station, it can't be understood by merely looking at its immediate surroundings (since those individual buildings are tiny in comparison) but instead it has to be seen as part of a larger context, the whole urban mesh that comprises the city of Lugano.



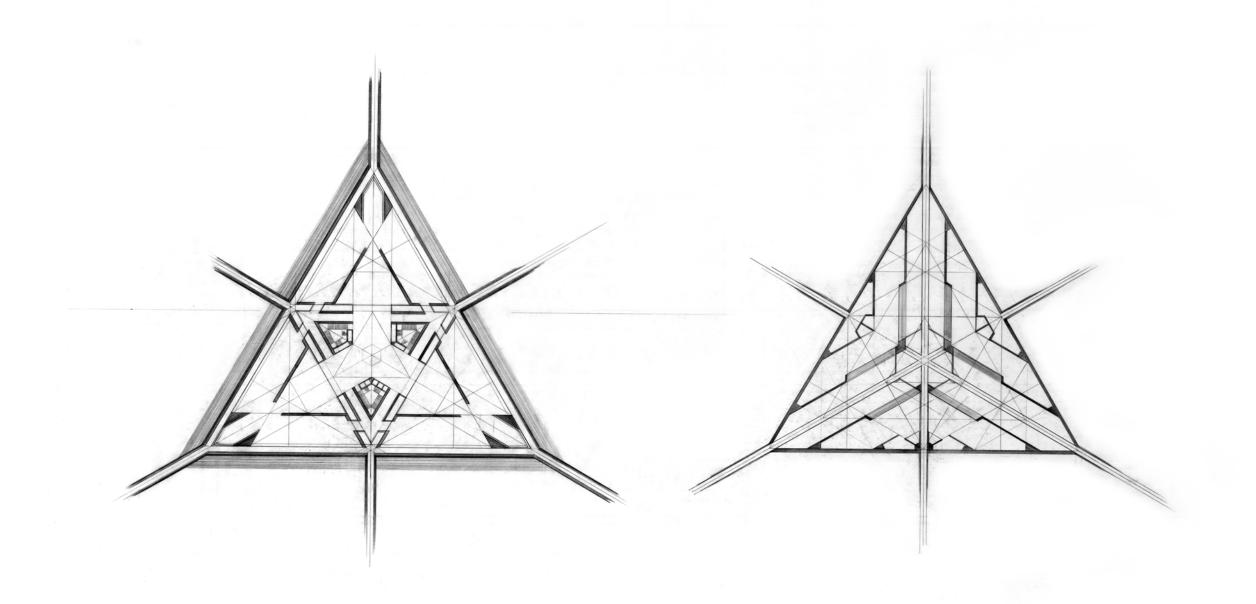




