

**EXPERIMENT**  
**GSAPP PORTFOLIO 2020**  
LEON ESMAEEL

# CONTENTS

**SPATIAL SFUMATO**

**03**

**BYE HOUSE**

**19**

**URBAN POROSITY**

**41**

**SLOW REGENERATOR**

**51**

**SKYSCRAPER MUSEUM**

**58**

**SKYSCRAPER STUDIES**

**64**

**MUQARNAS**

**69**

# SPATIAL SFUMATO

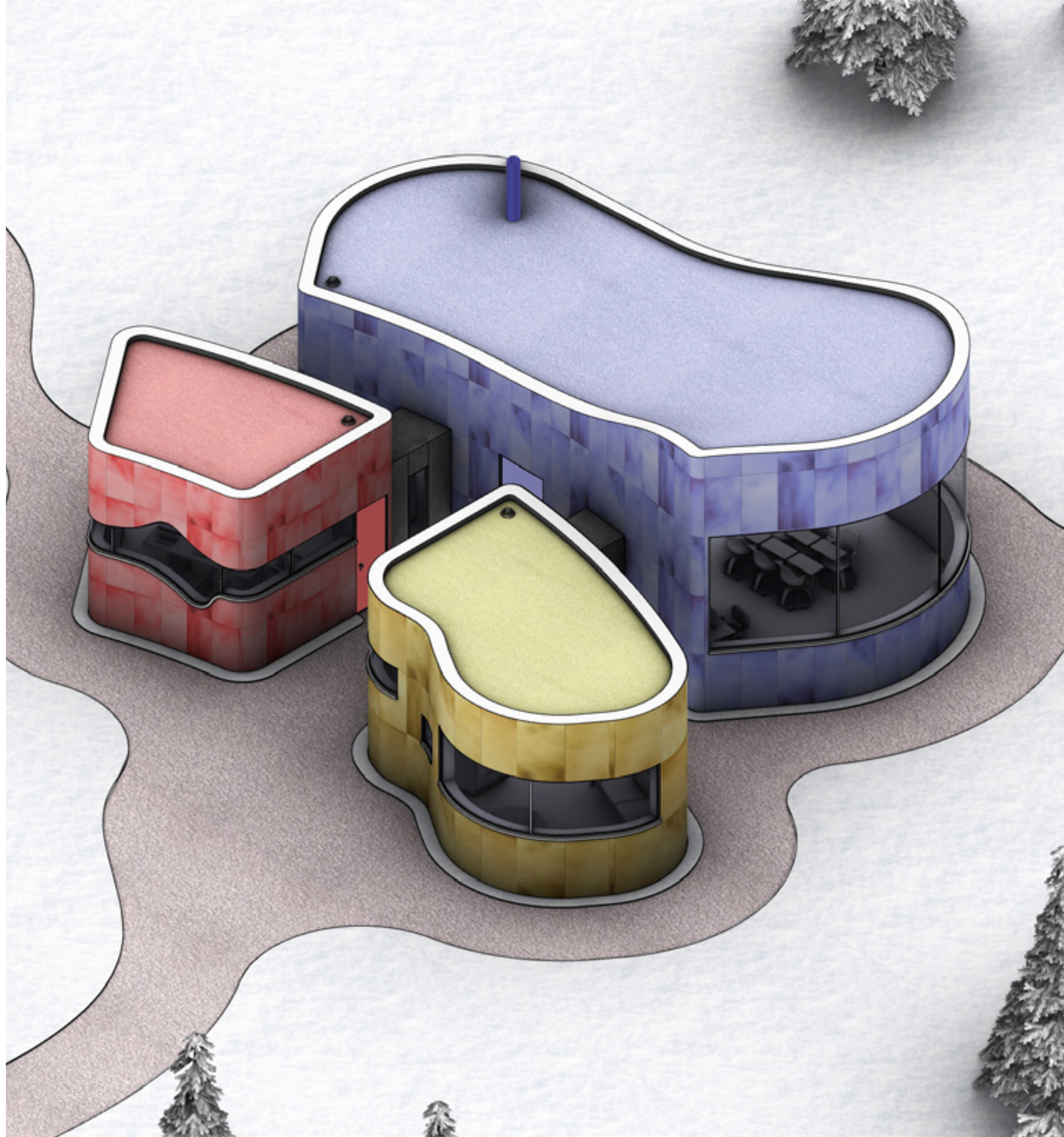
Advanced Design Studio, Spring 2020

Location: Site-less

Professor: Michael Bell

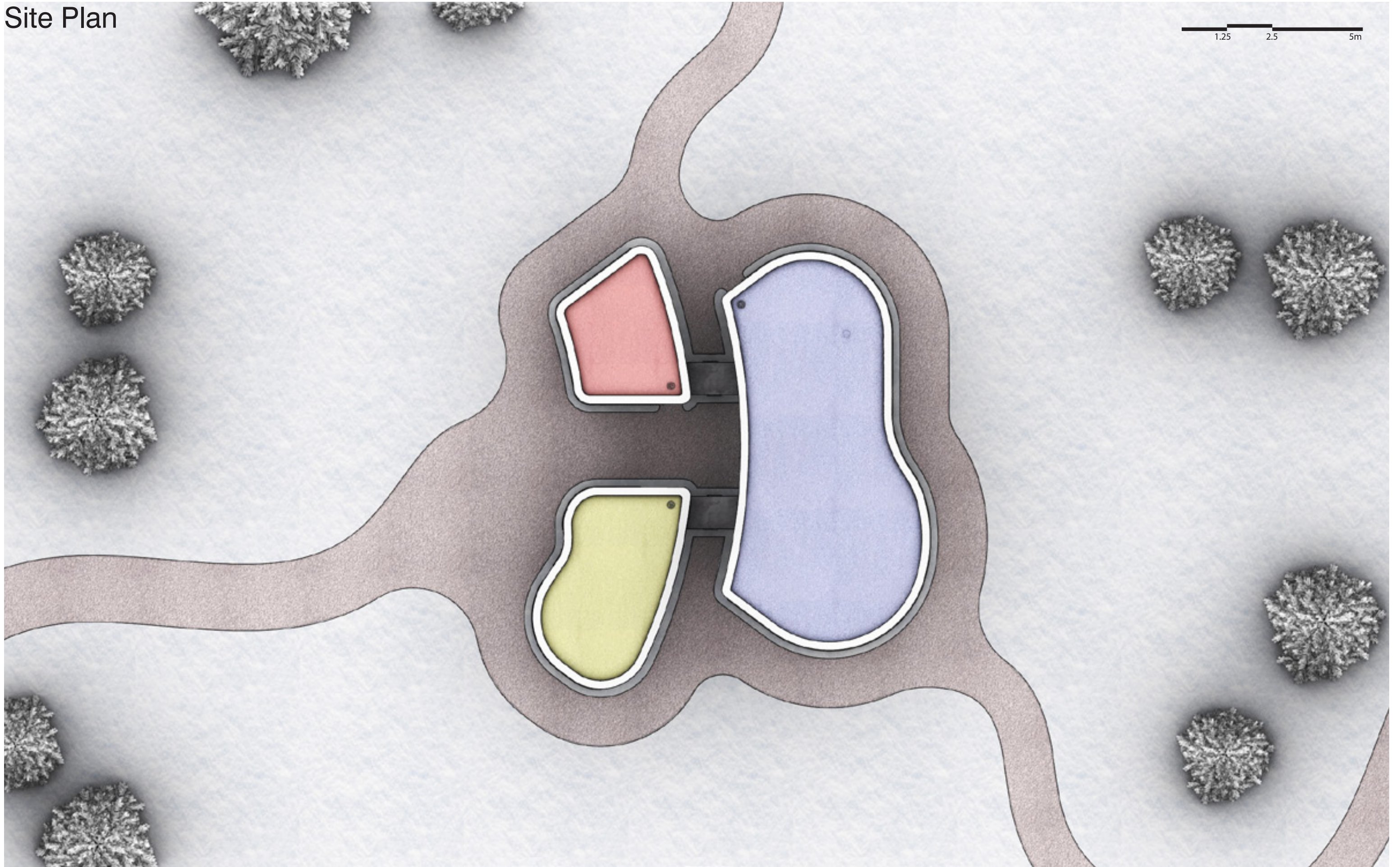
Designed as a site-less prototype, this 1000 ft<sup>2</sup> teacher-less micro school challenges the meaning of a school in terms of its pedagogical approach, conceptual configuration, spatial characteristics, and programmatic functions. With the possibility of being constructed anywhere, this school could be placed in a tundra climate, a Sonoran Desert, or on a Hawaiian coastline. From the inside, the students experience a white often expanding volume; the push and pull effect caused by the “moving” walls and dancing windows, which frame unique views to the outside, acts as an educational apparatus for the kids. In other words, the perceptual illusion caused by the blurring of boundaries of inside and outside makes this architecture a chief actor in the role of educating kids. This micro school aims to revolutionize the way kids learn in schools as it rethinks the most pressing matters of the future of learning.

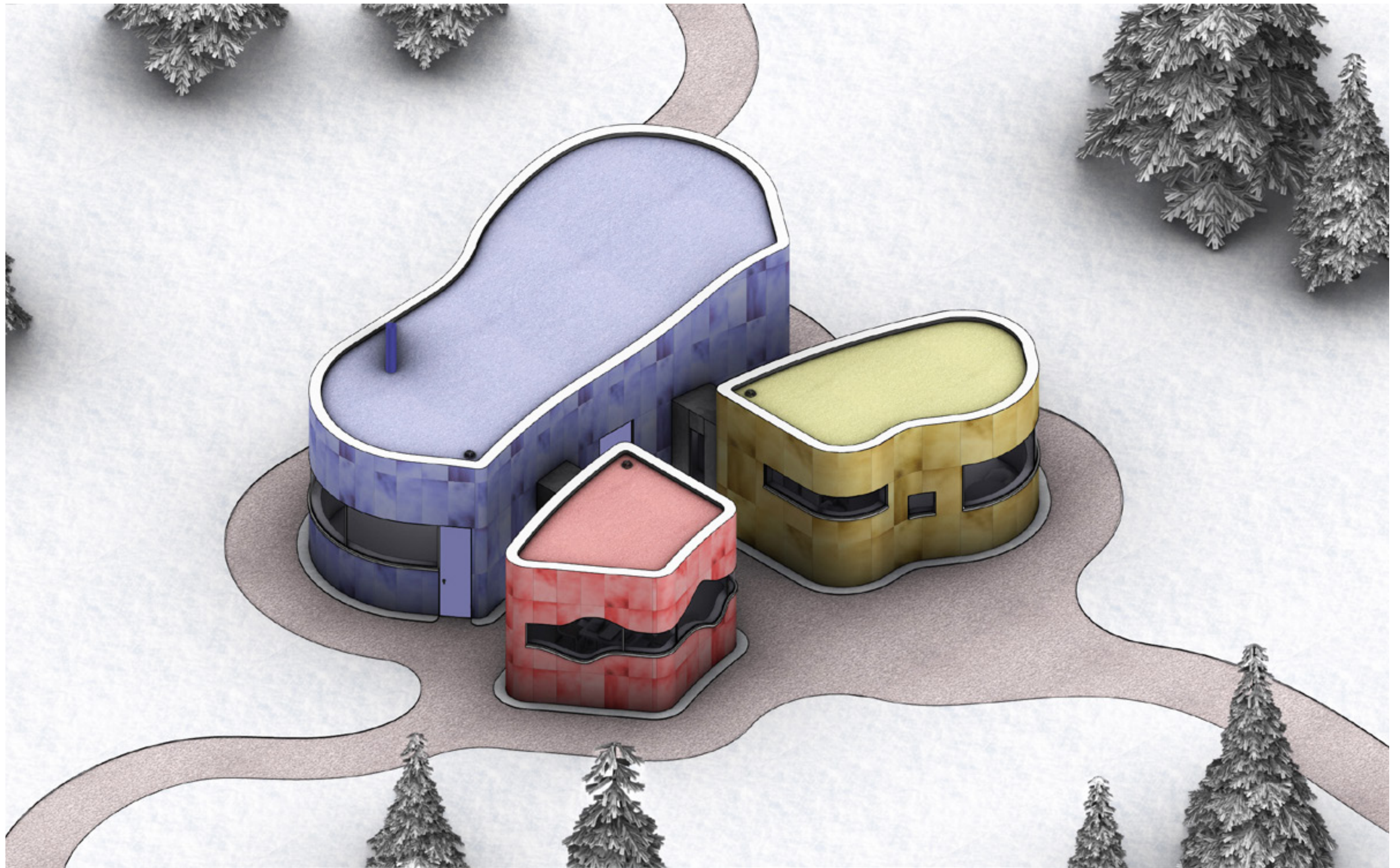
# TEACHER-LESS MICRO SCHOOL

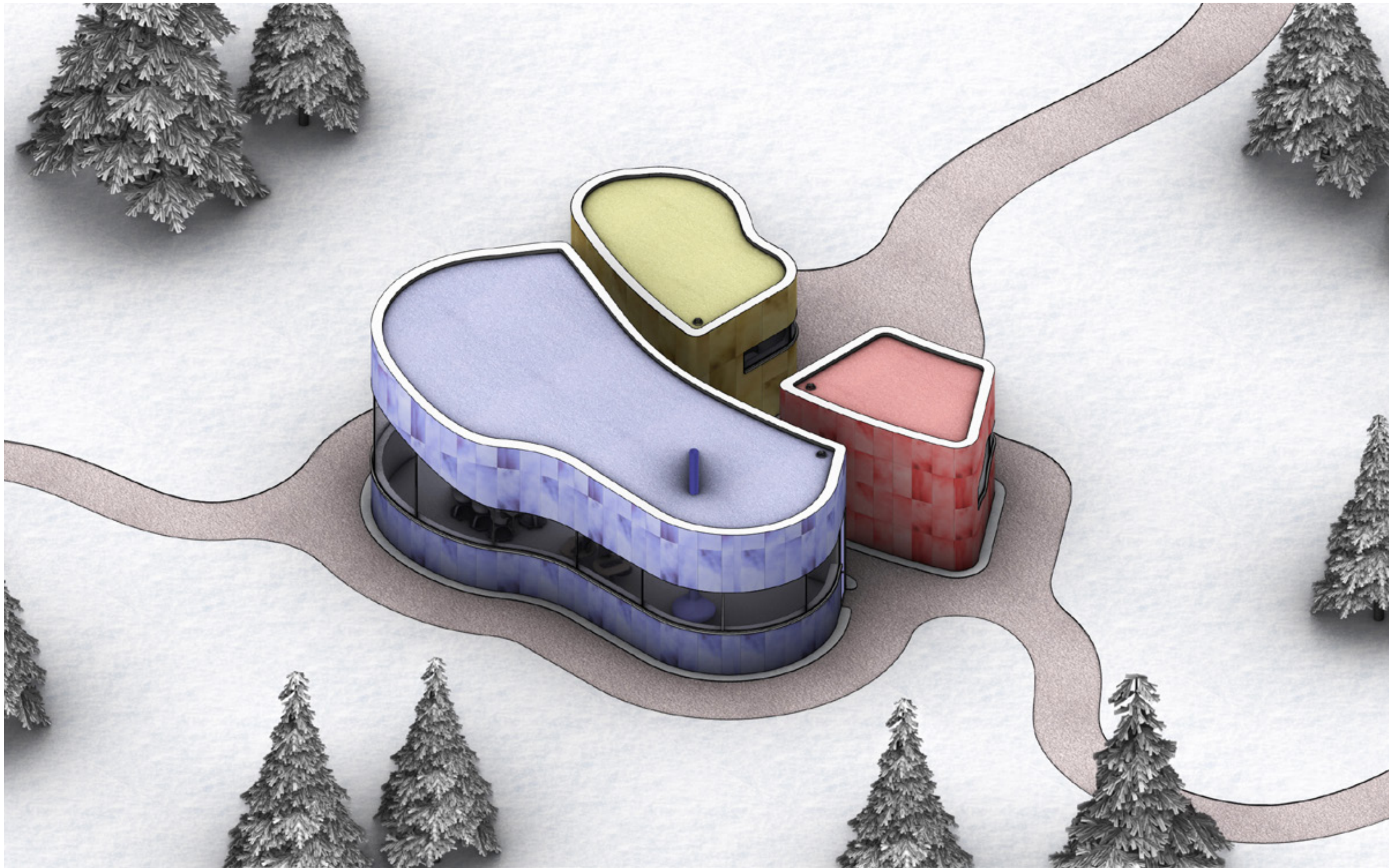


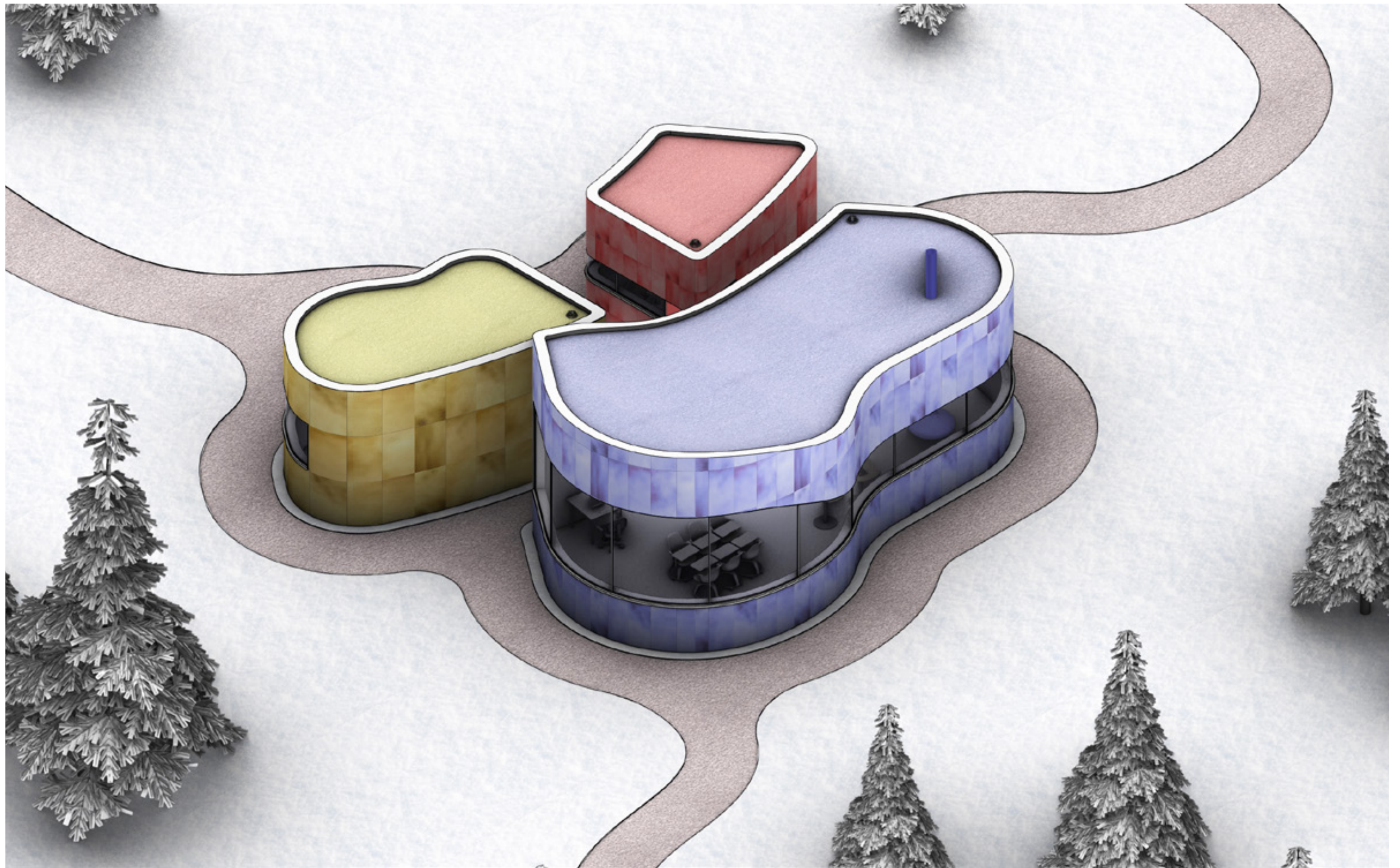
# Site Plan

1.25 2.5 5m

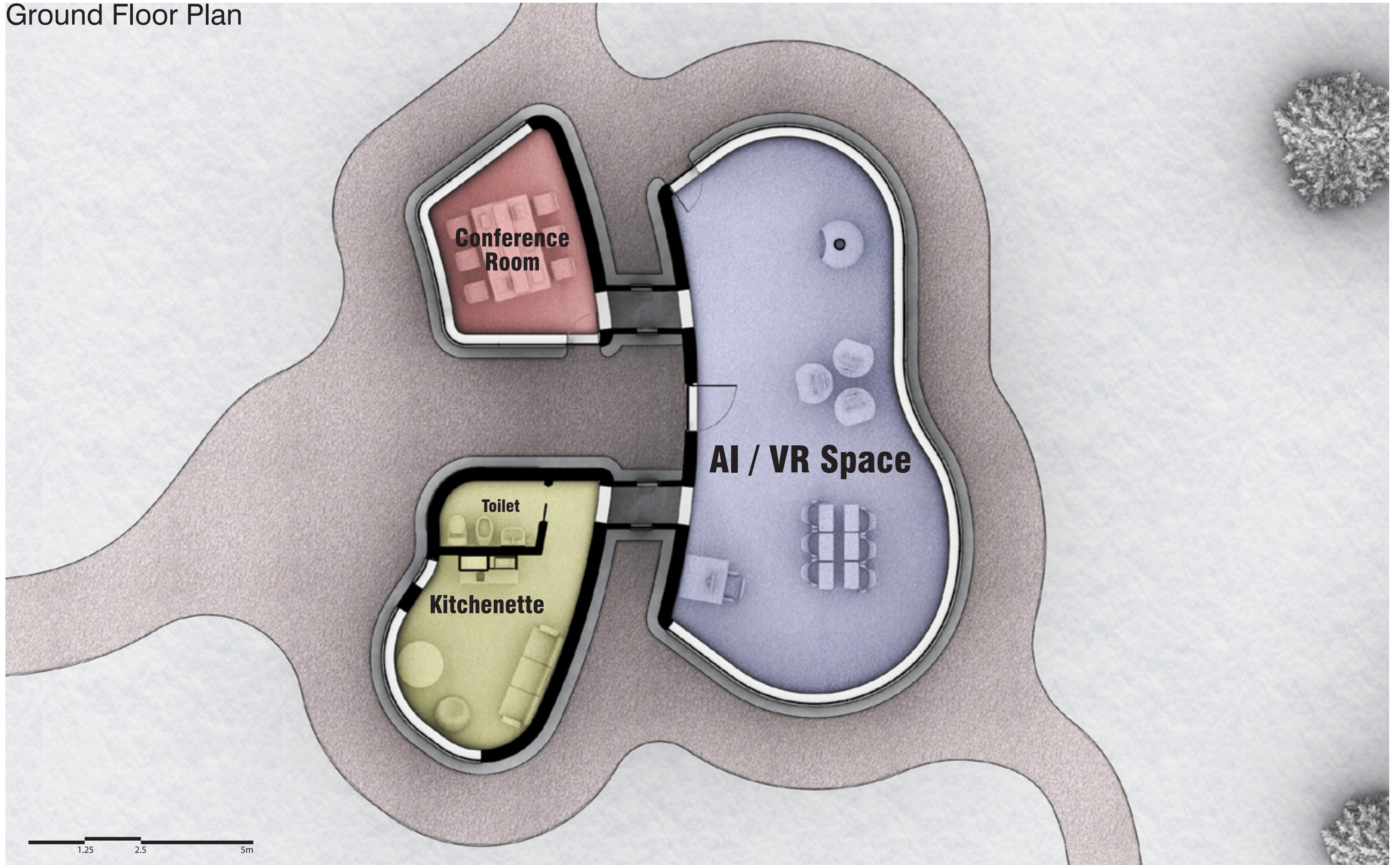






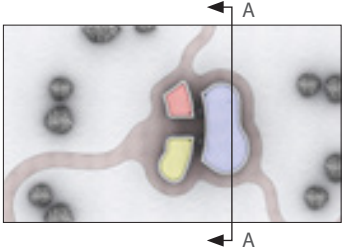


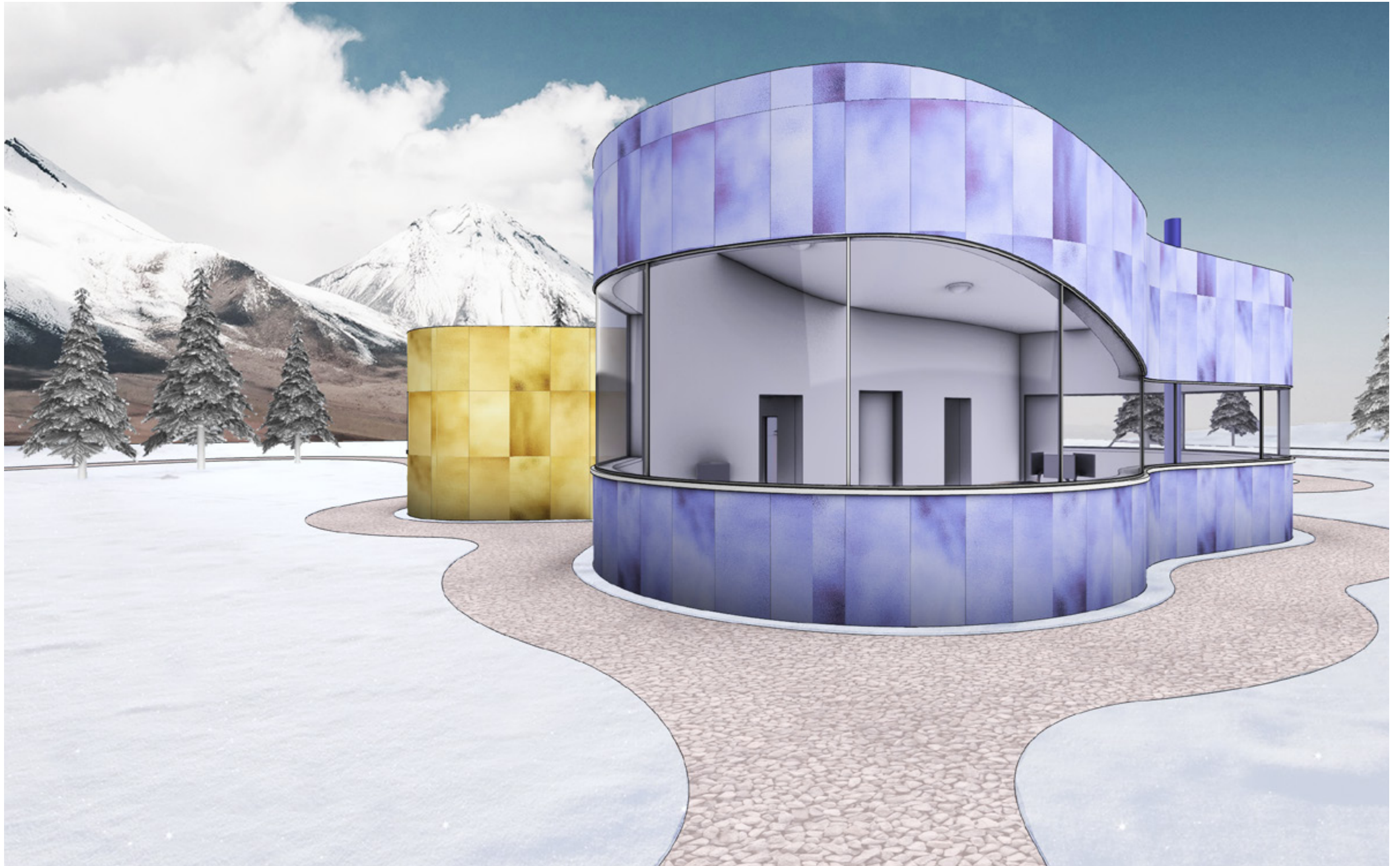
# Ground Floor Plan

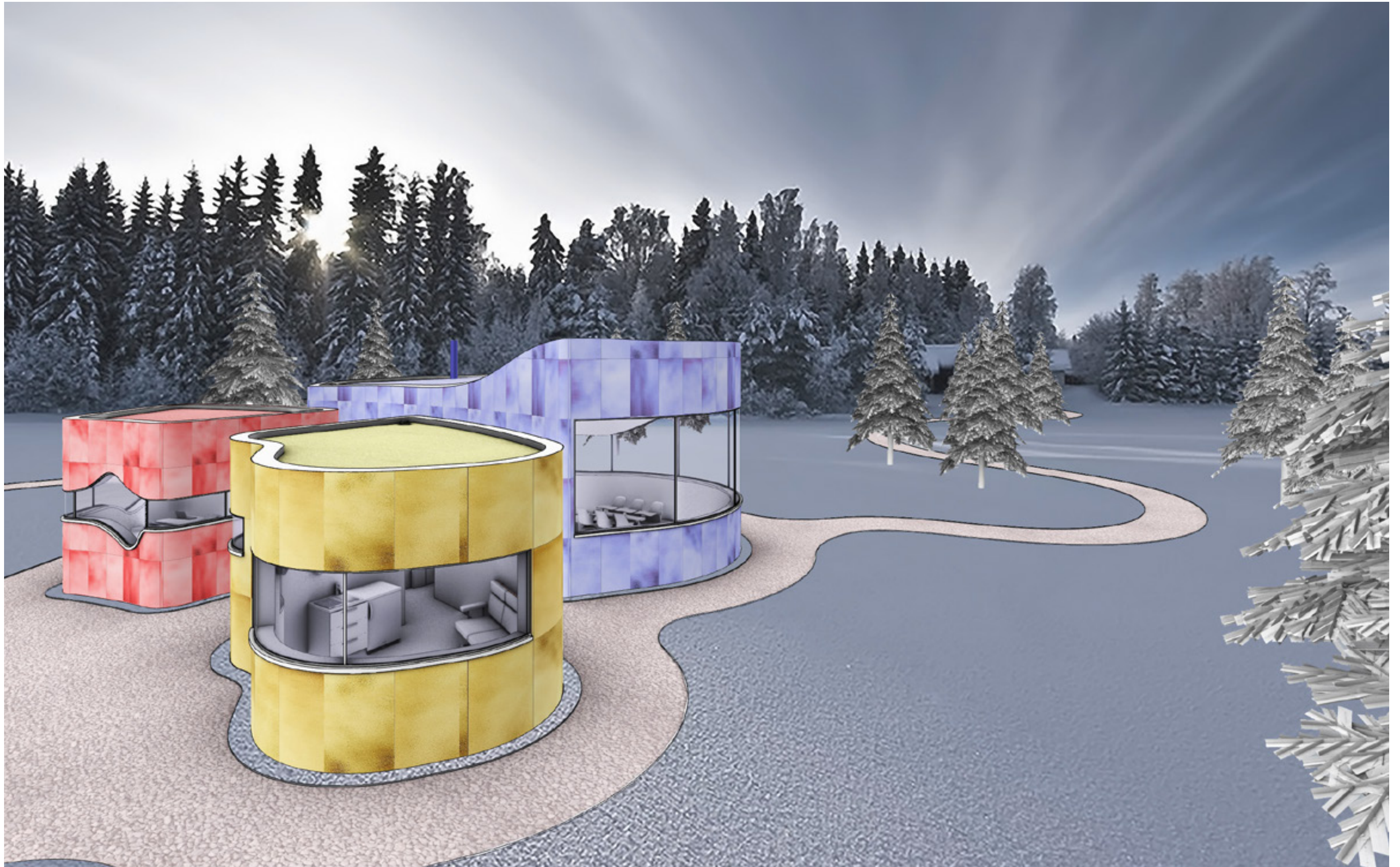


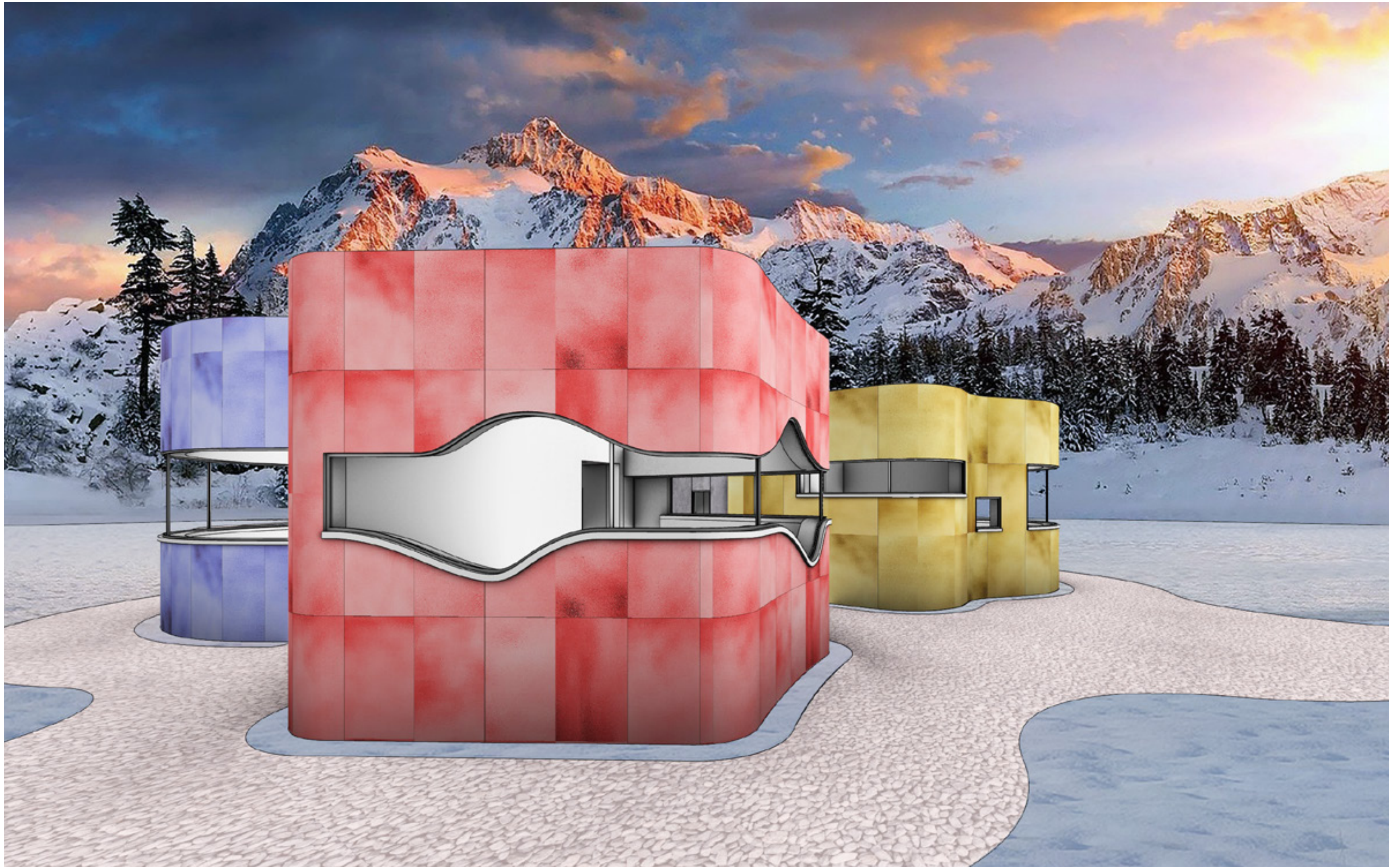


Section AA





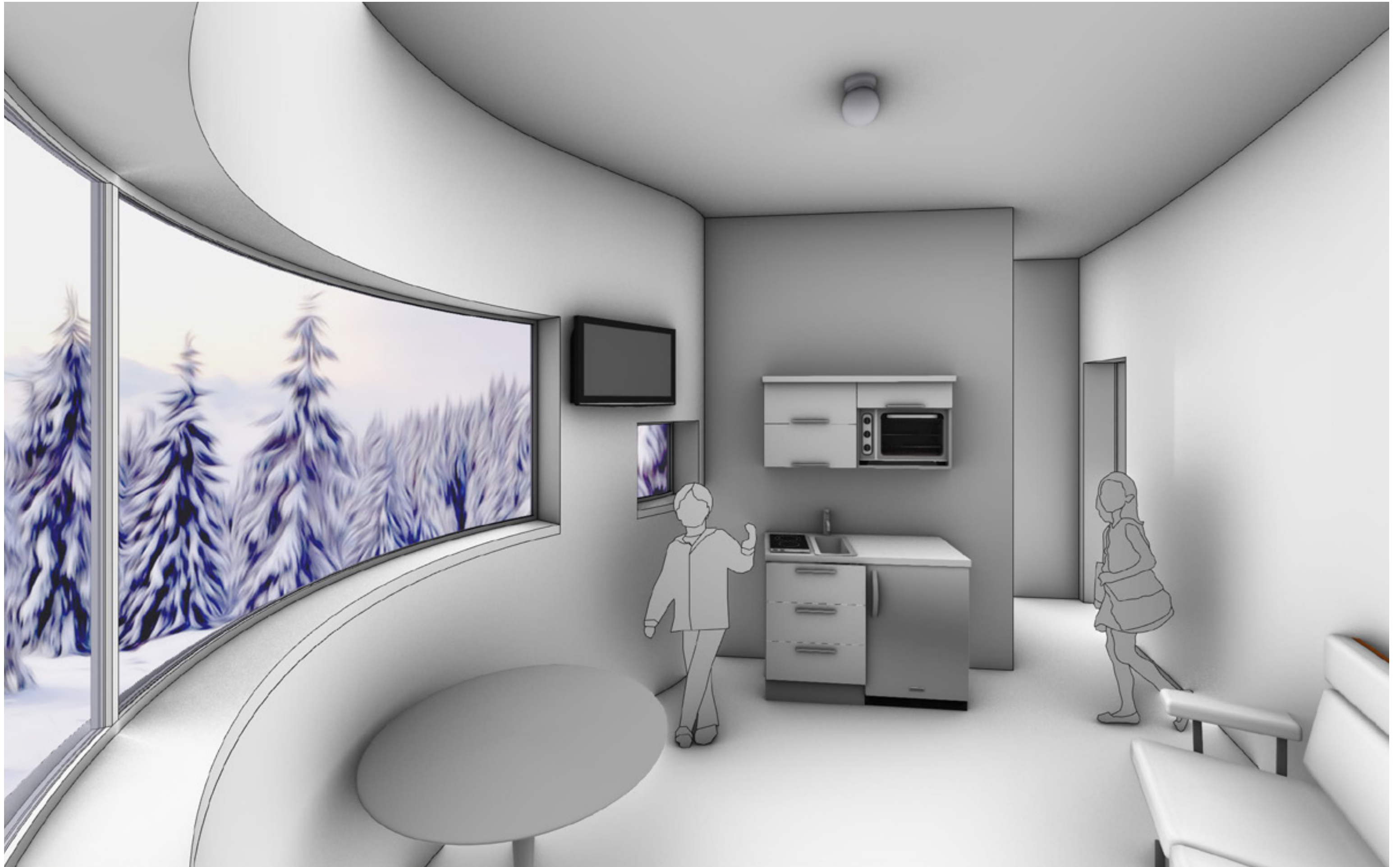






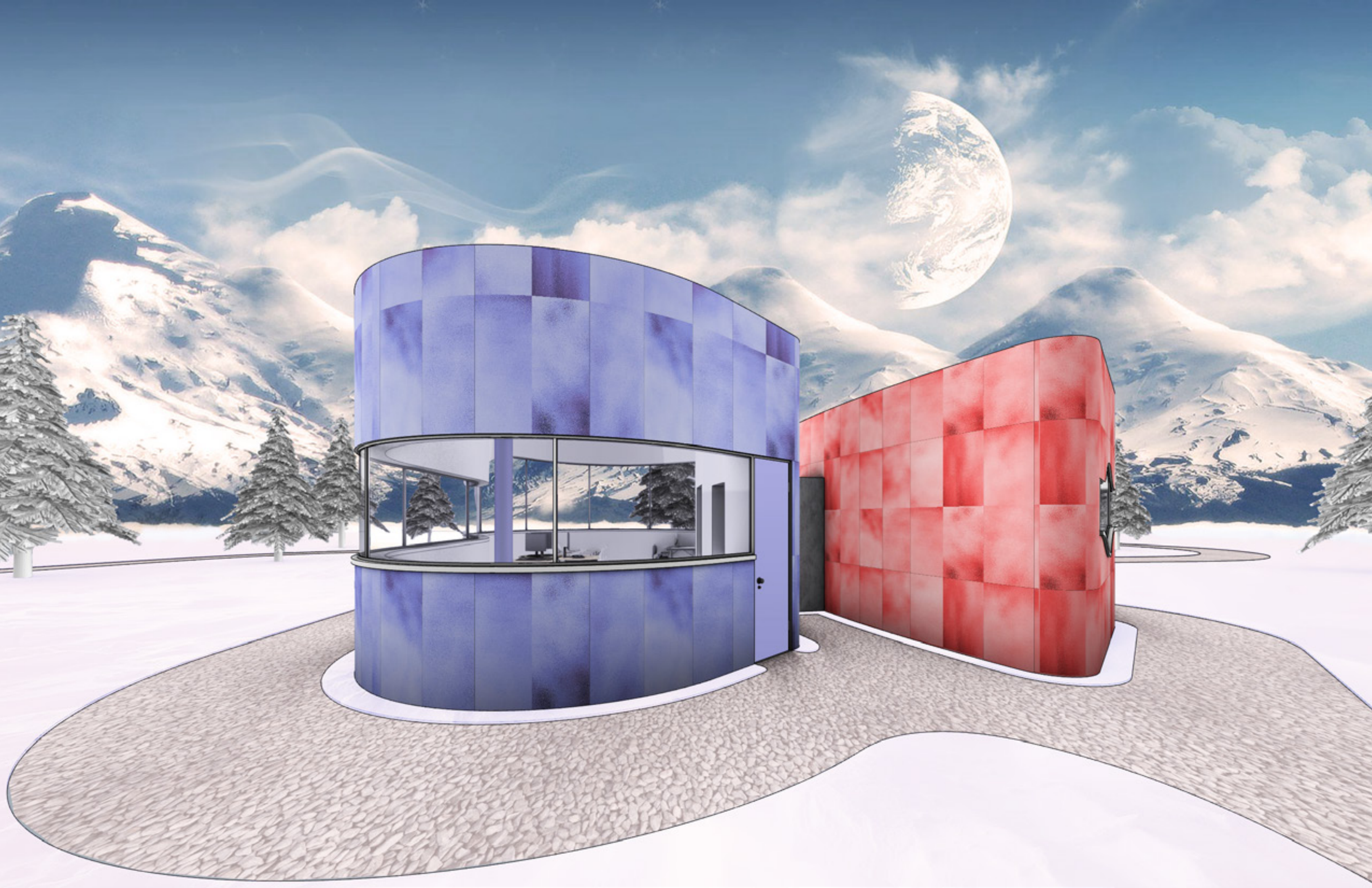












# BYE HOUSE

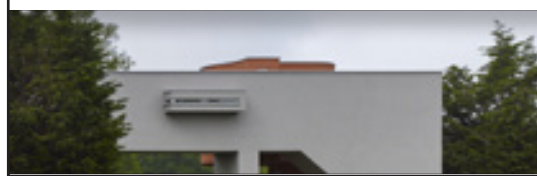
Advanced Design Studio, Spring 2020

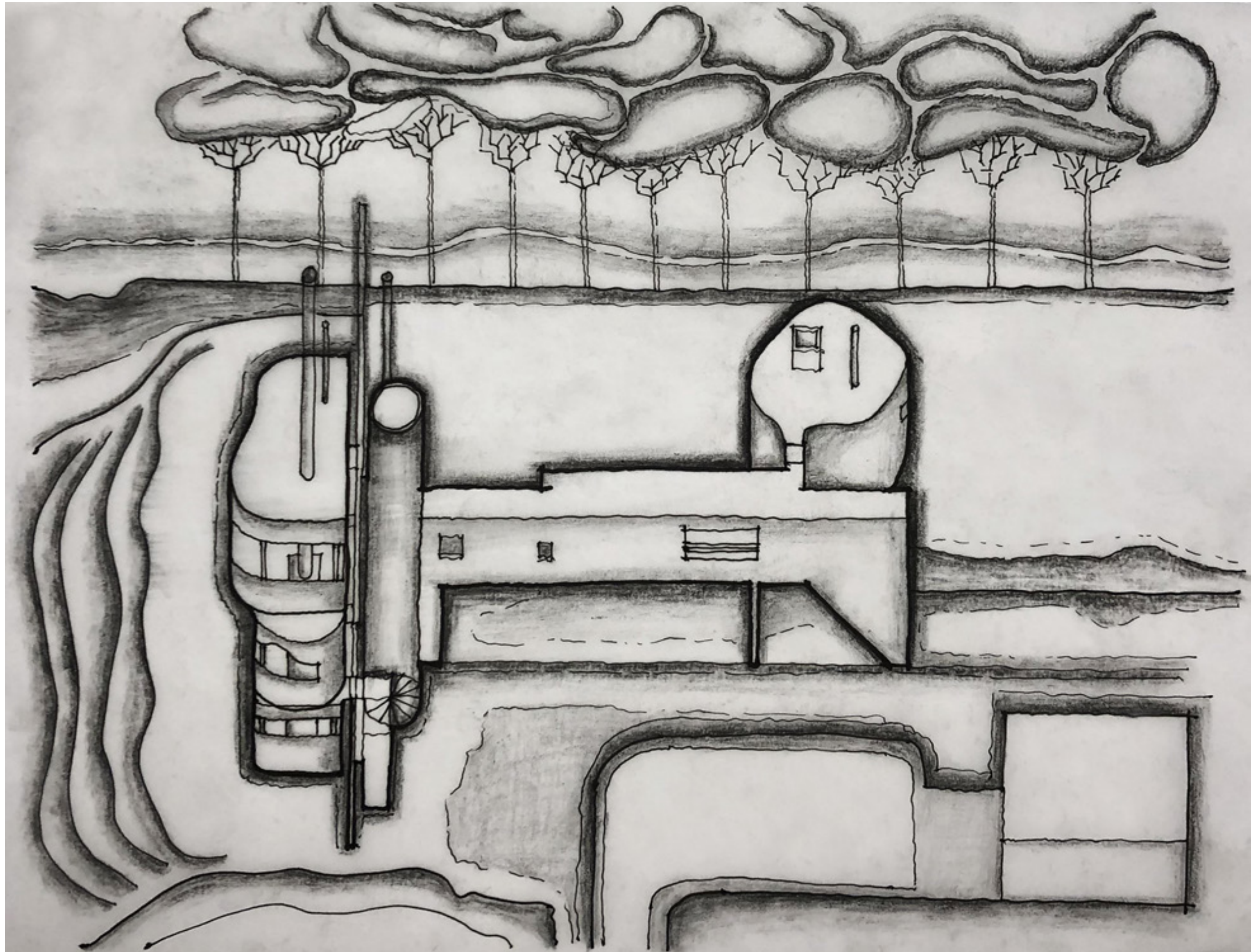
Location: Groningen, The Netherlands