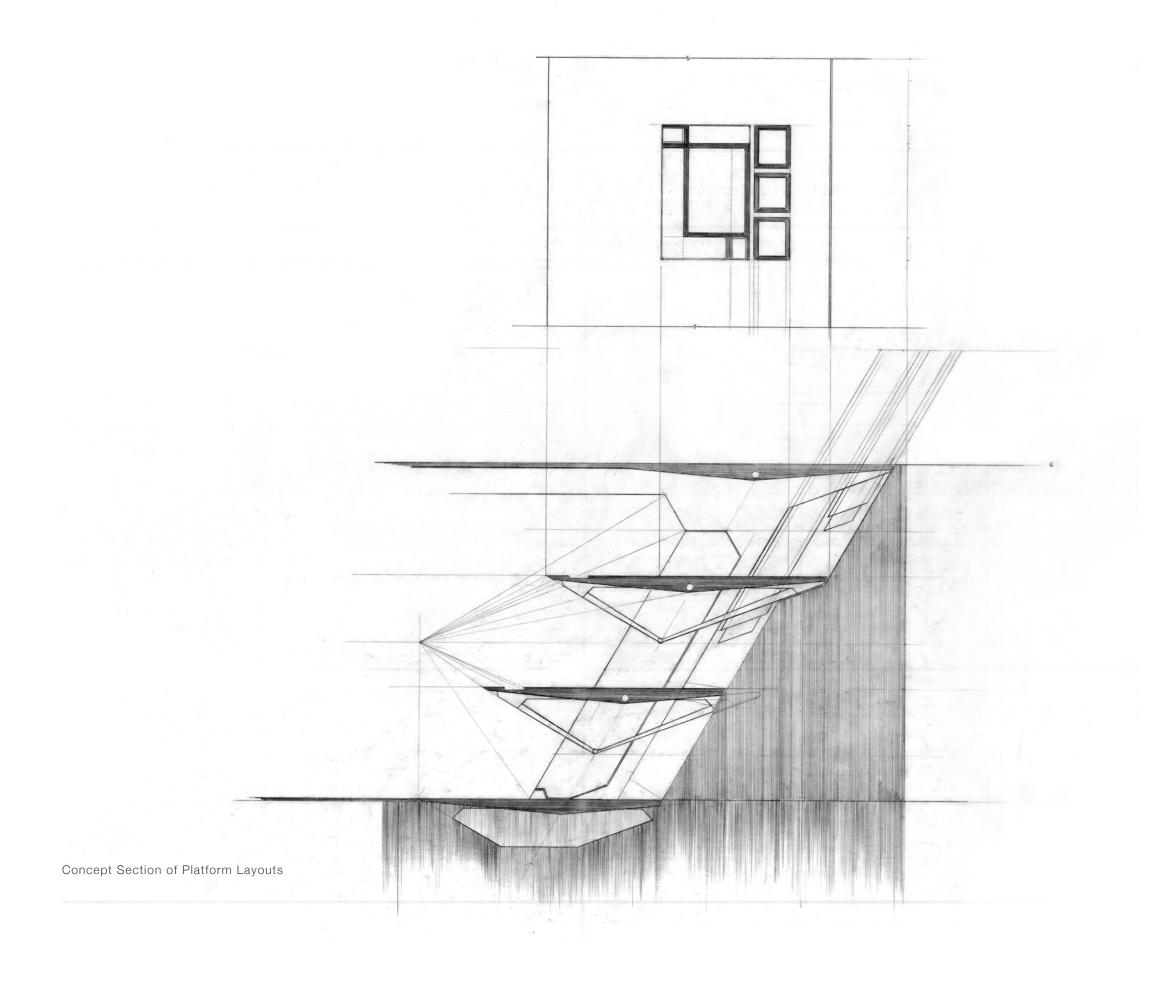


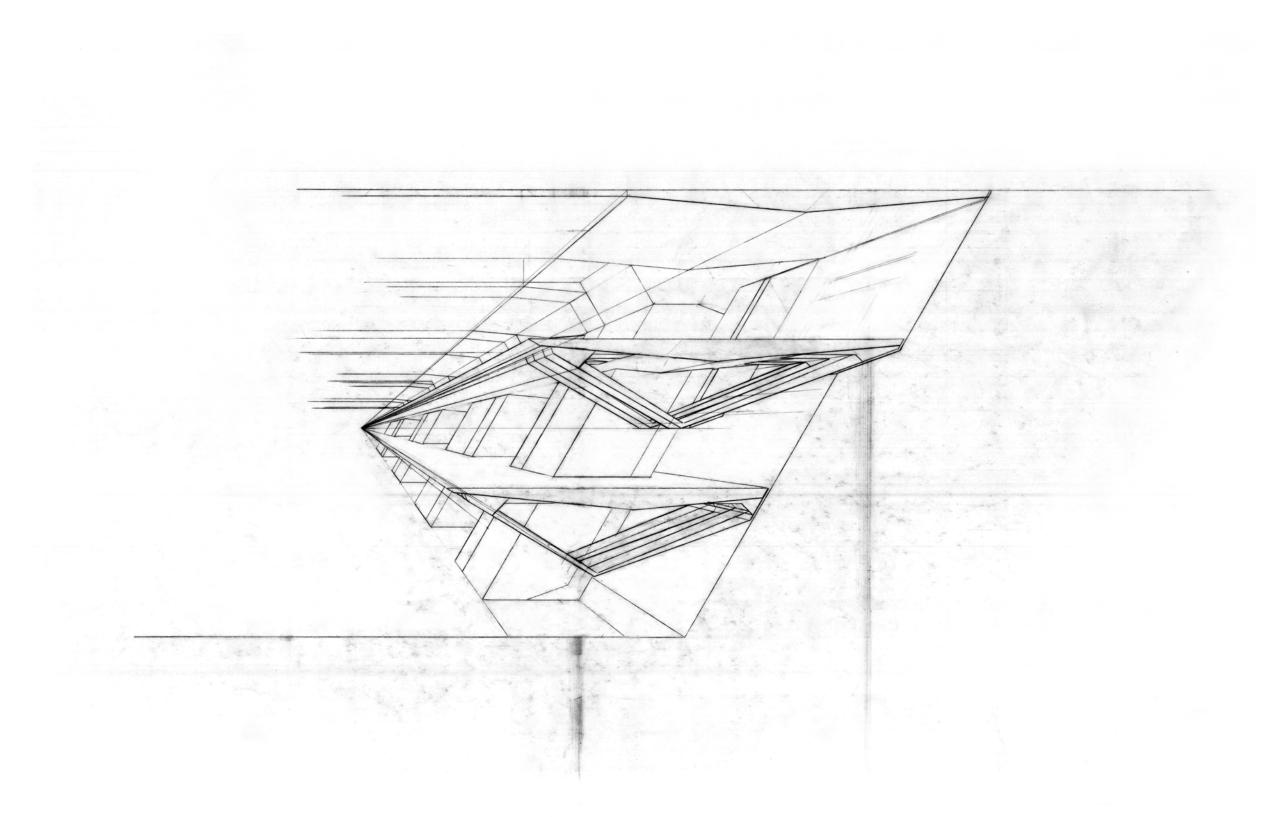


DESIGN PROCESSFinding the Station

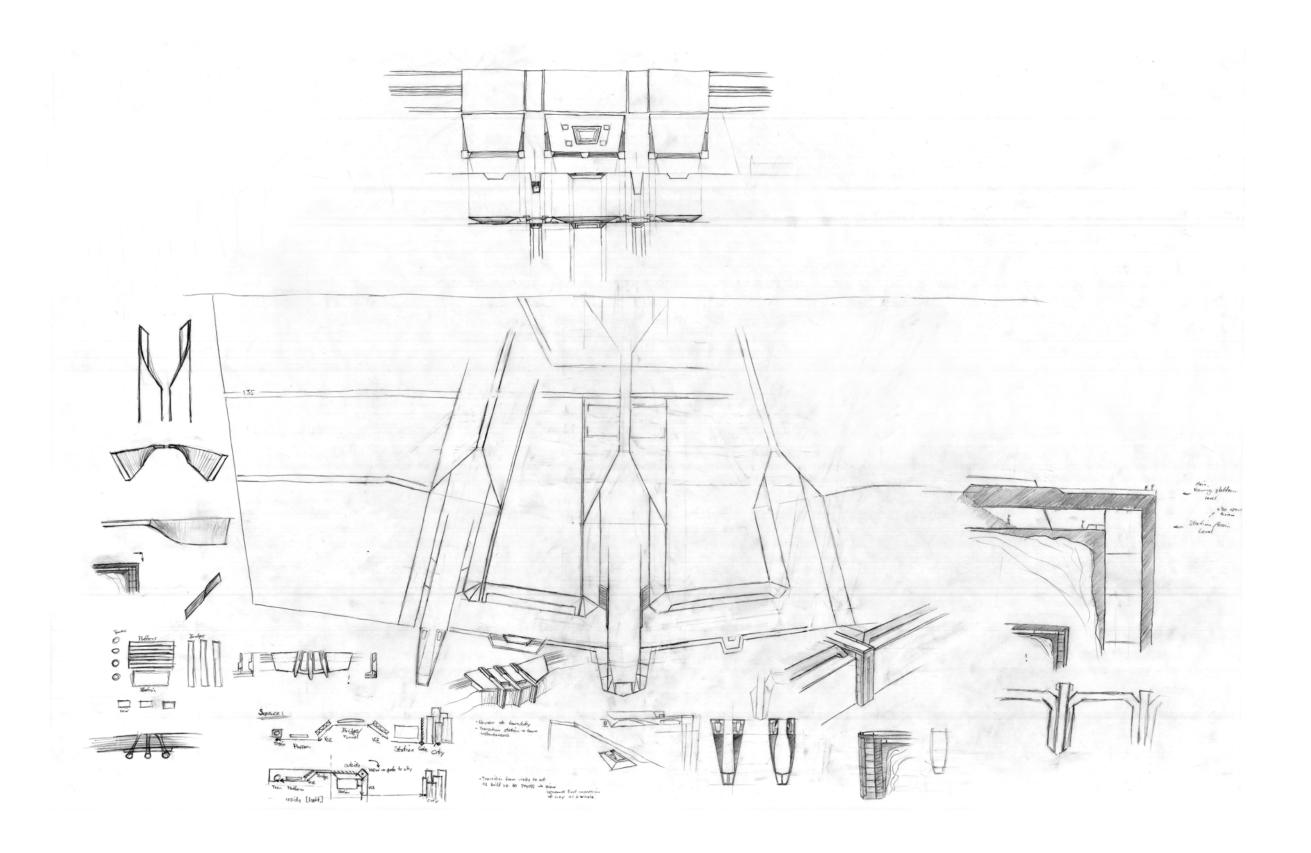