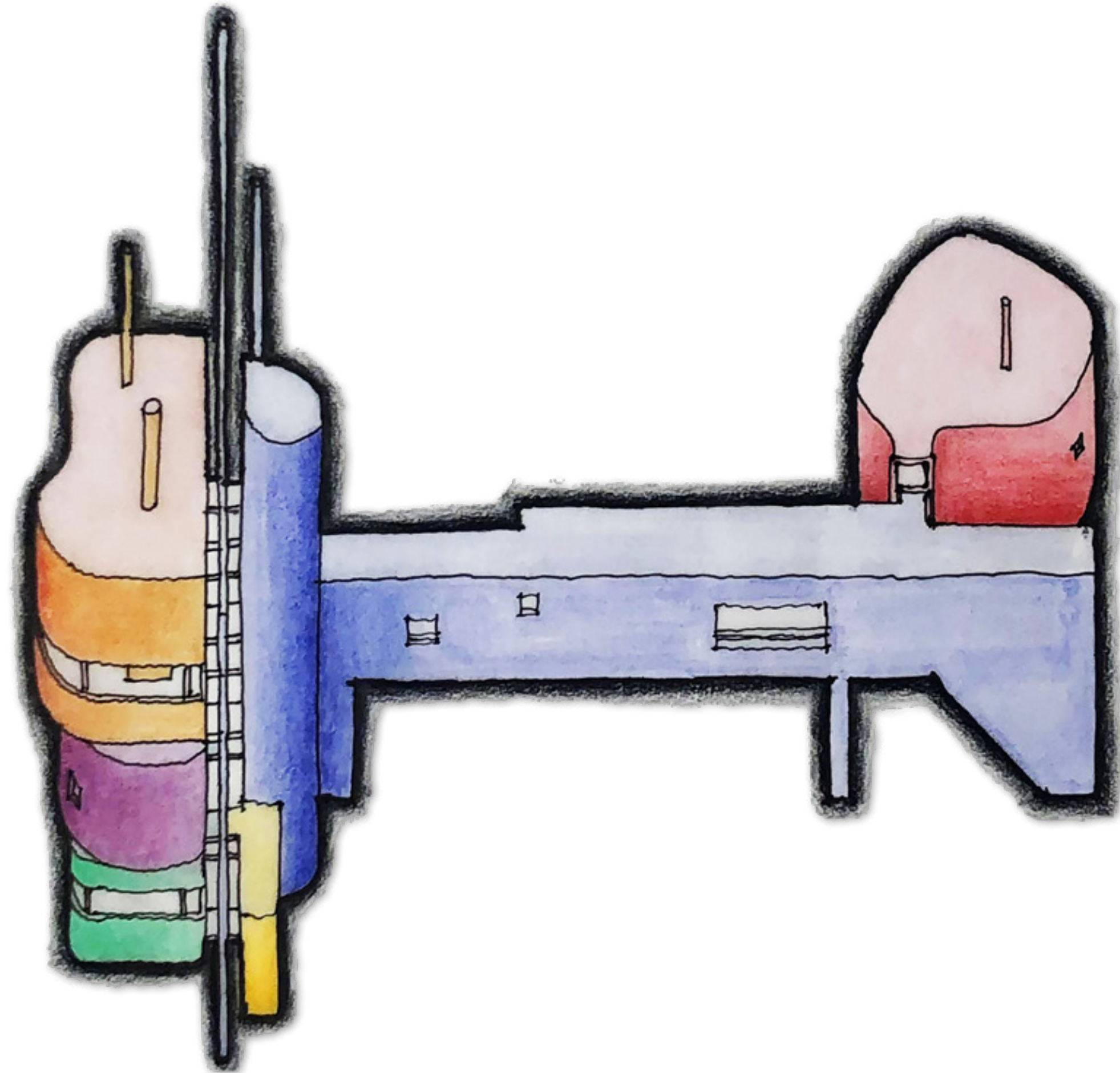
Professor: Michael Bell

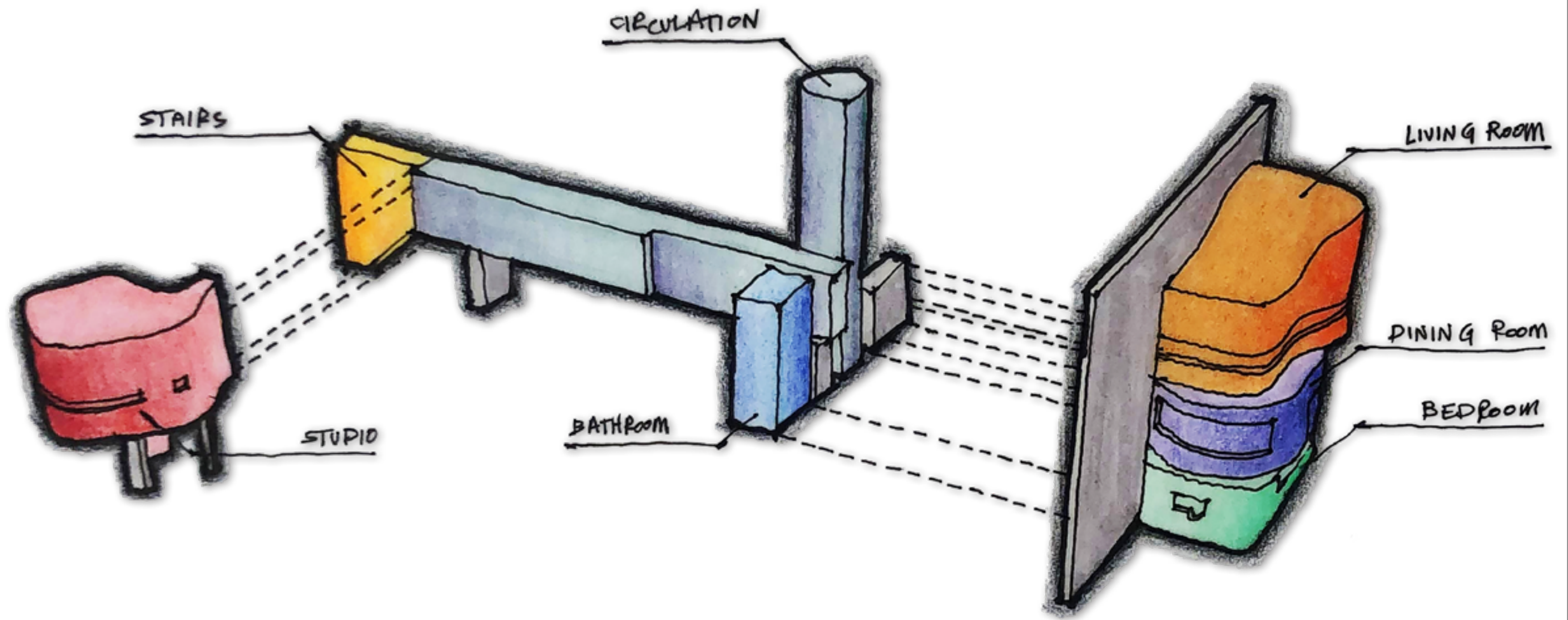
The architecture of the teacher-less micro school draws inspiration from a Renaissance painting technique called Sfumato used for softening the transition of colors or the edge between plastic forms and space. Further, the sfumato is a feature in 3 dimensional objects (form) and the space, differing from the chiaroscuro which is utilized for the contrasts of light to achieve a sense of volume as it communicates the rounding of a plastic form. Nonetheless, both techniques of sfumato and chiaroscuro were used in the design process. In this case, the sfumato creates depth as it amalgamates the outside colors and materials bringing the three forms unique luminescence. Likewise, the inside spatial experience is blurred introducing another layer of elasticity, plasticity, presence and viscosity as a result. The form of the school itself, borne out of a scrupulous process of transcribing John Hejduk's Bye House (1972), increases the level of complexity to the architecture as the topological analysis of the "flattened" cubic Bye House eventually led to the optical bending and re-curving of the spatial and volumetric qualities of the project.

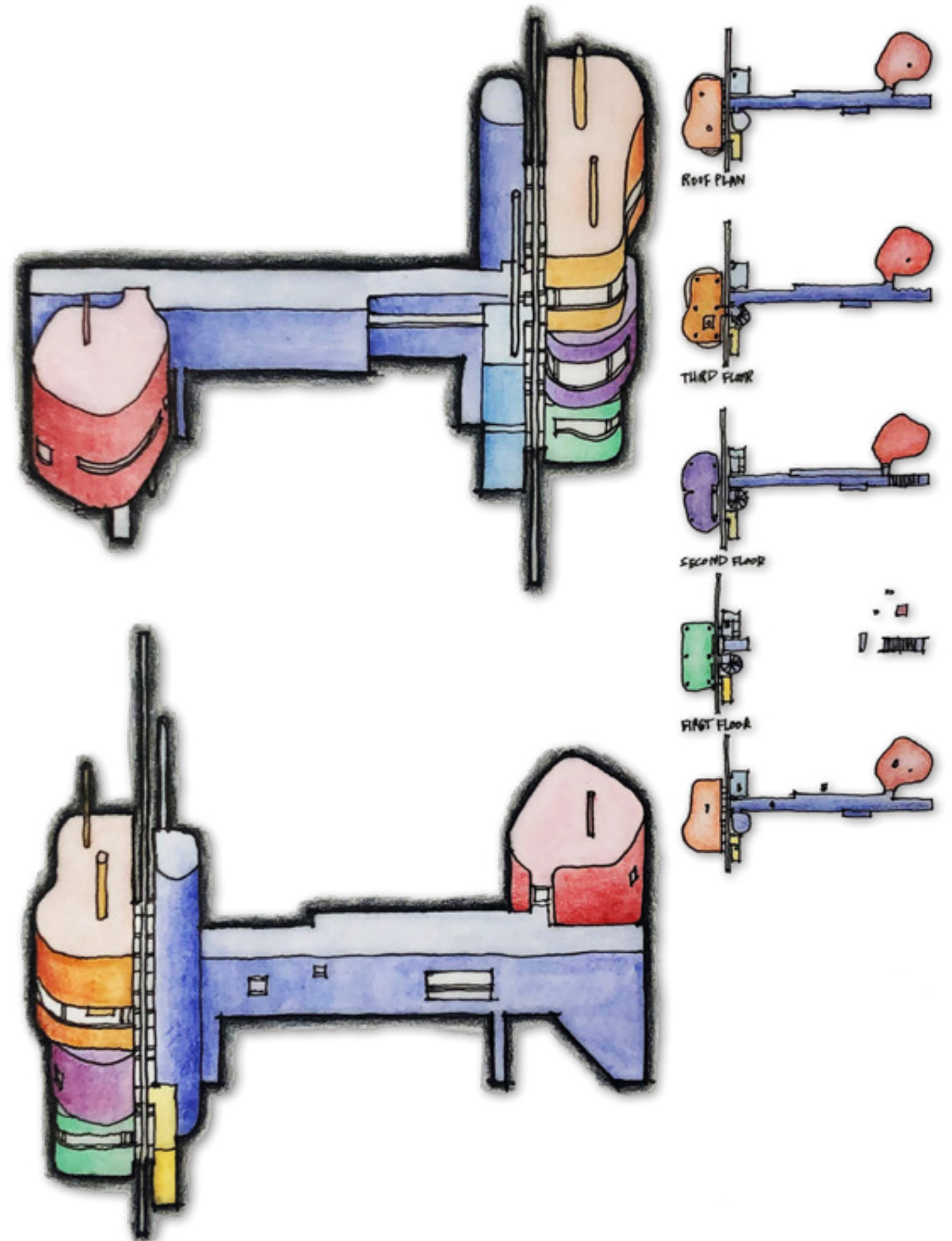
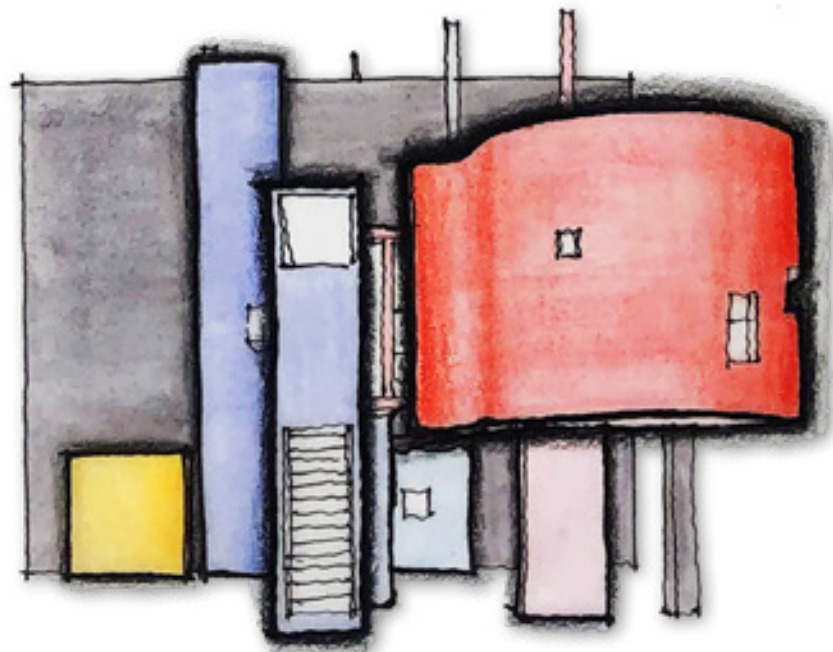
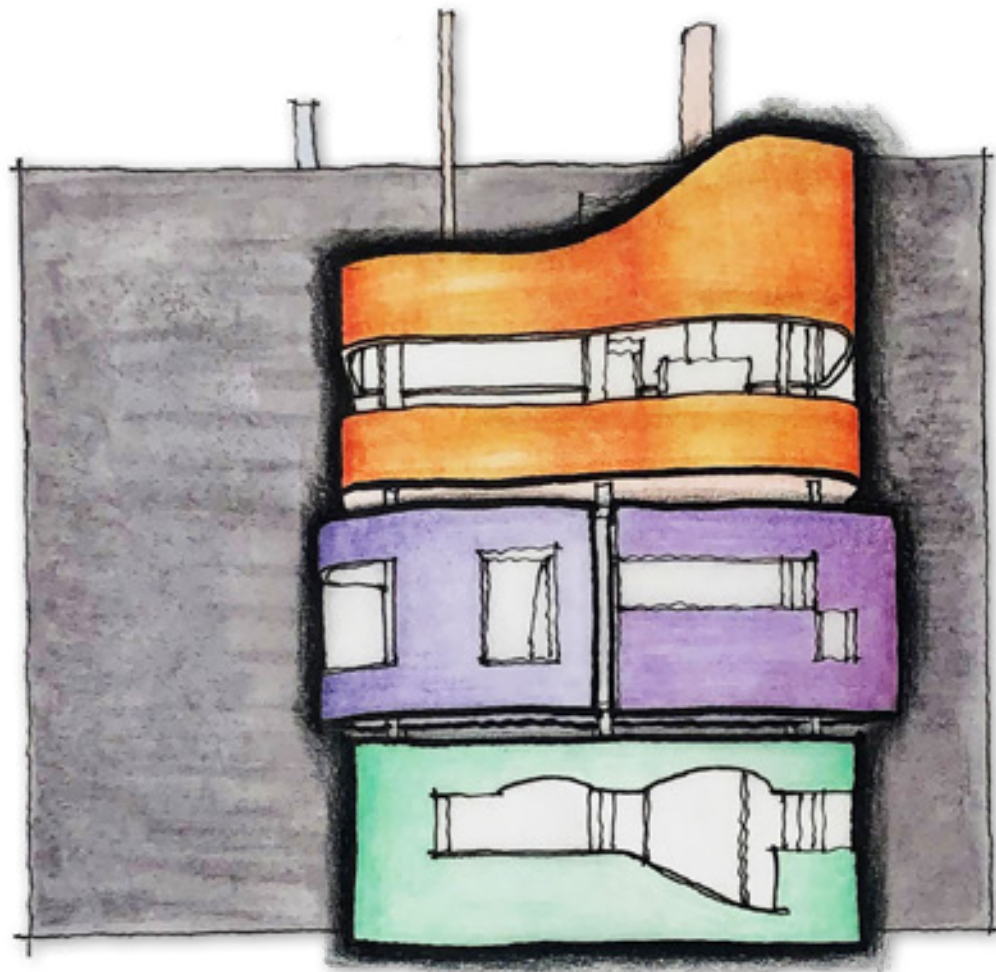
## TRANSCRIPTION OF WALL HOUSE 2