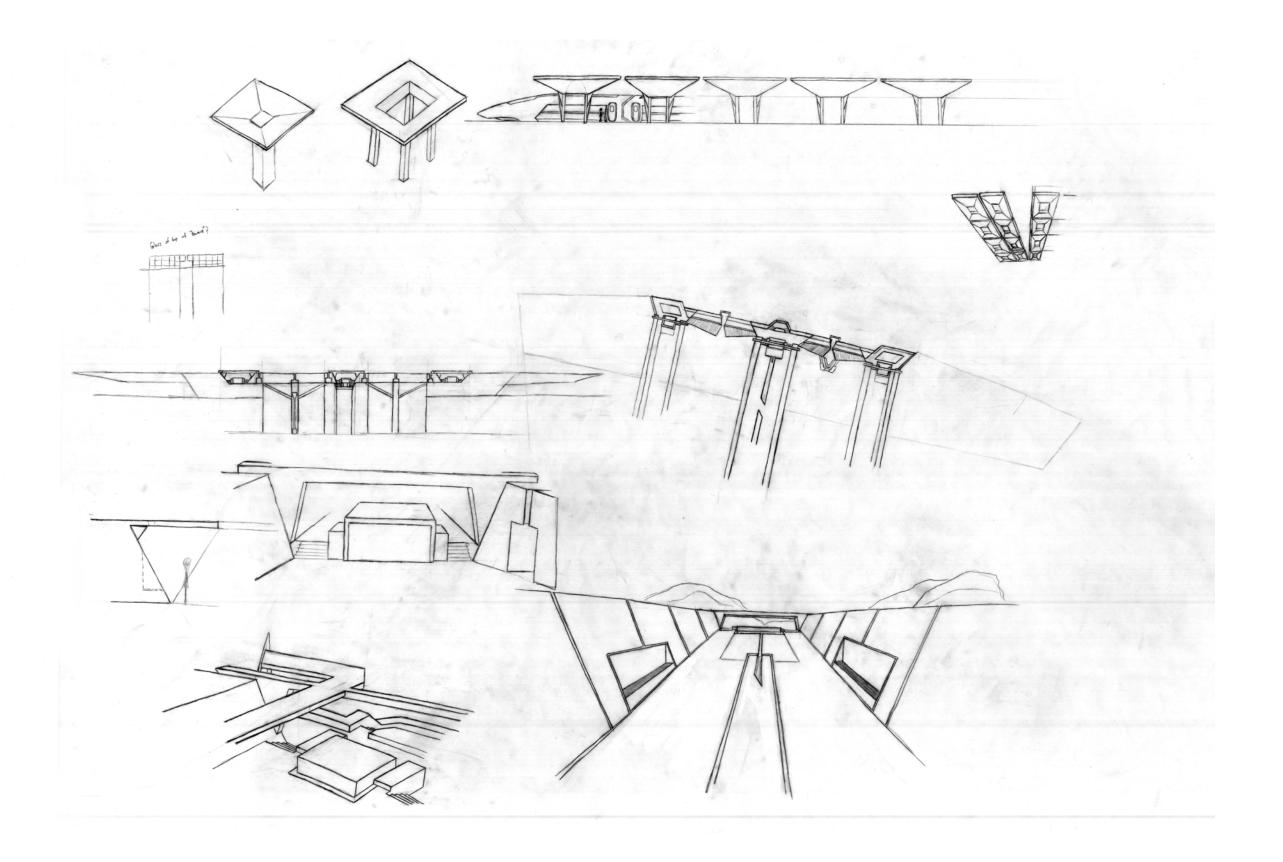
Concept Diagram of Platform Layouts

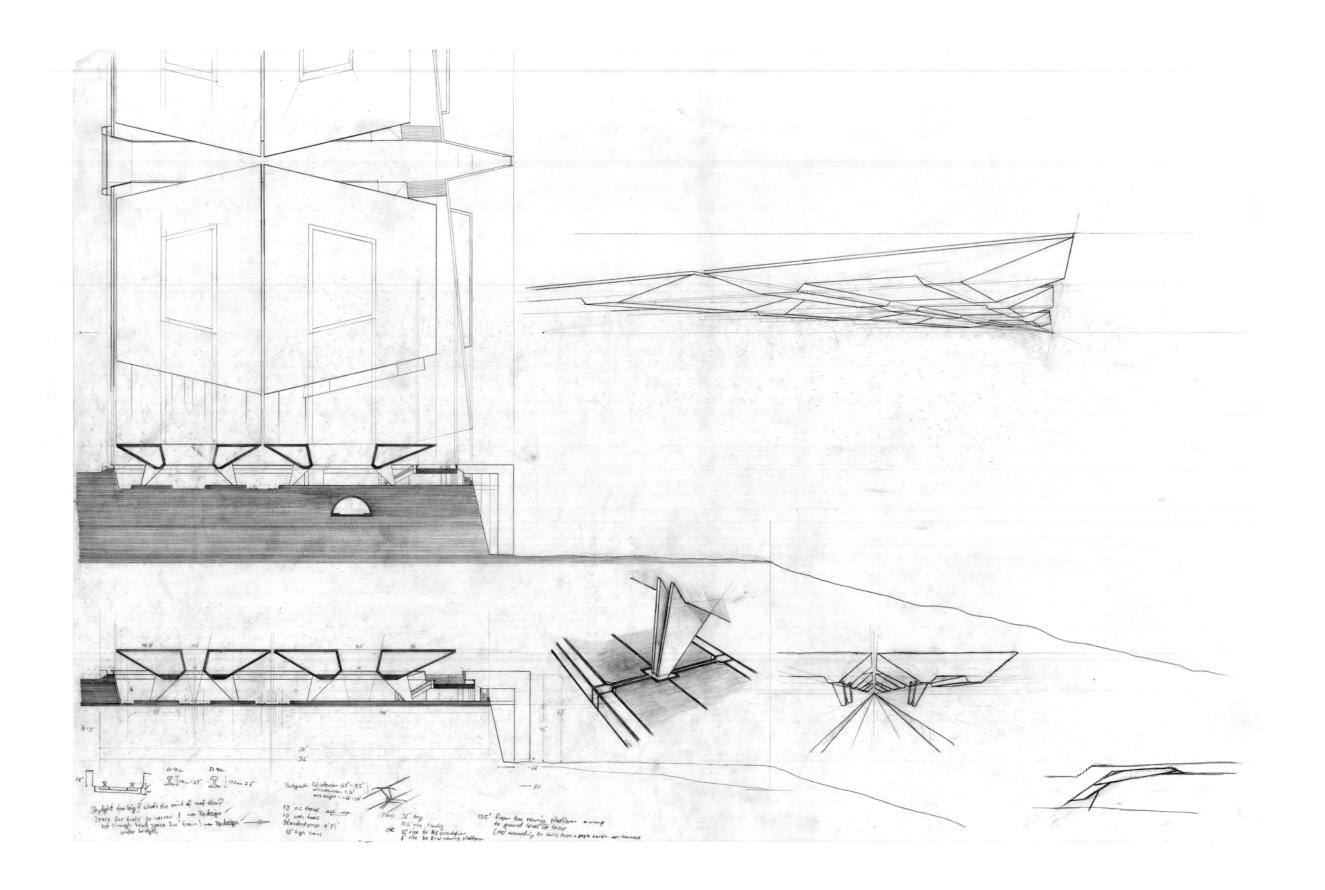


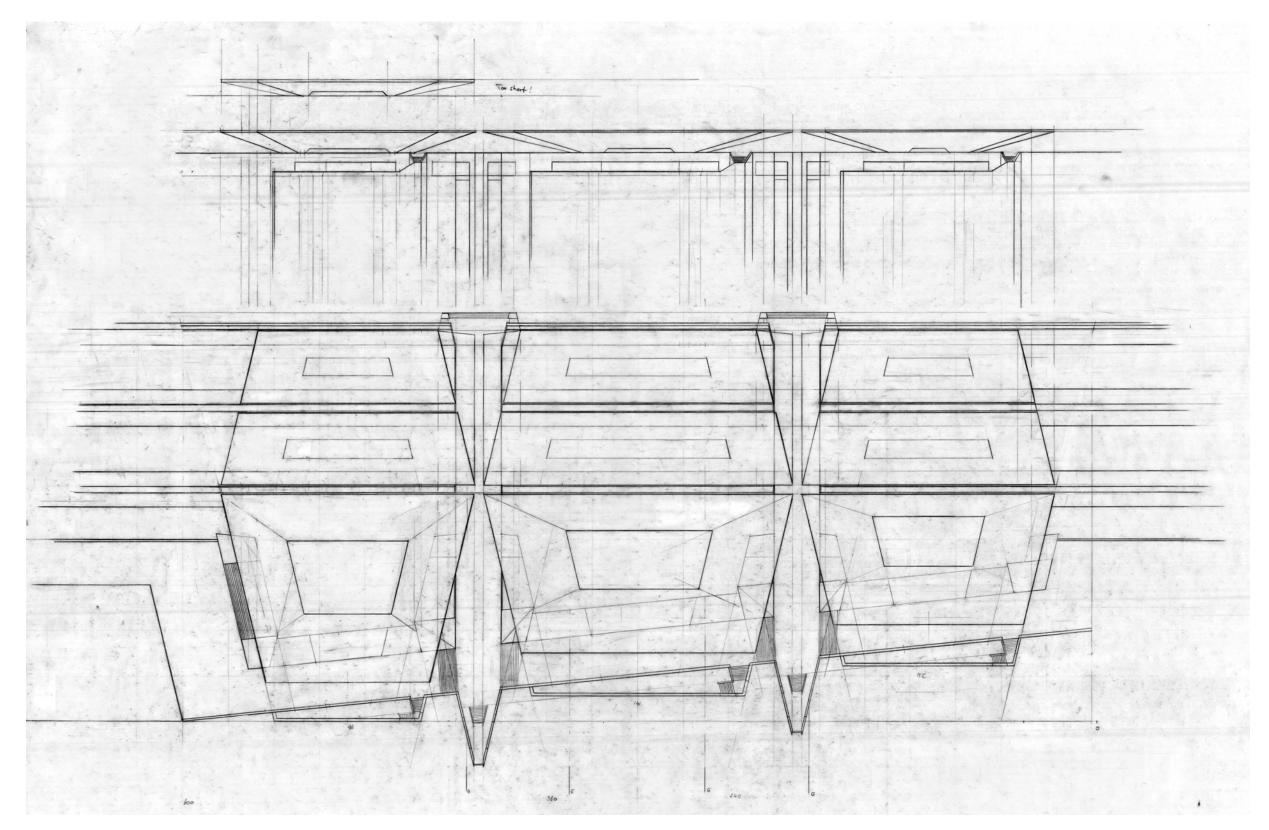