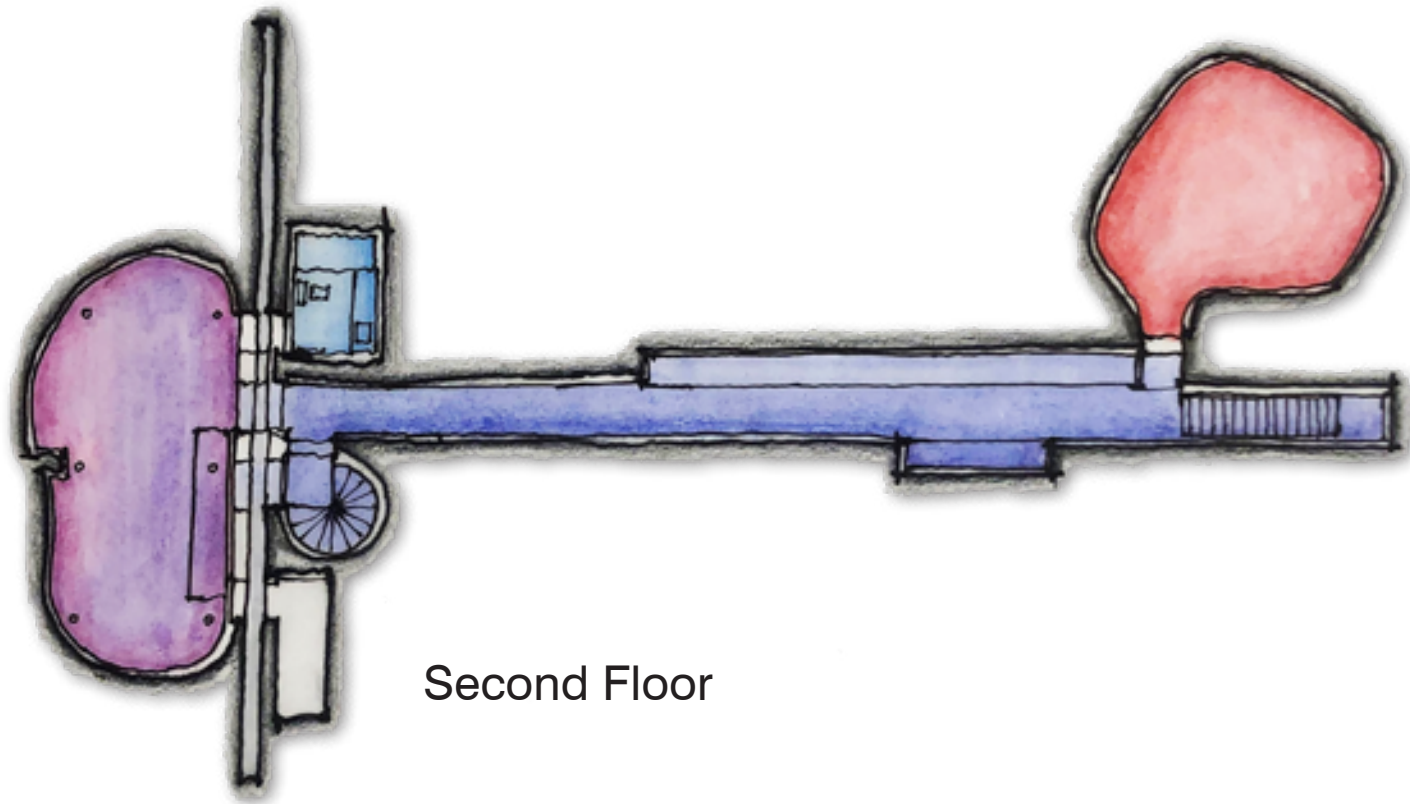




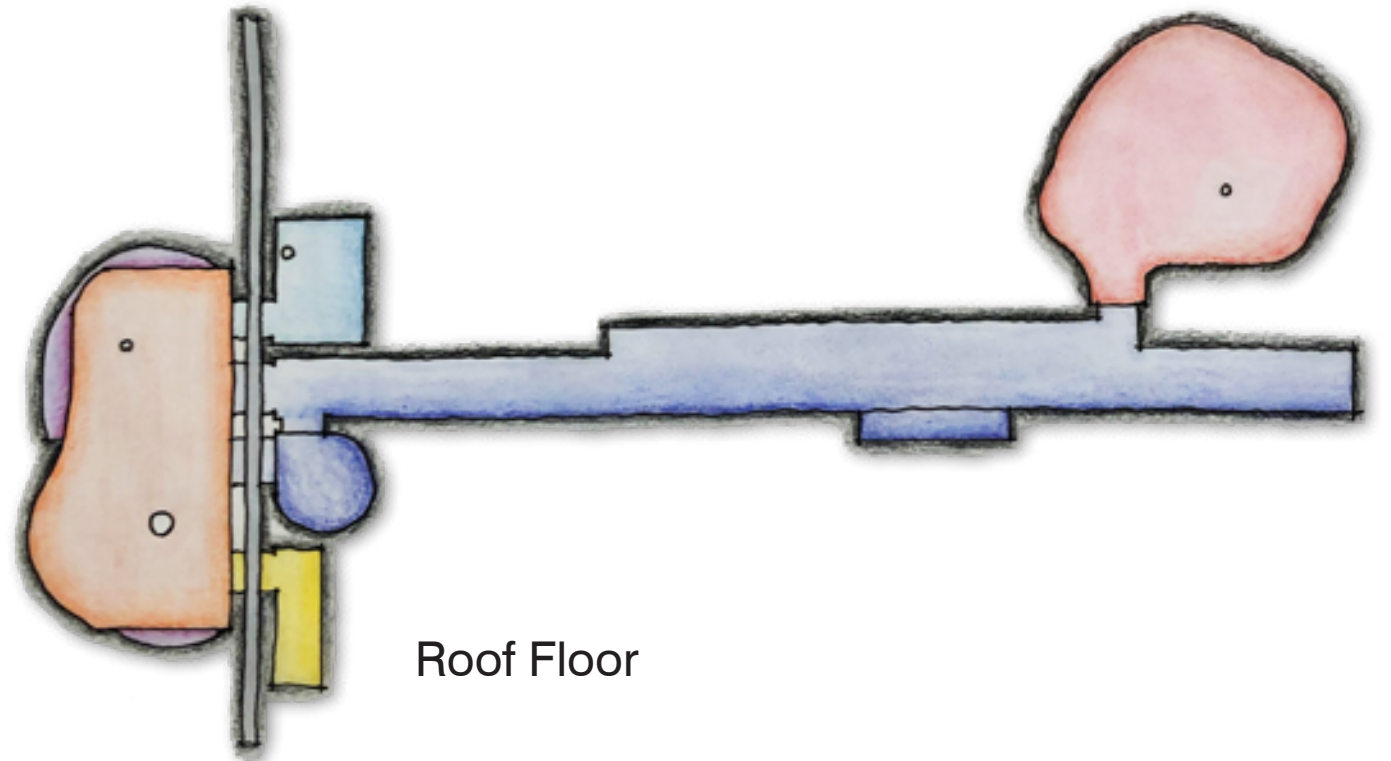




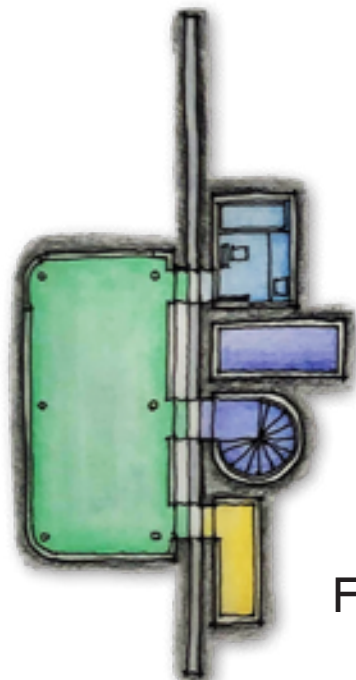




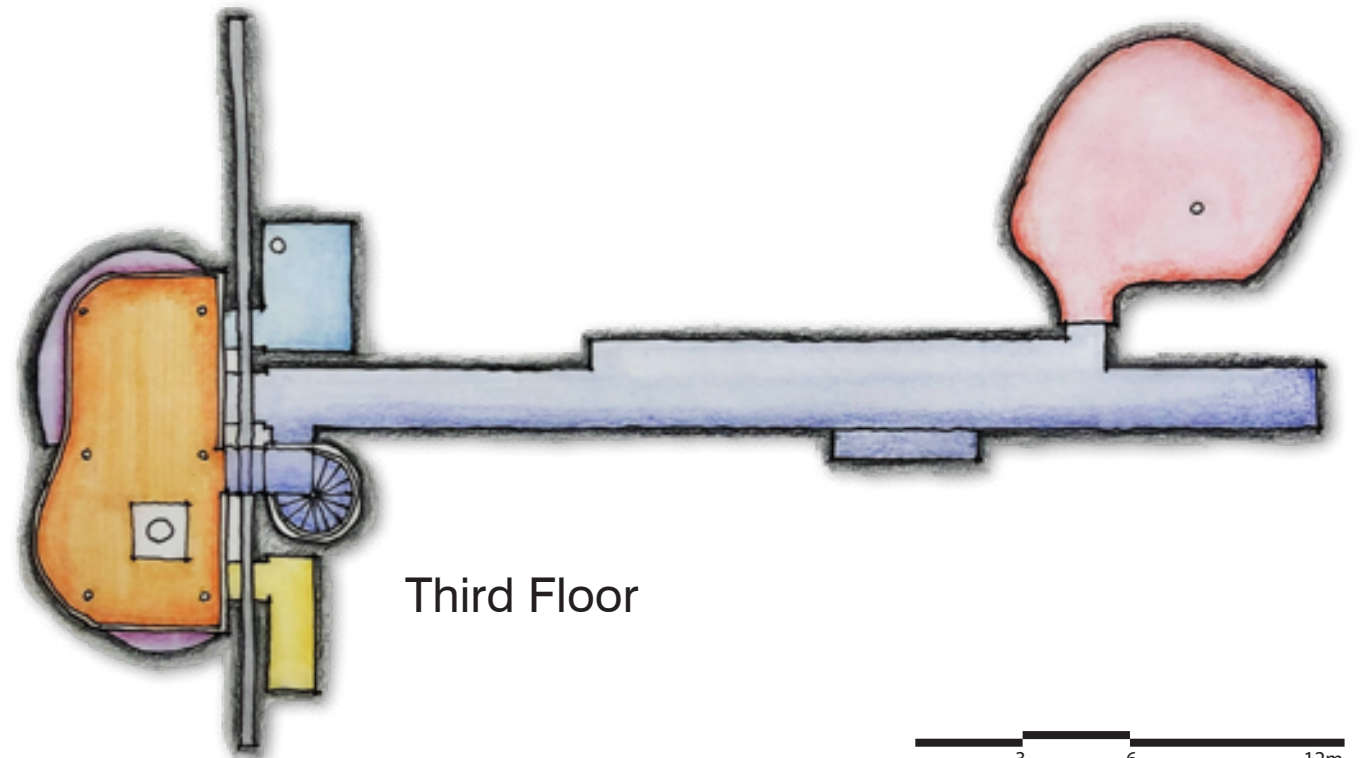
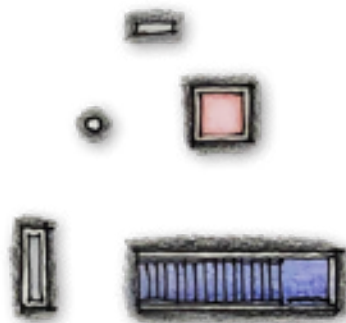
Second Floor



Roof Floor



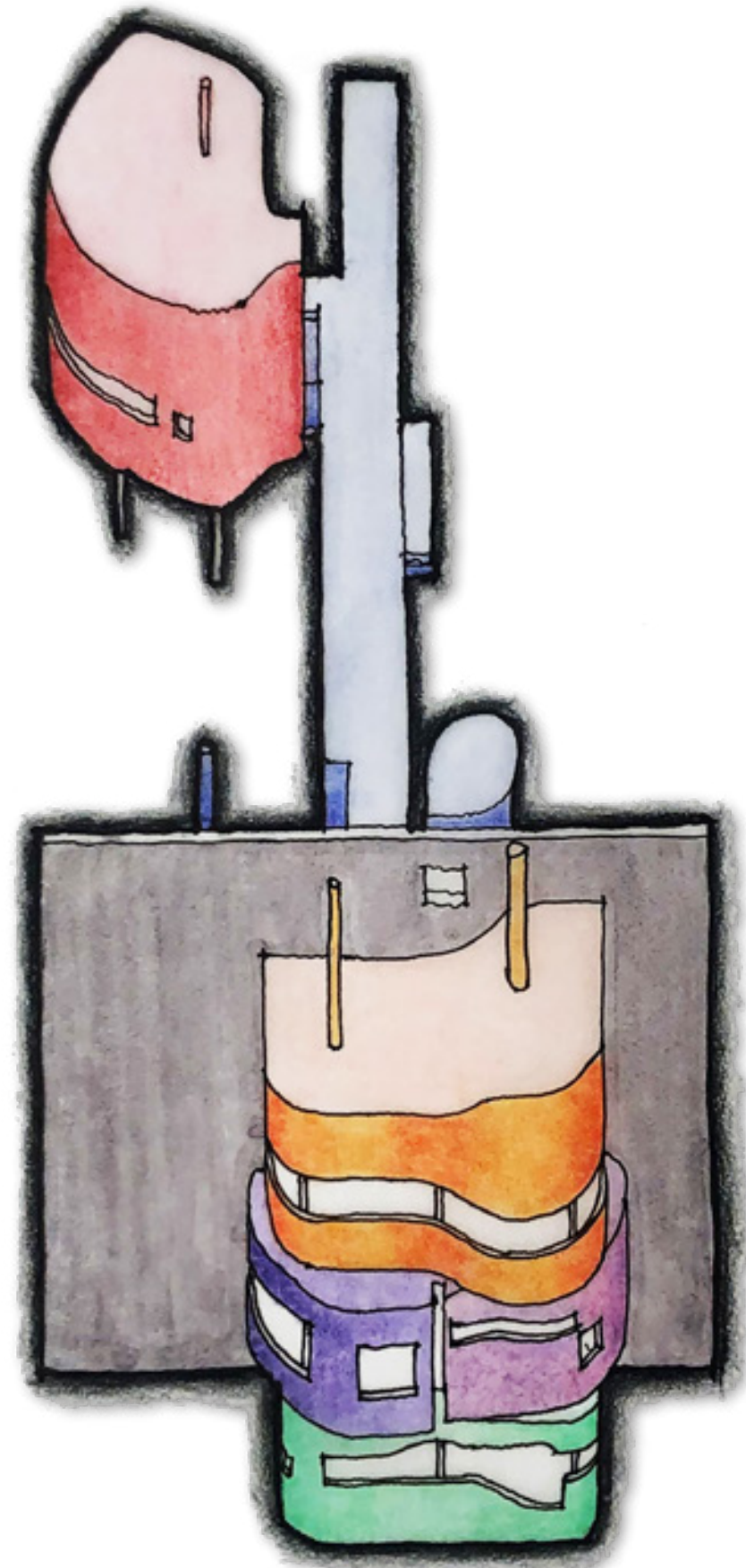
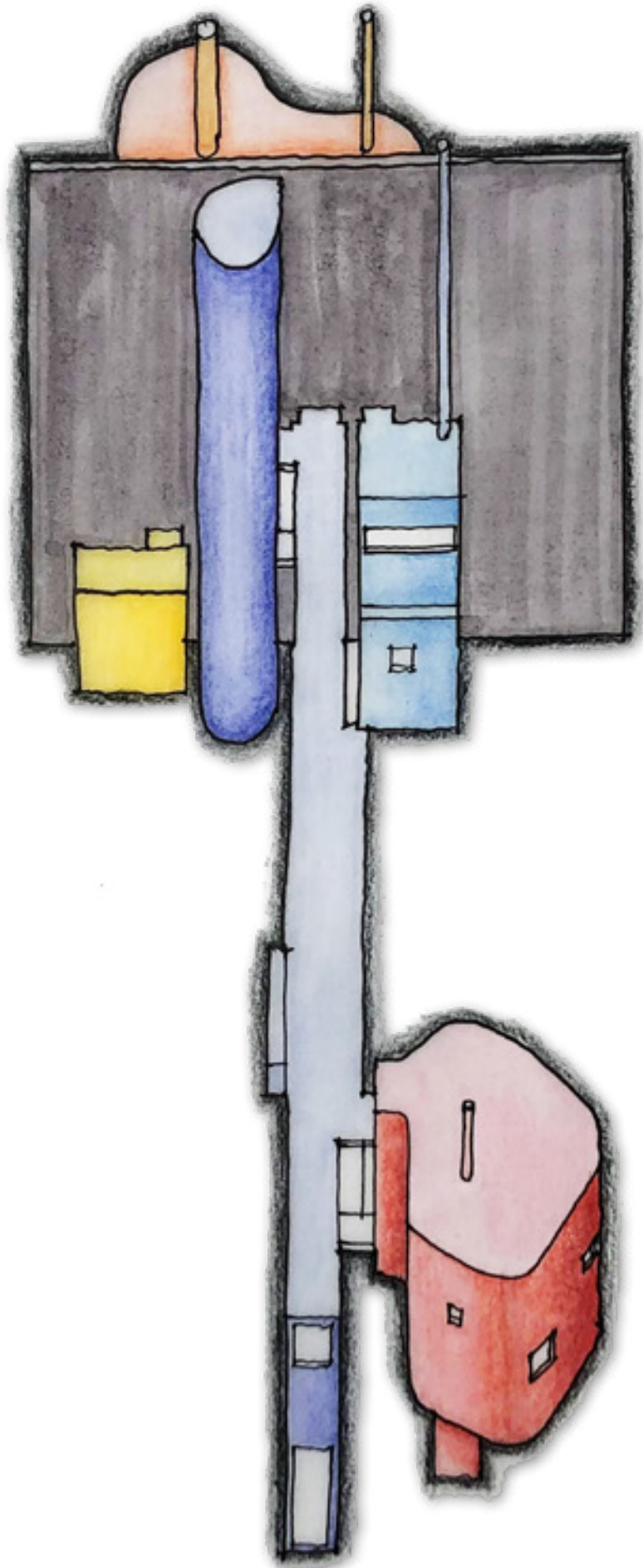
First Floor