Concept Section Perspective of Platform Layouts

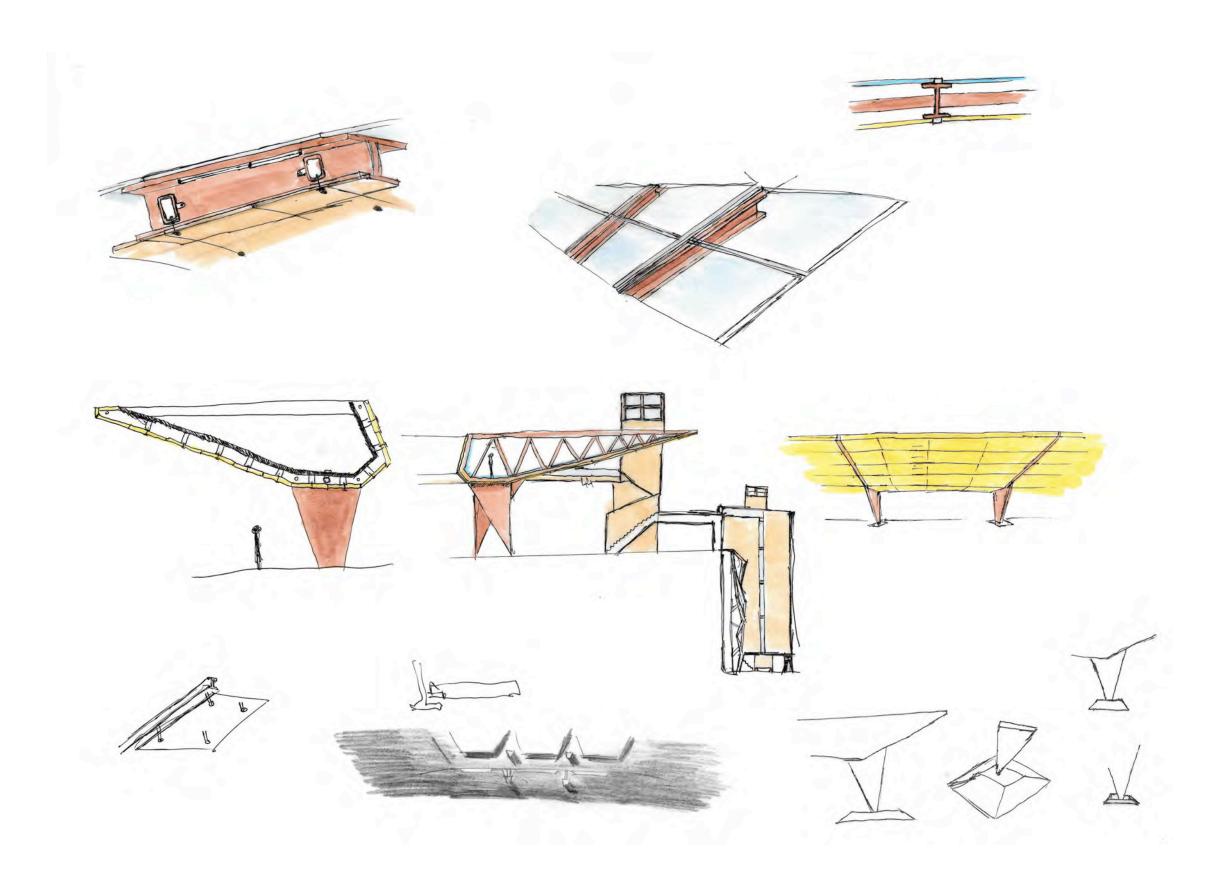


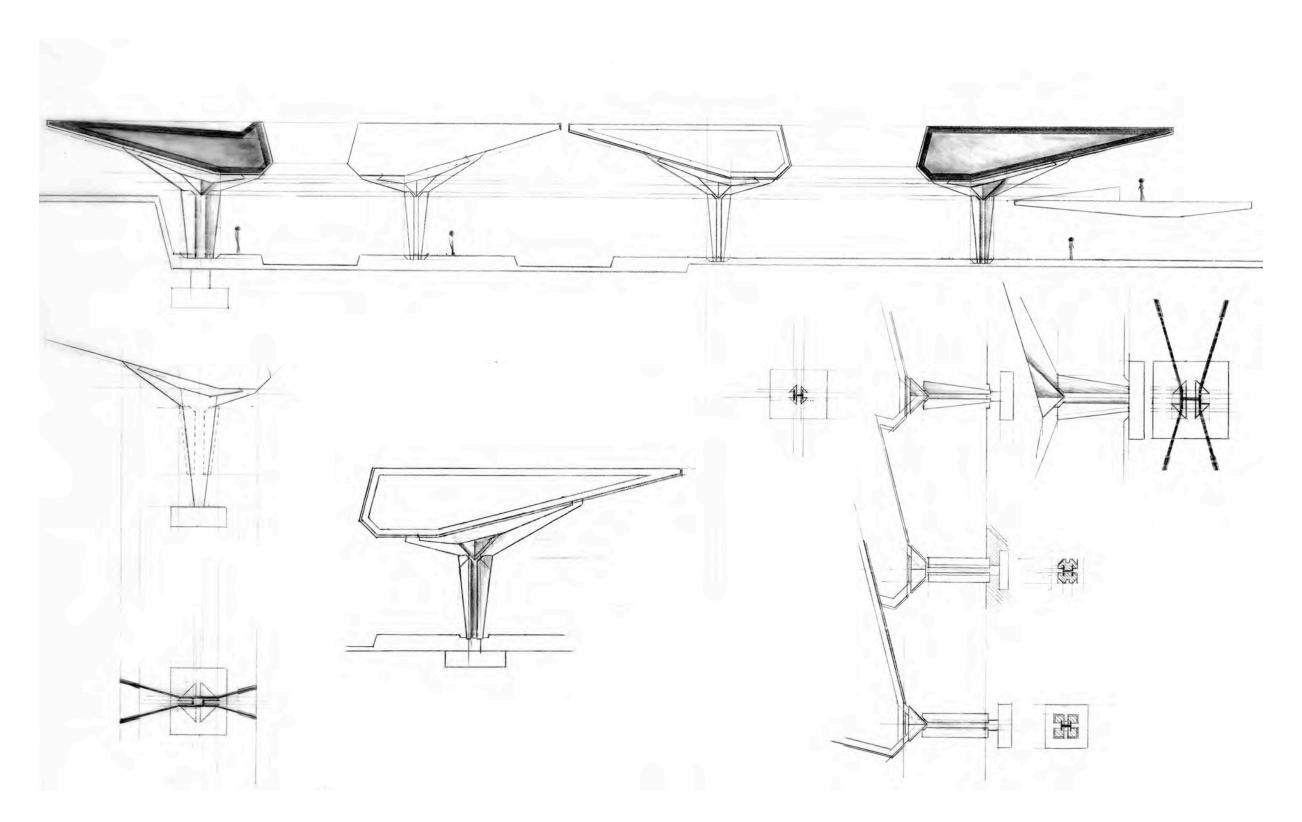