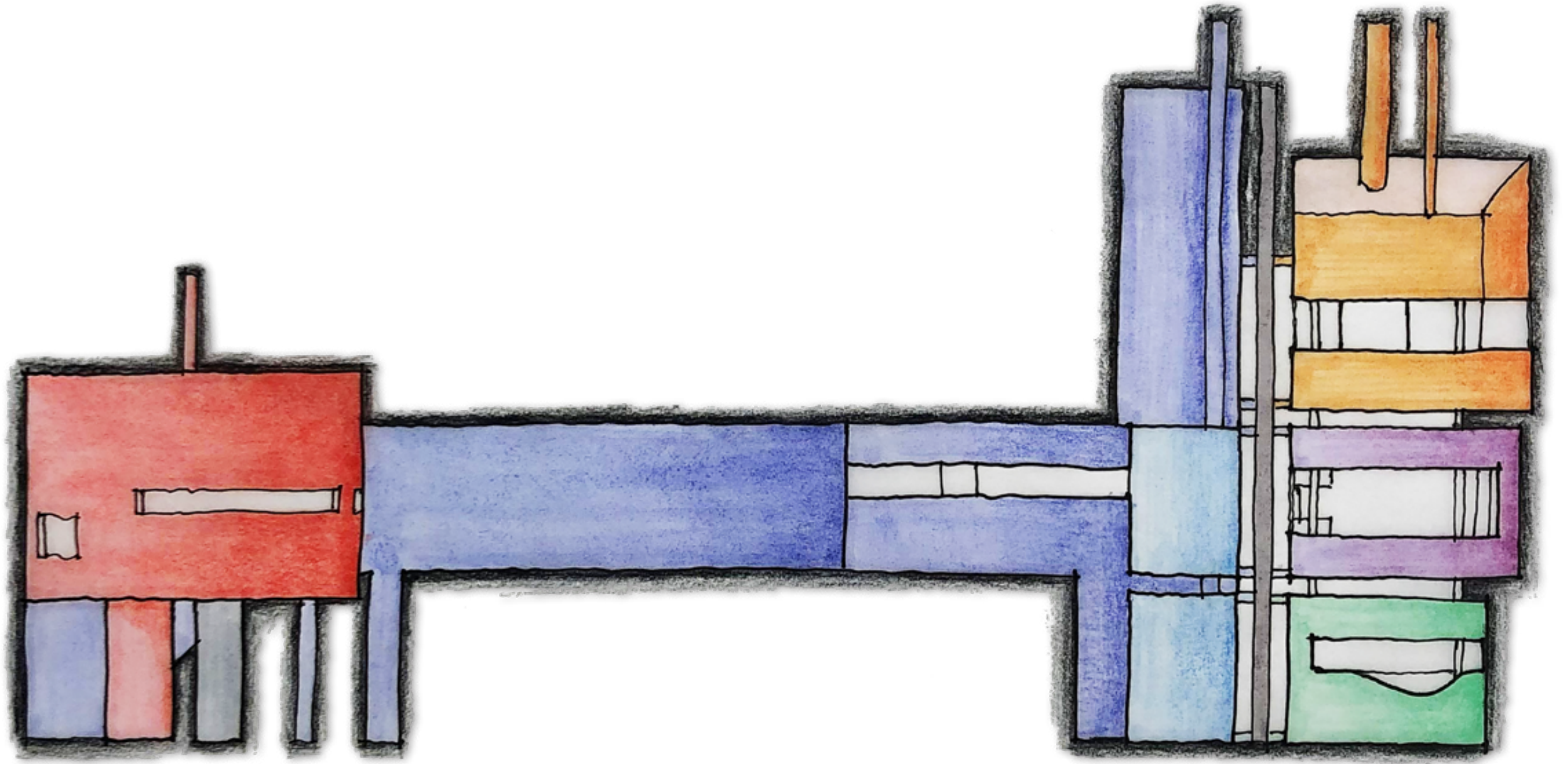


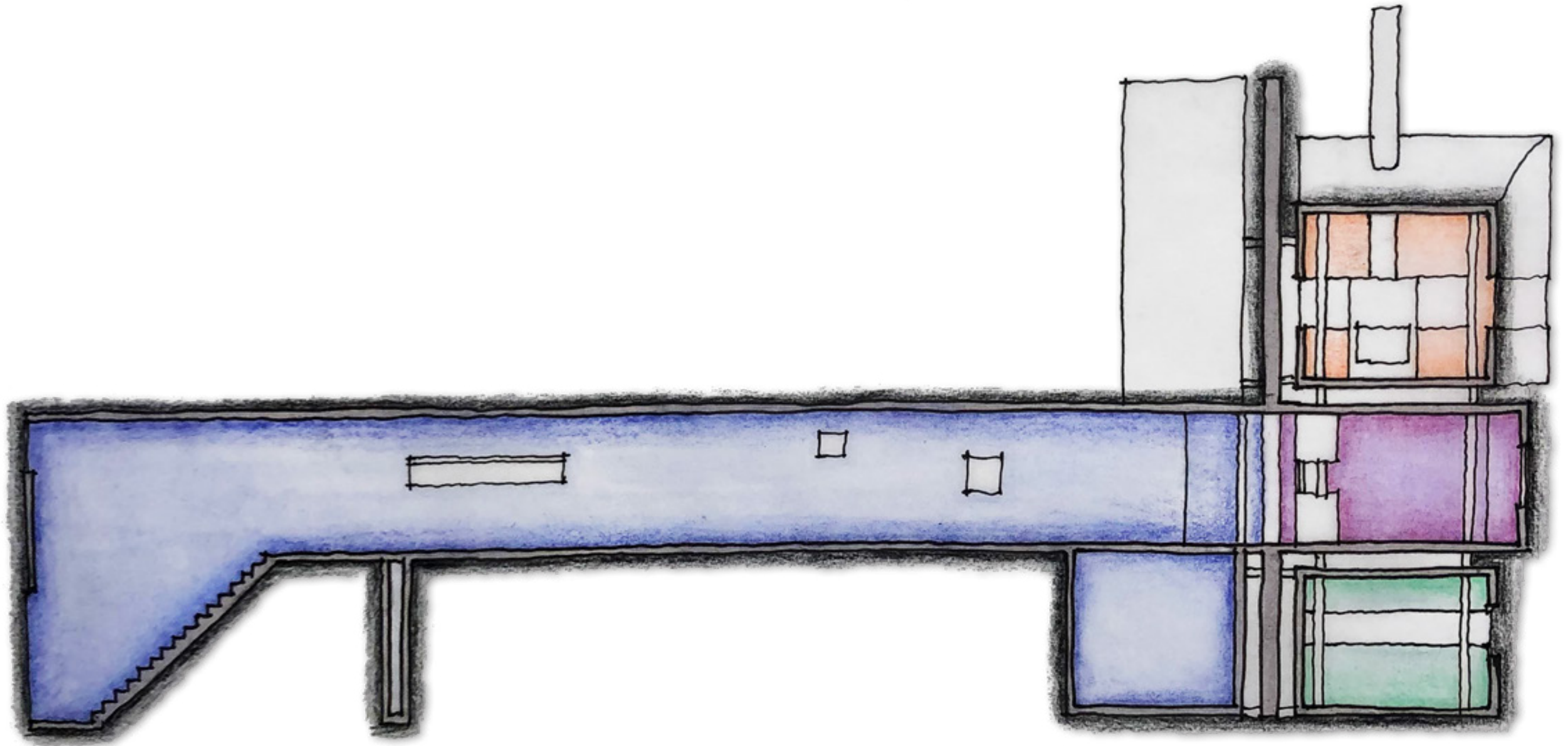
Third Floor

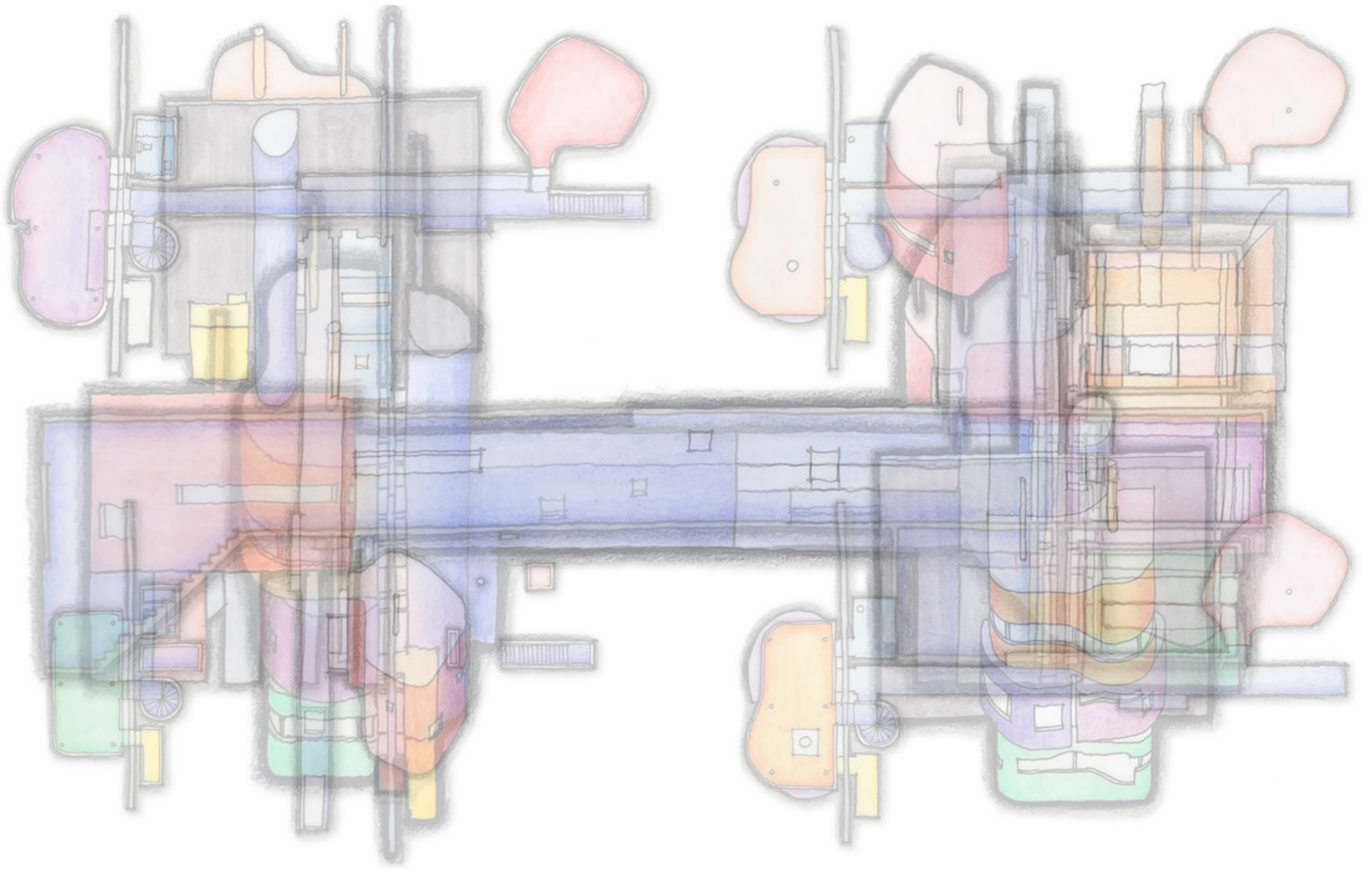


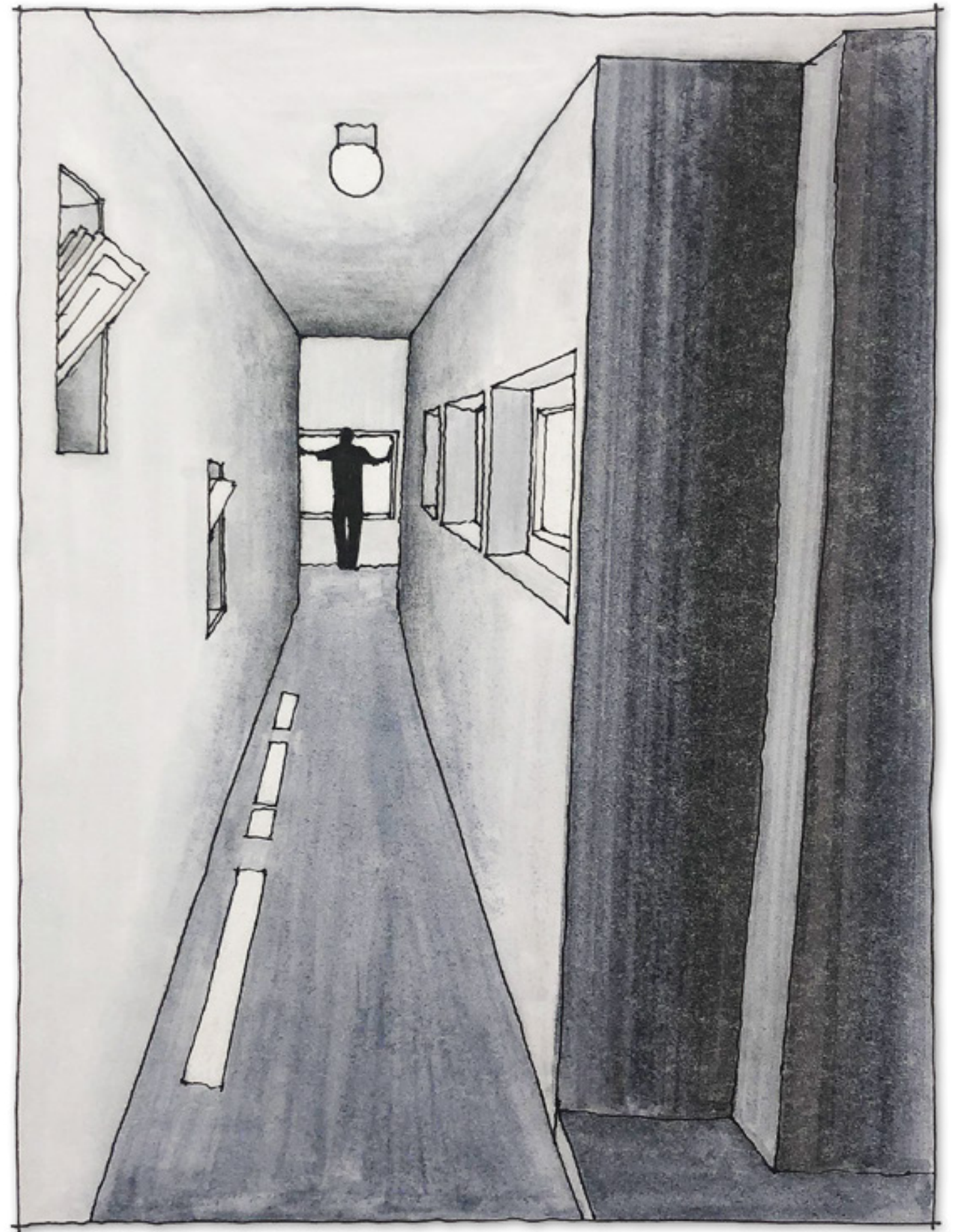
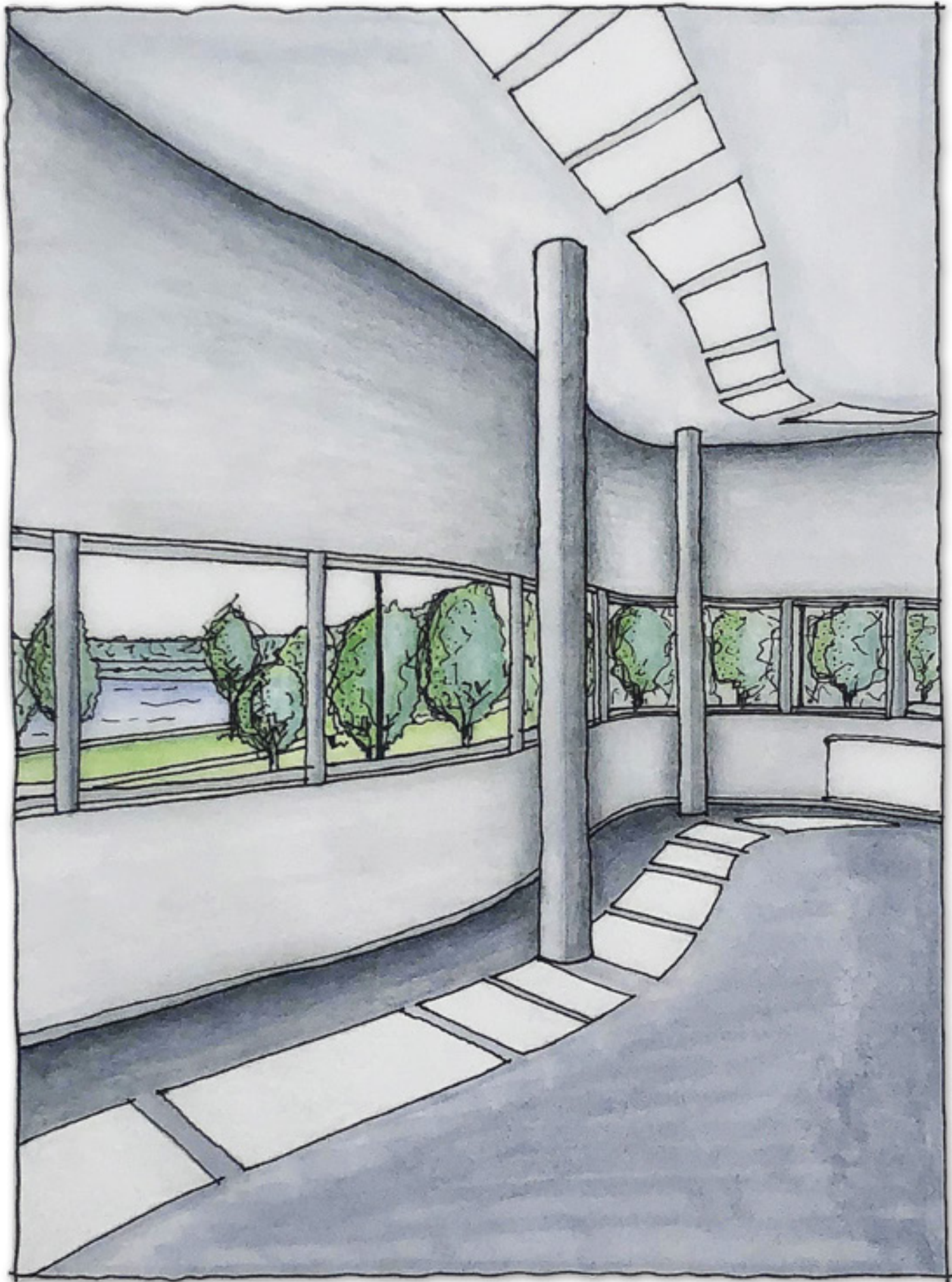