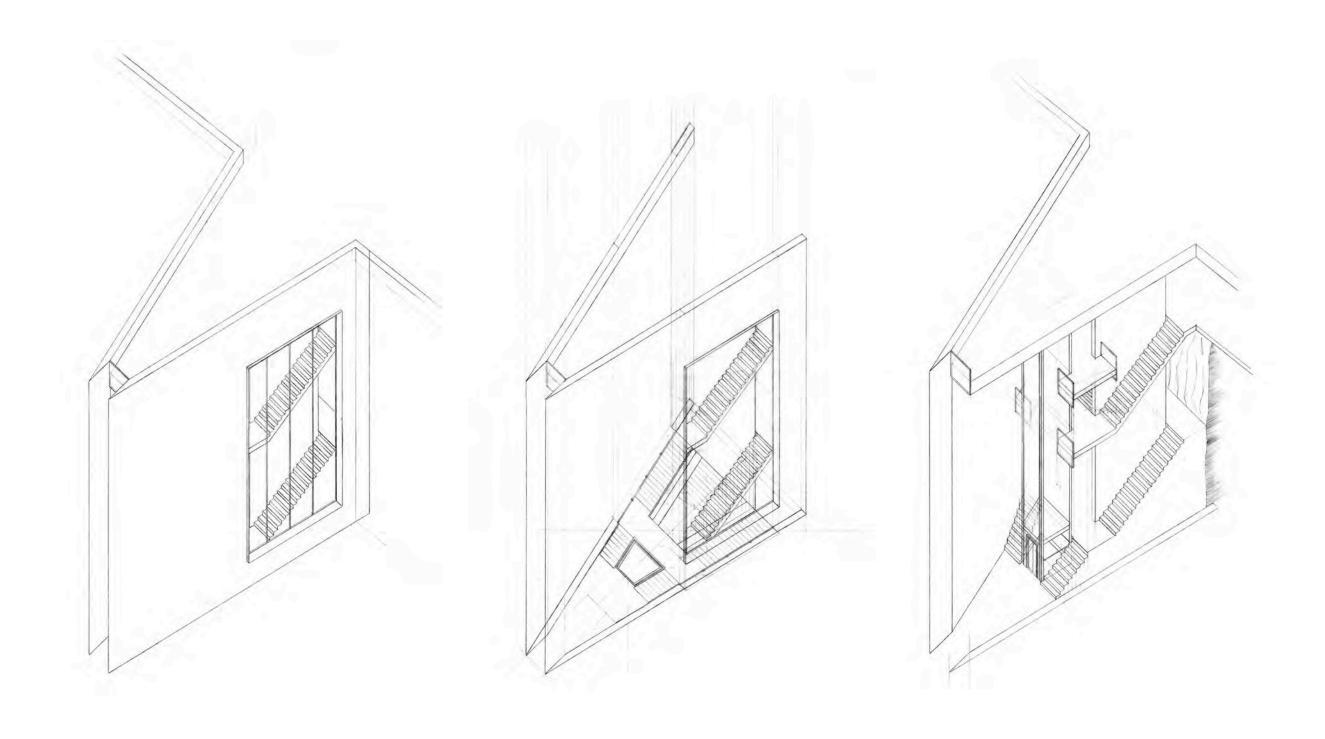


Elevation and Plan of Initial Concept

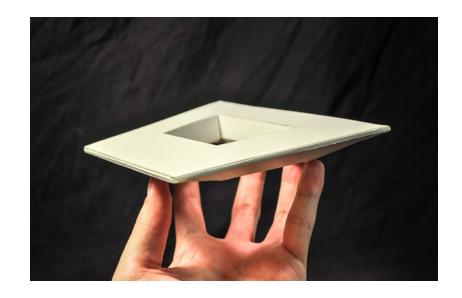


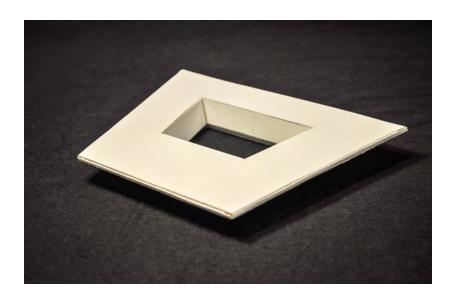