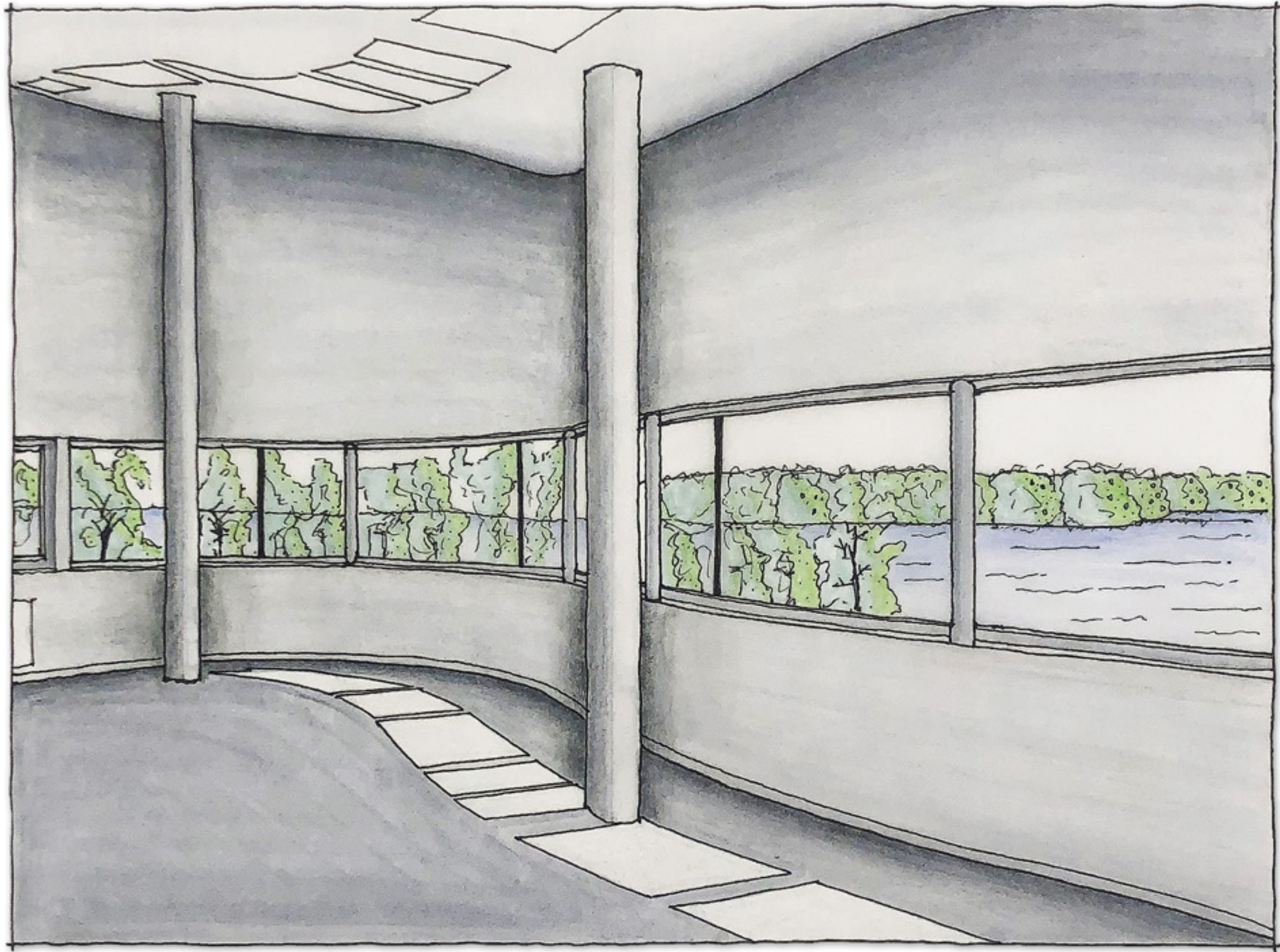


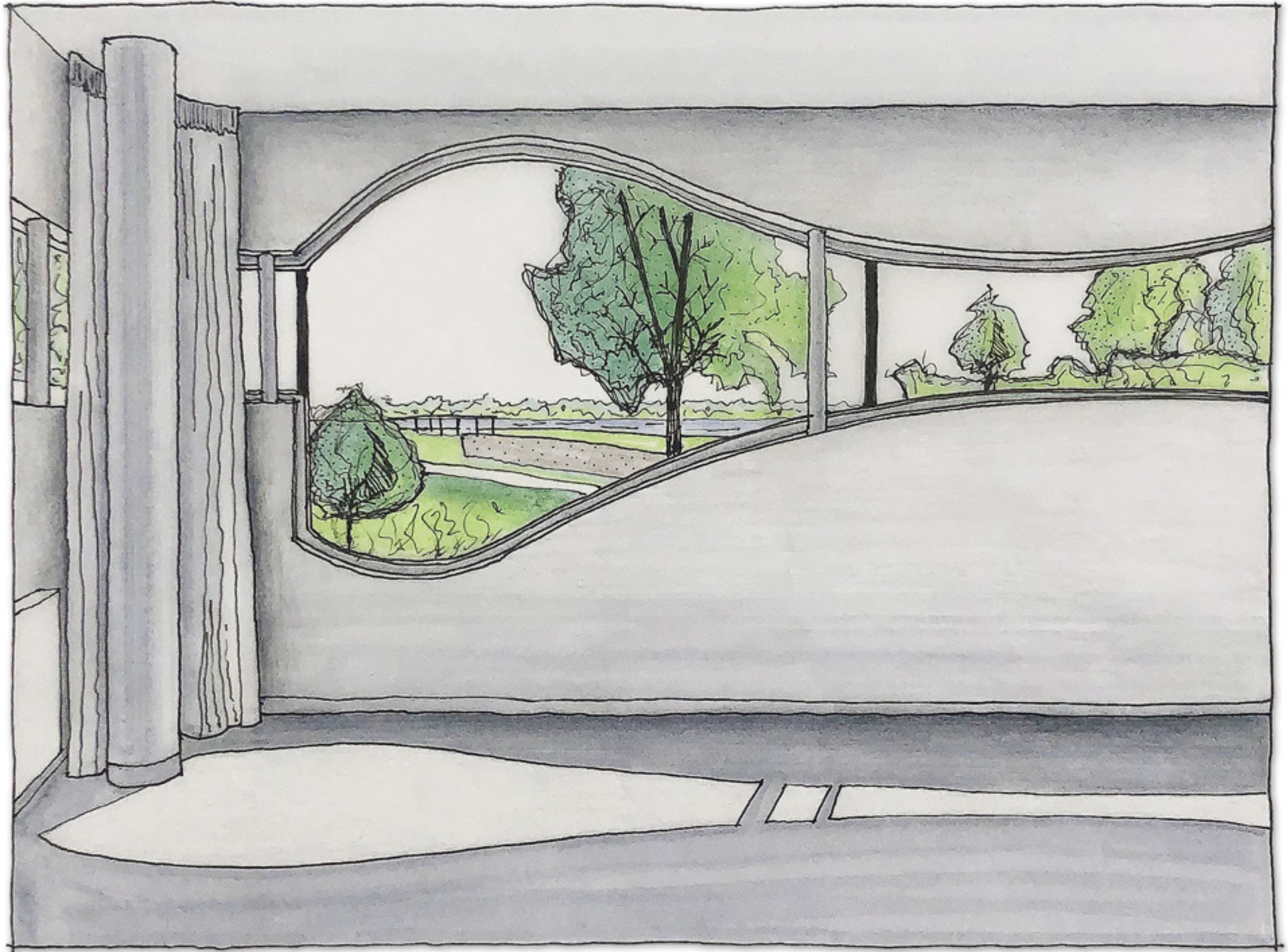


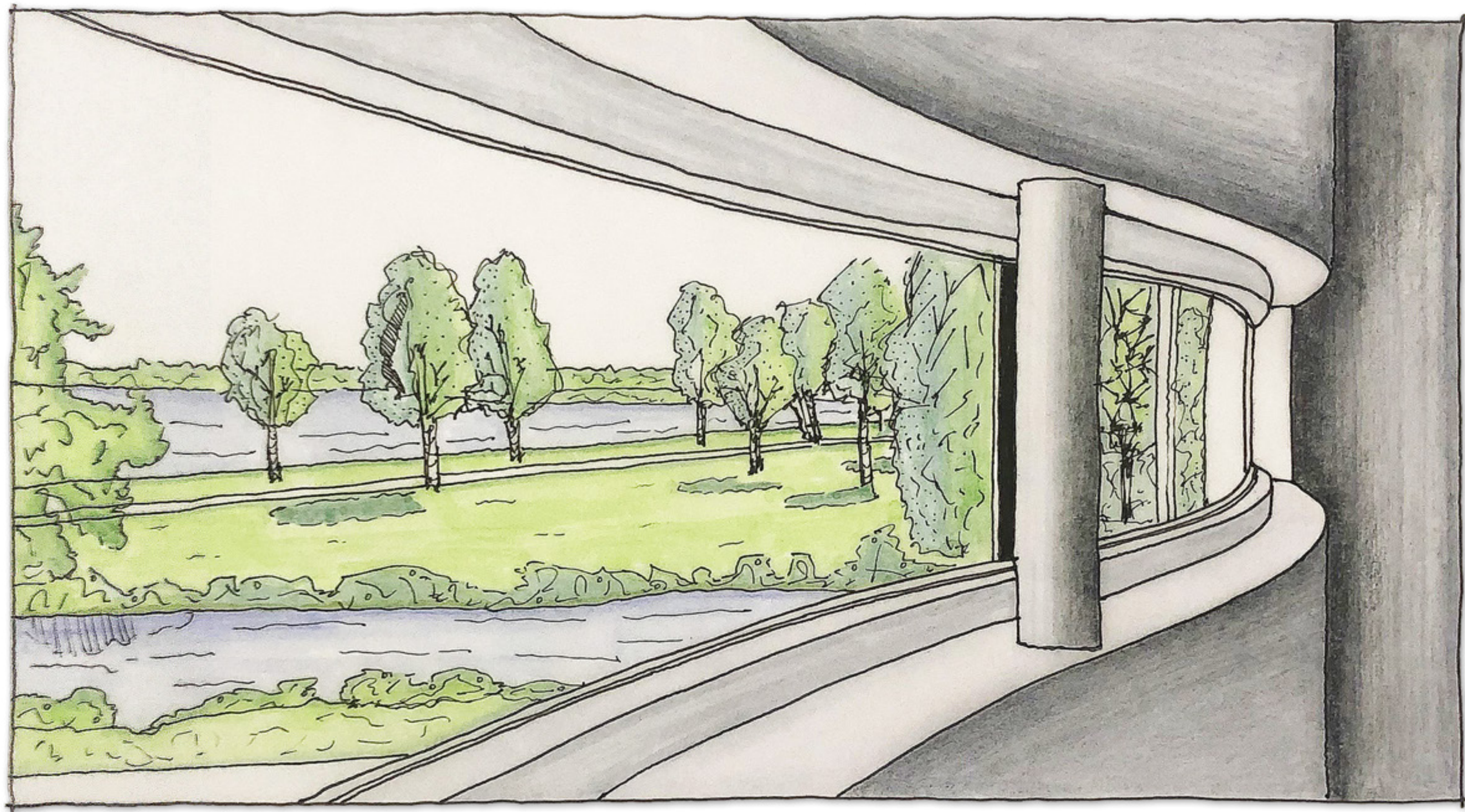




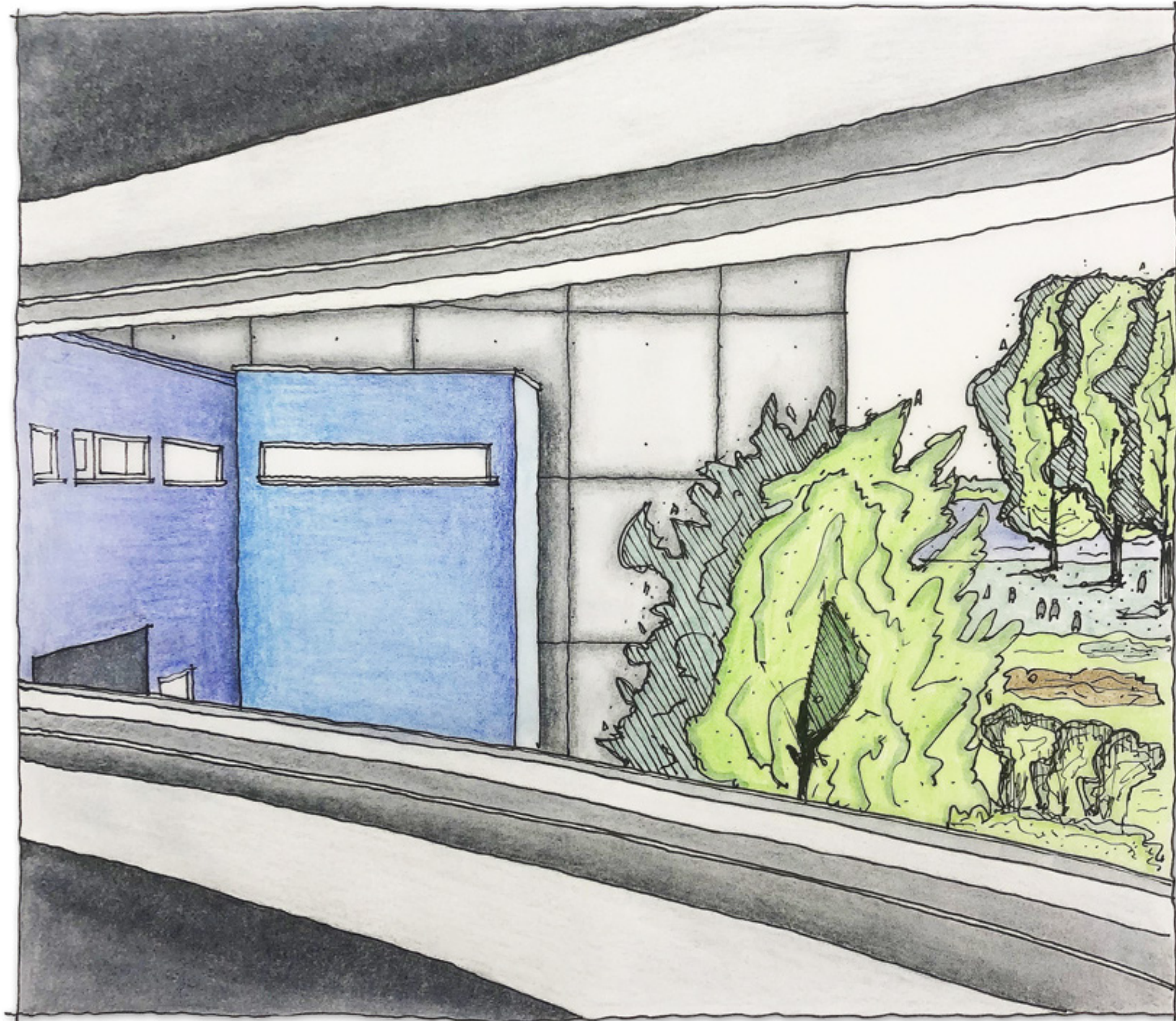


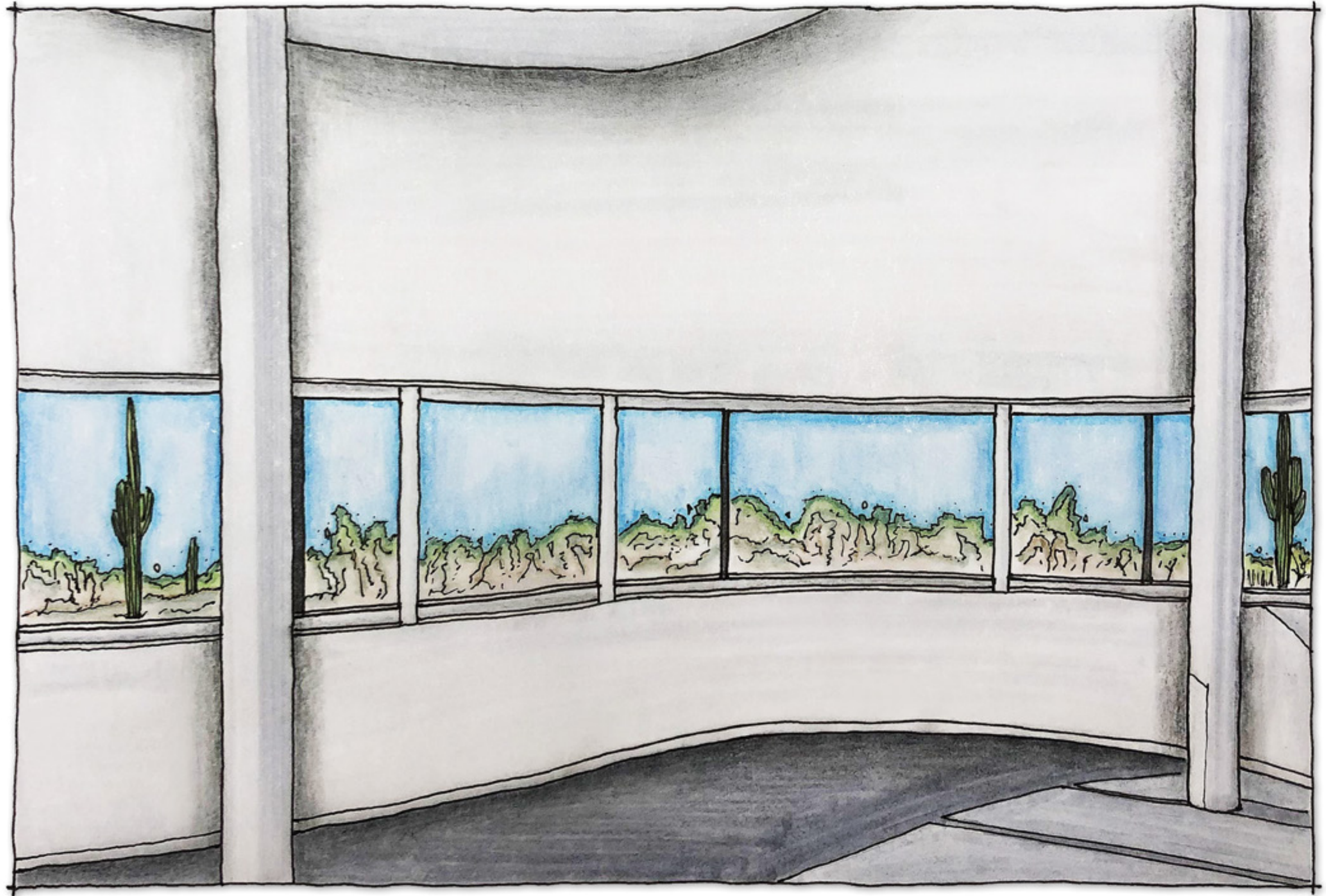


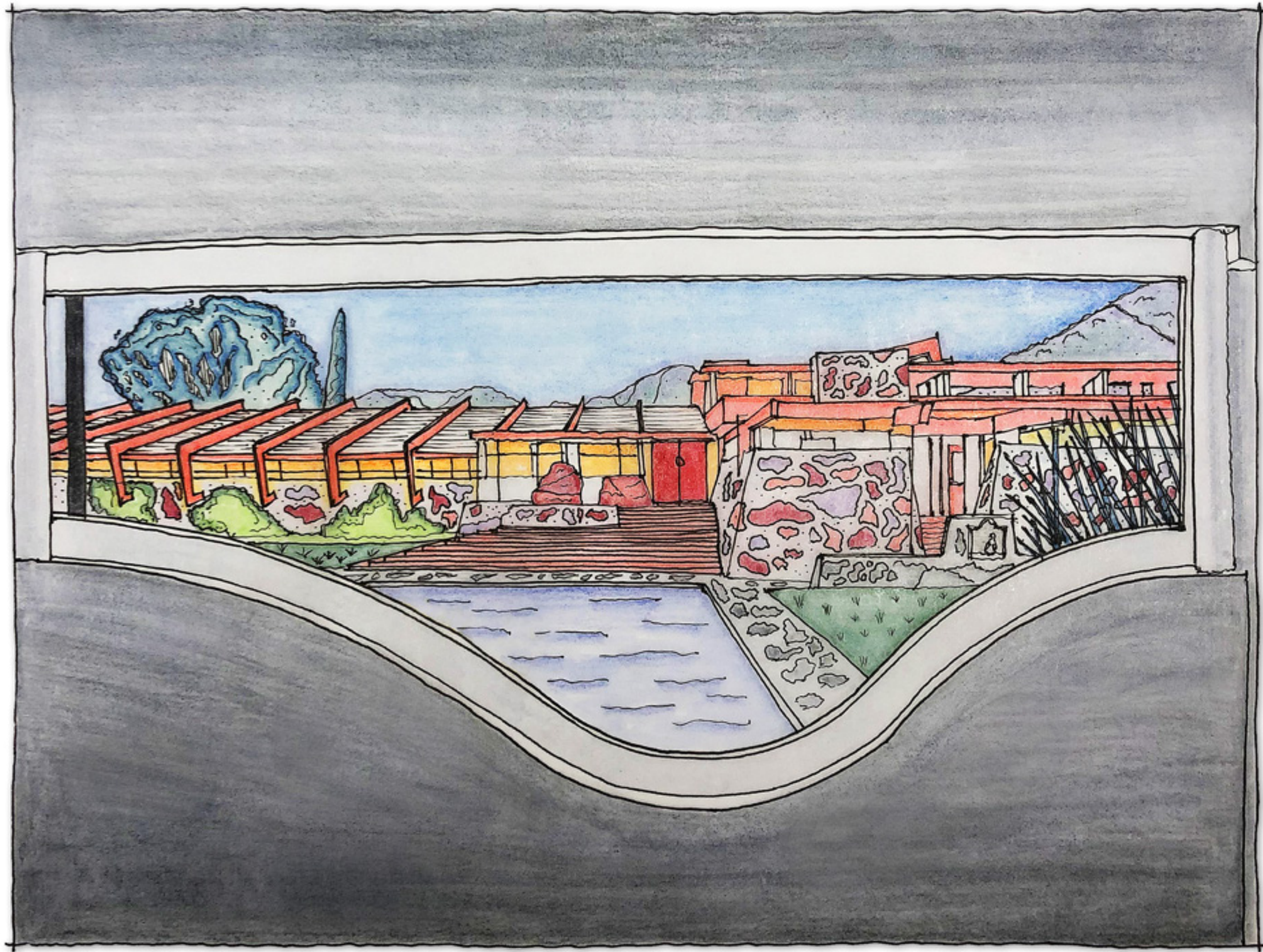






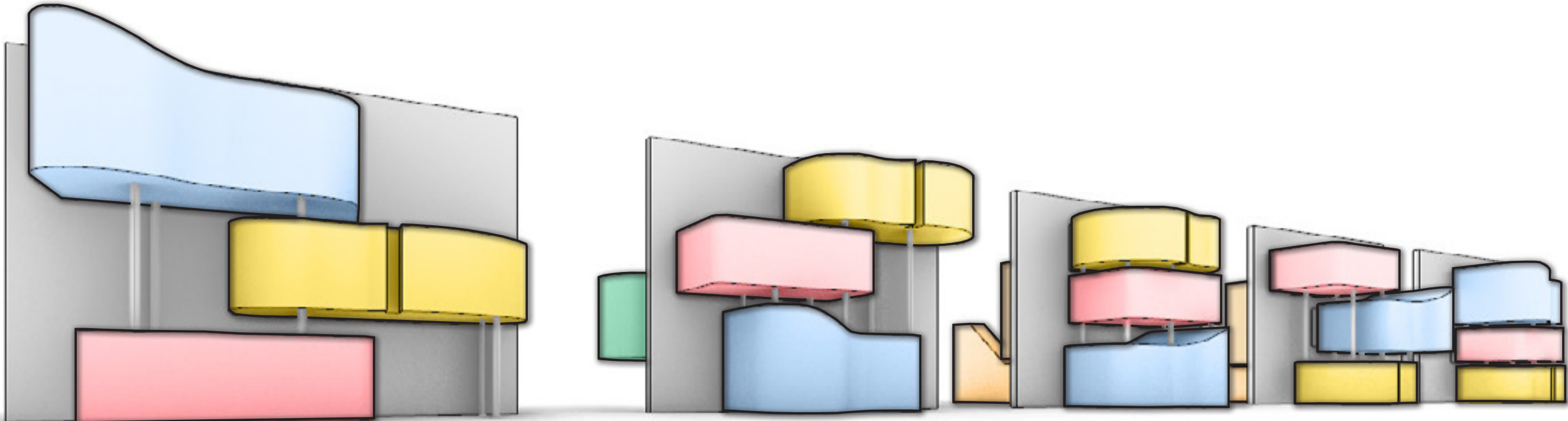


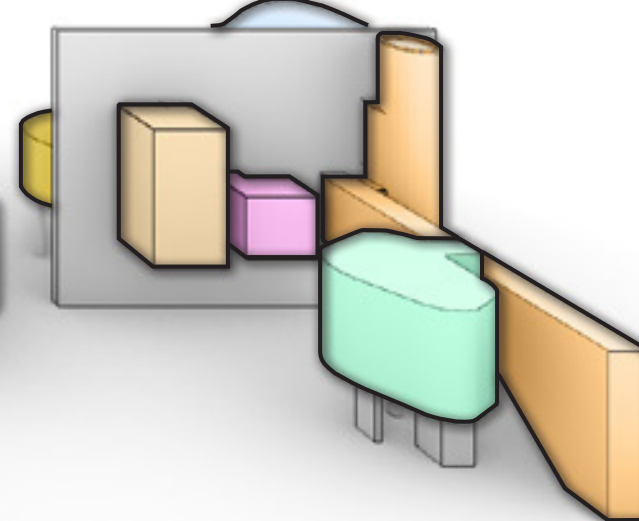
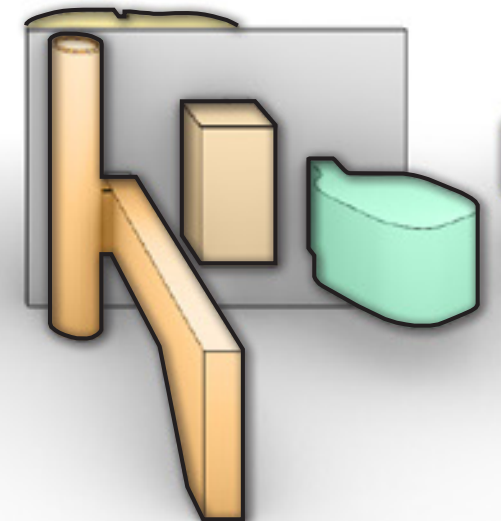
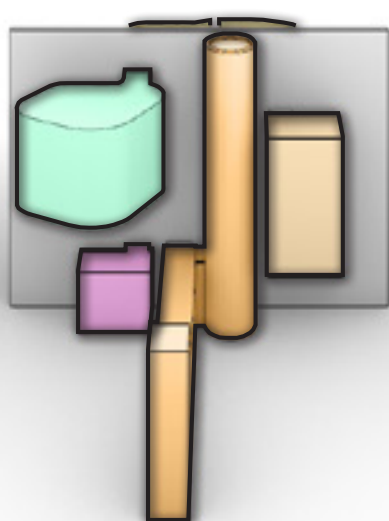
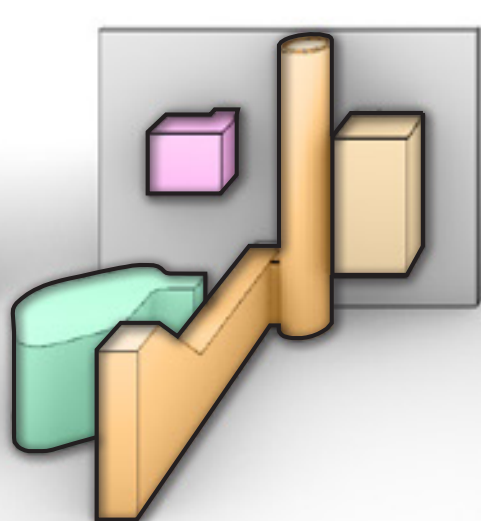
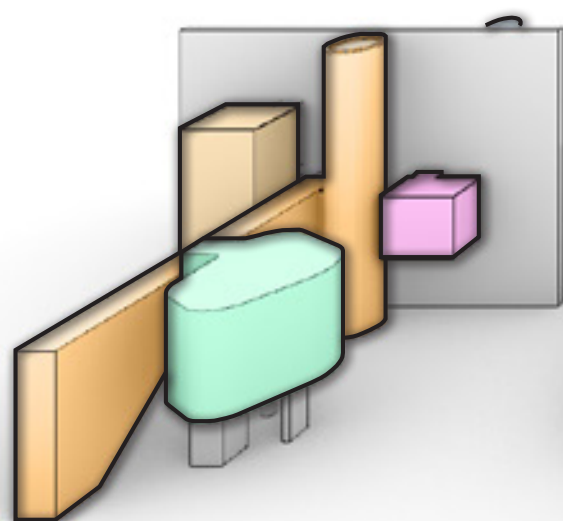
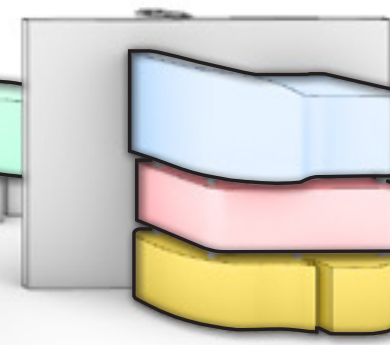
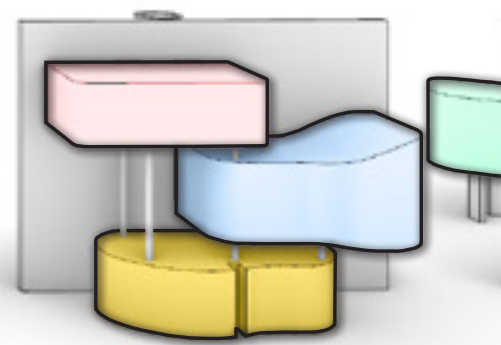
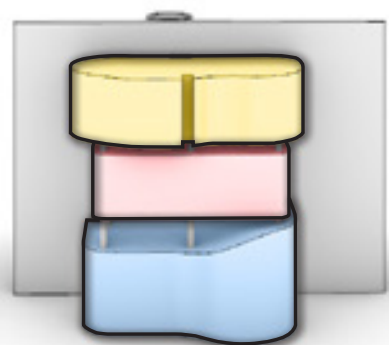
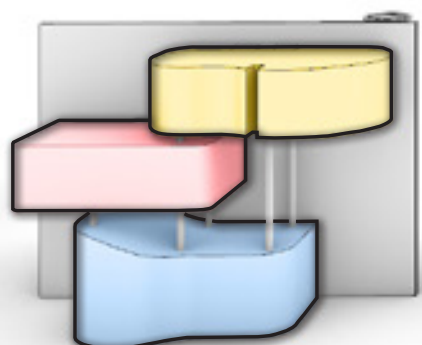
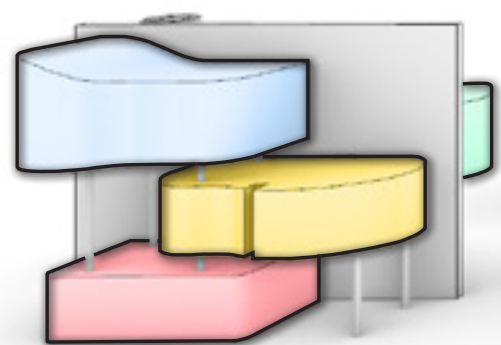