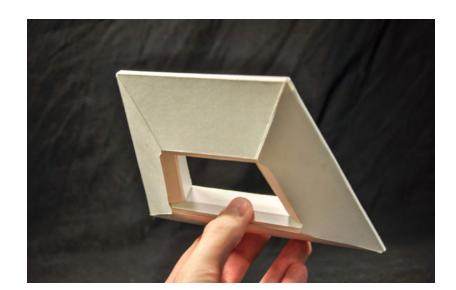
Iterations of Columns and Canopies



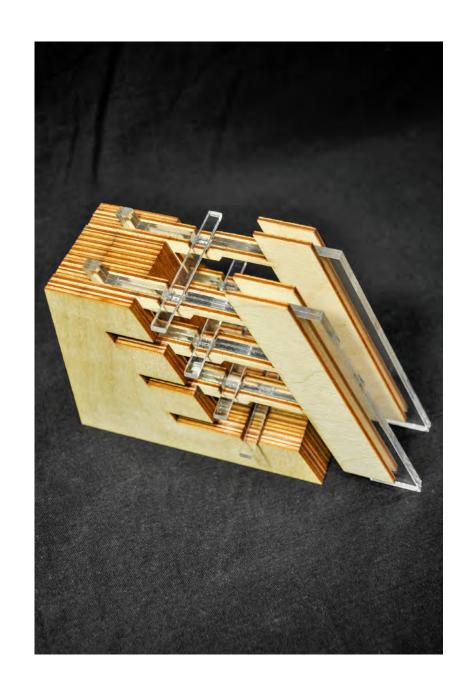
Axonometric Views of Initial Tower Concept



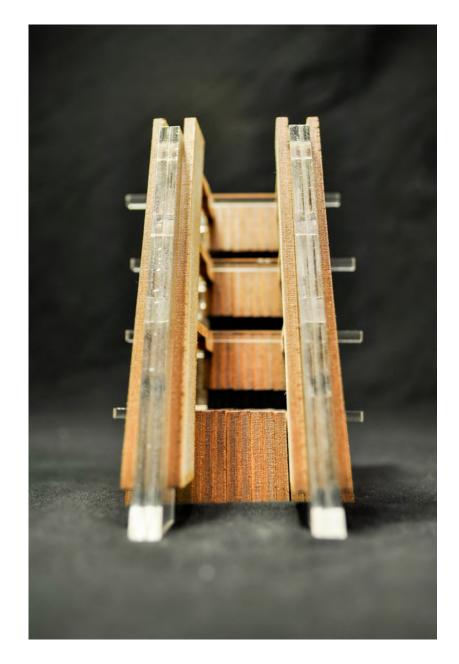




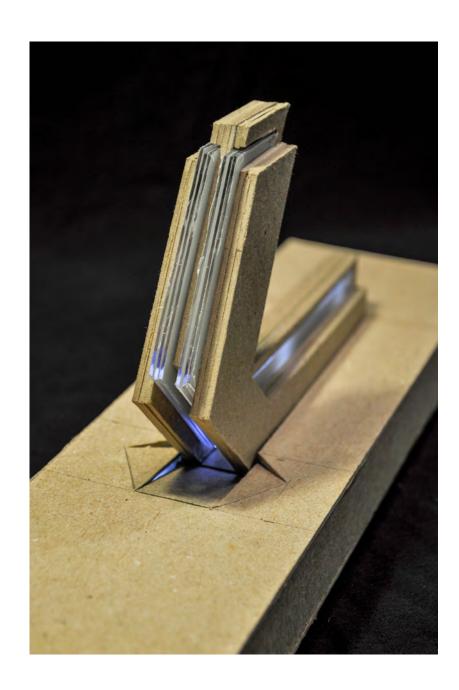
Model of Canopy

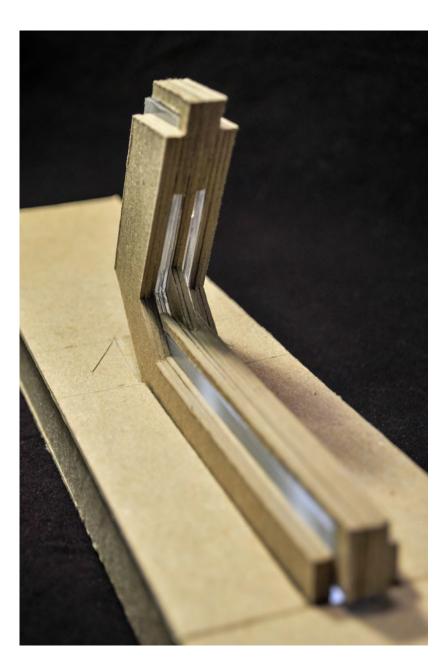


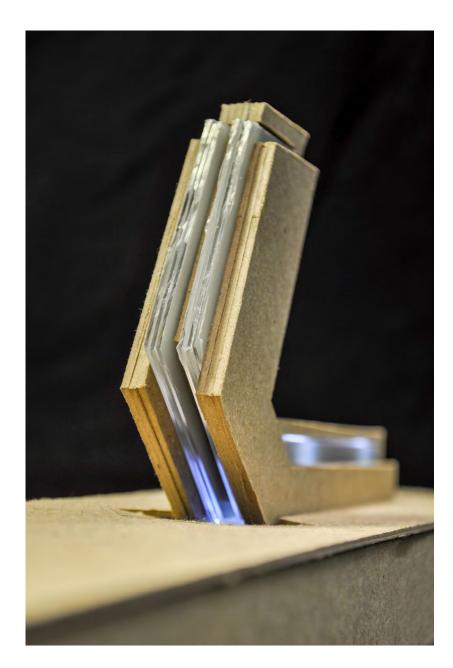




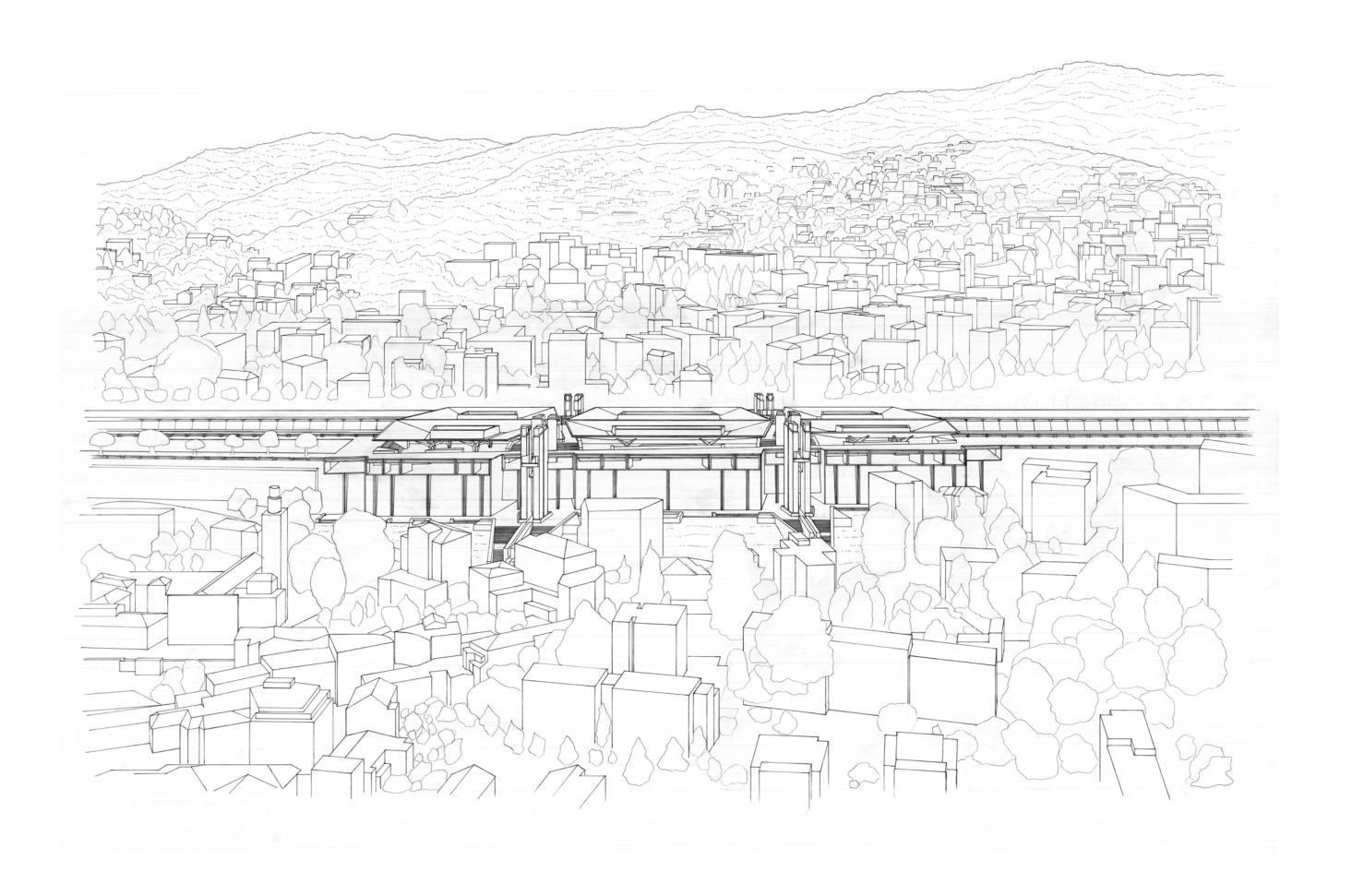
Concept Model of Station with Towers







Concept Model of Tower



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