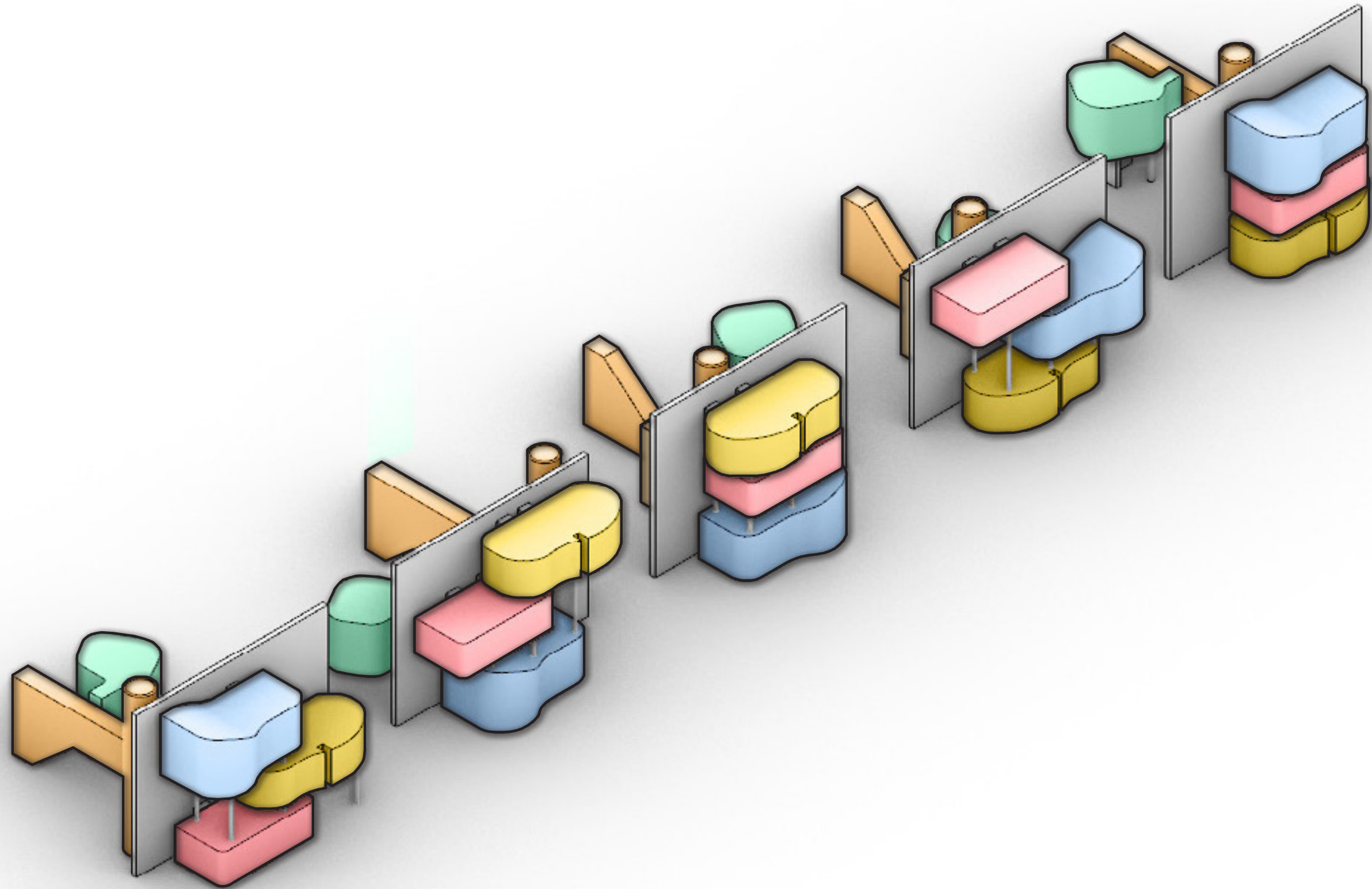


# Re-configuration of the Architecture

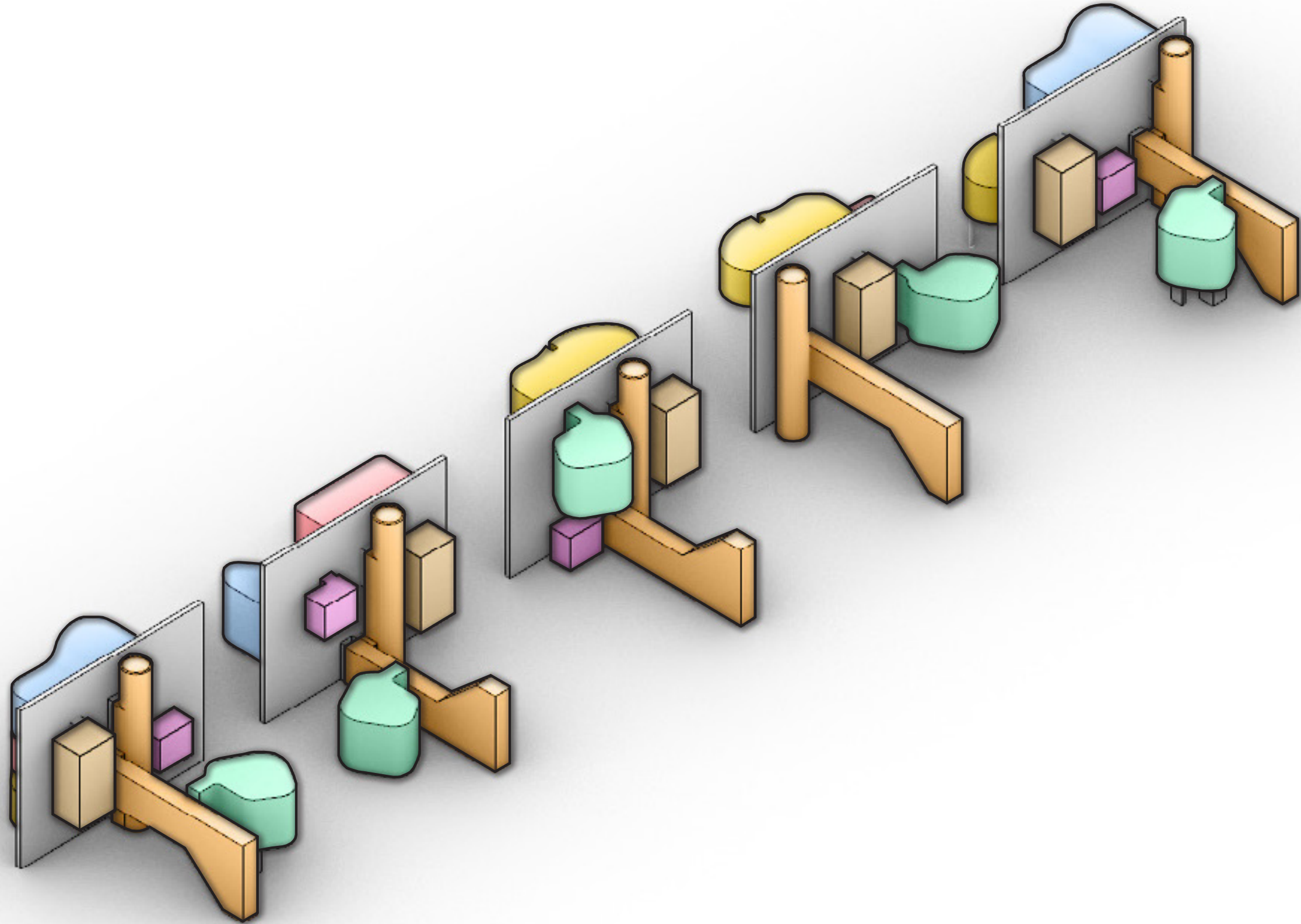




# Sfumato & Chiaroscuro



# Inversion of Primary & Secondary Colors





# URBAN POROSITY

Design Studio, Fall 2019

Location: Seoul, South Korea

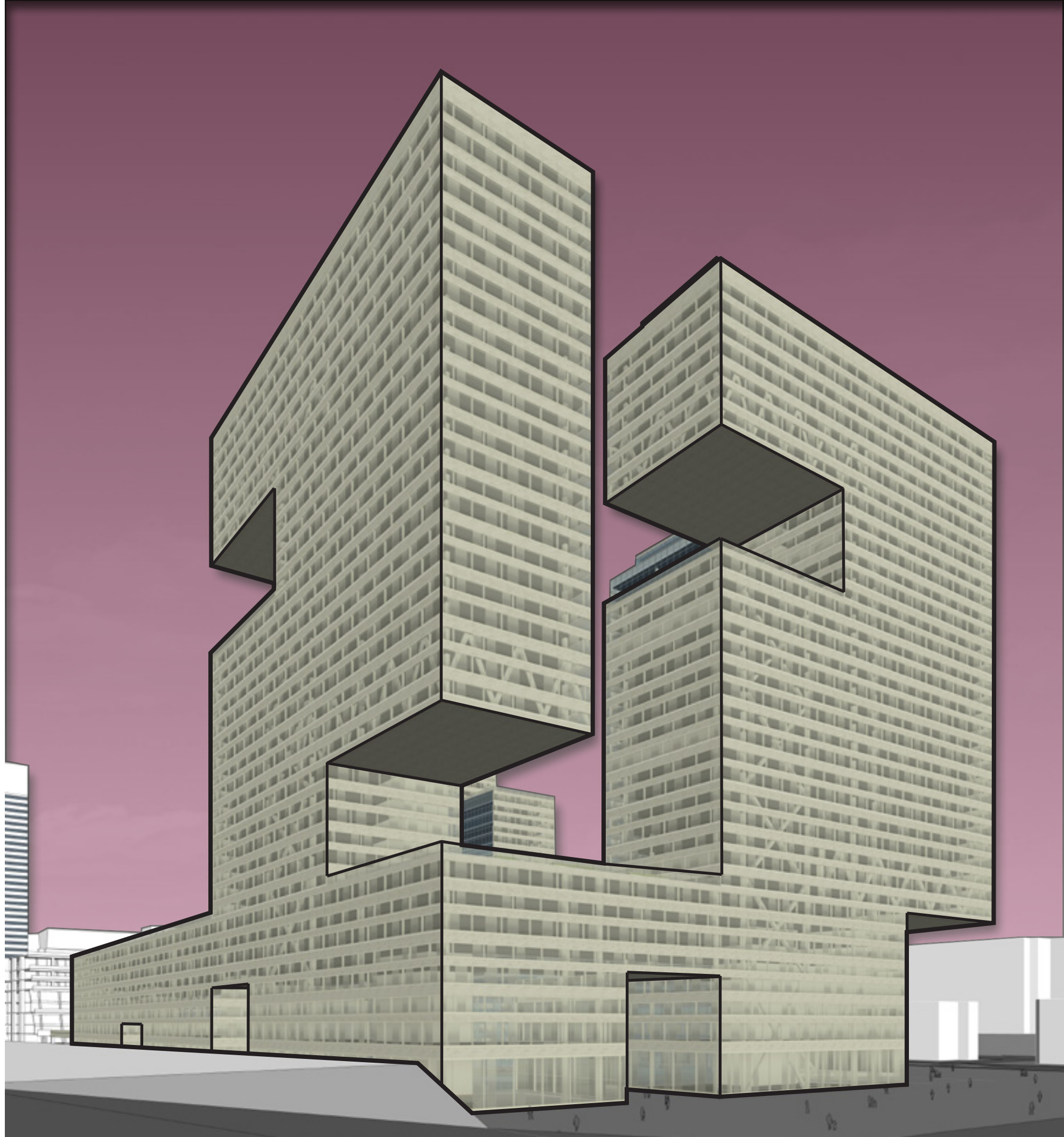
Professor: Richard Plunz

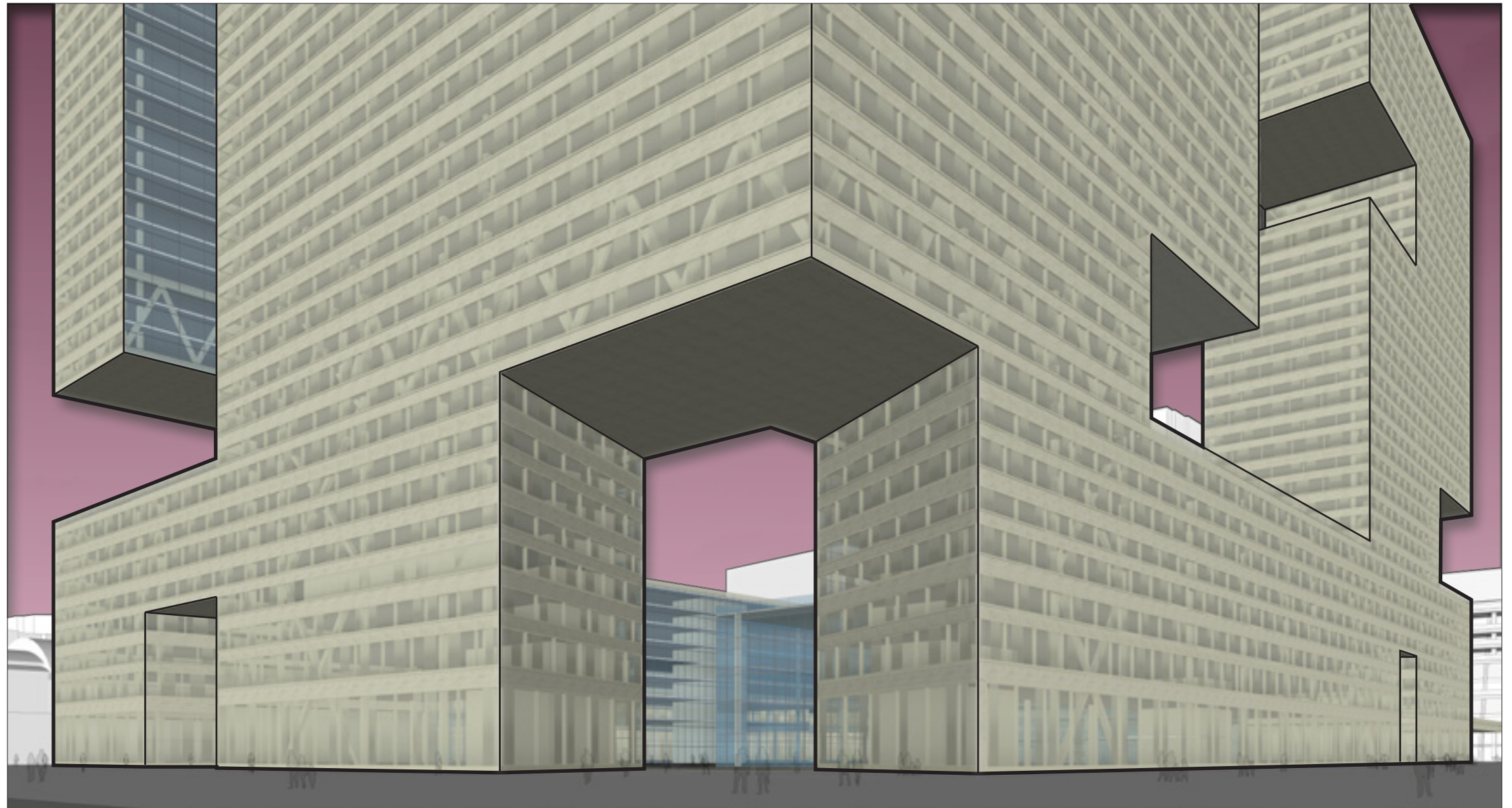
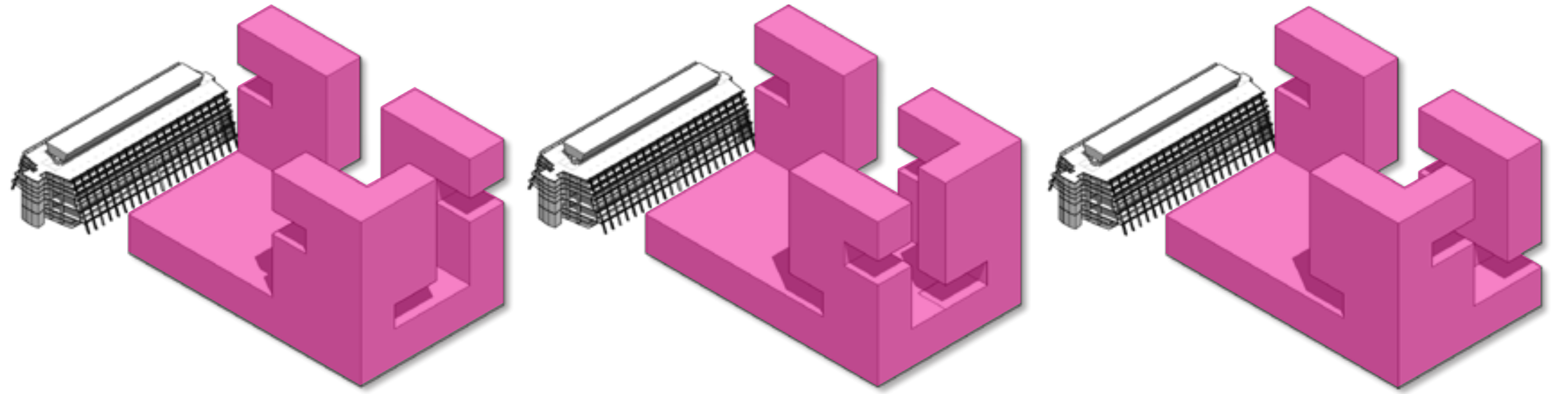
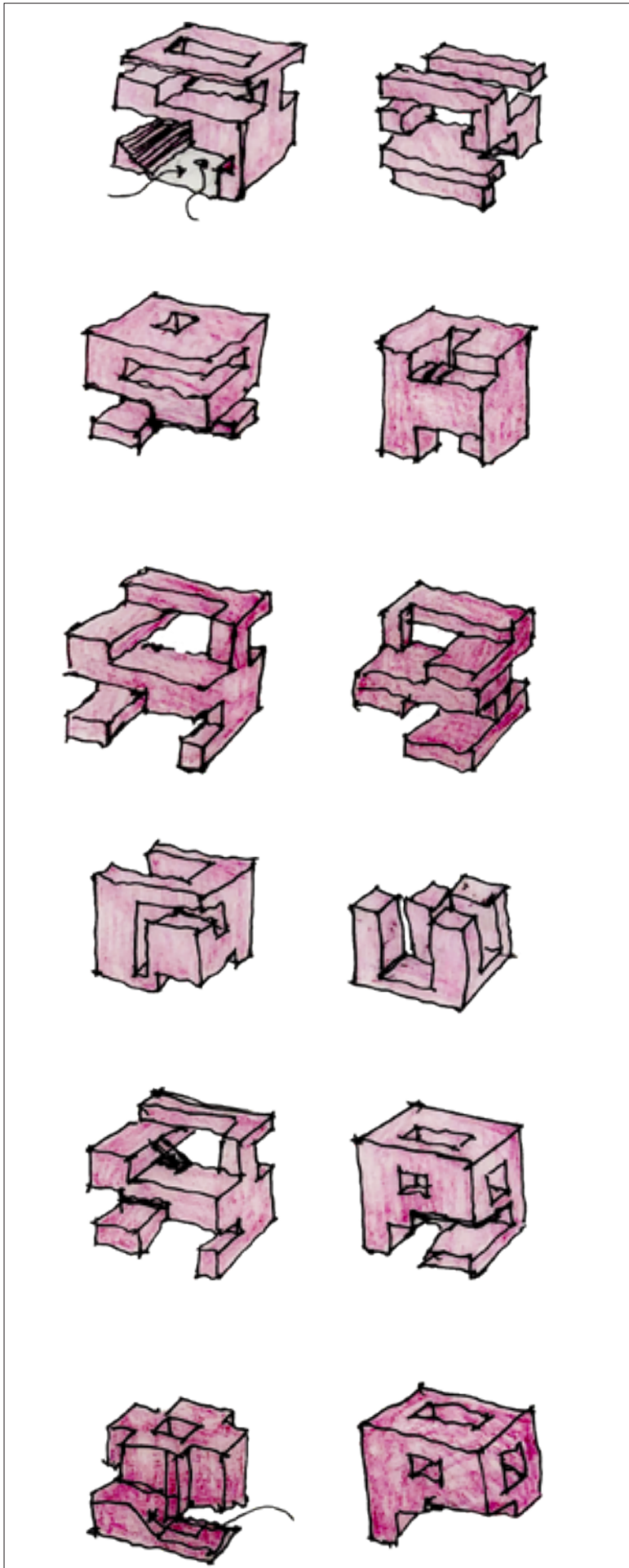
Introduced is a new urban typology for a mixed-use development as an urban catalyst; a mediator between the architecture of the city and local landscape including the surrounding residential neighborhood, as a mixed-use indoor and outdoor hub. Proposed is a new beacon for the city of Seoul and the nation of South Korea; a bold architectural and urban statement that encourages social integration and innovation.

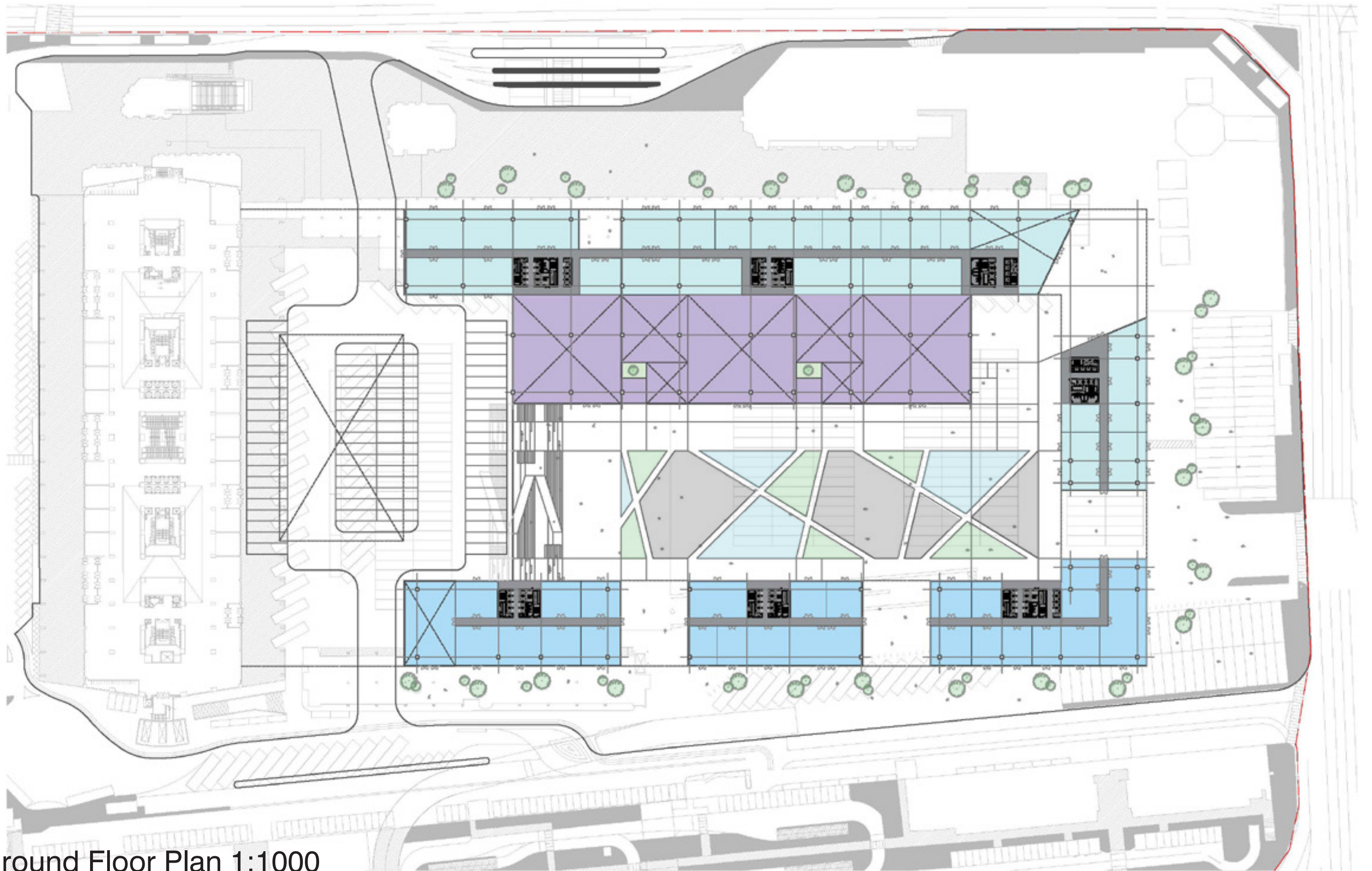
Furthermore, a single large perimeter block creates a large public plaza with a variety of functions and characters, consequently creating a metropolitan public space in contrast to a normative podium and tower scheme. The massing responds to the distribution of natural light and principal views. The required minimum sunlight exposure to the surrounding urban fabric dictates the precise geometric openings measurements that punctuate the structure. Moreover, two green platforms organize the major public space, one is at the base level and one at the roof level. At the base level, the double fronted stores open to the street as well as to the urban plaza, establishing a human scale within the block.

A connection with the existing Express Bus Terminal is via a monumental stair to an elevated garden as an extension of the existing flower market. The public plaza at the center of the perimeter block is intended to resonate with the gardens scattered throughout the residential neighborhoods. A permeable envelope with public programs and multiple entries animate the ground floor.

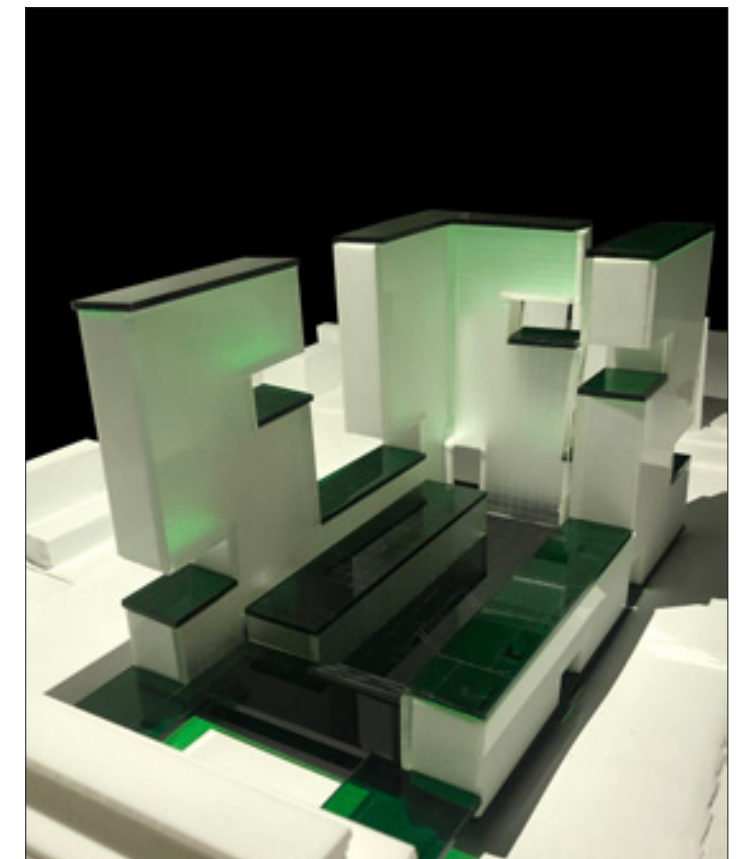
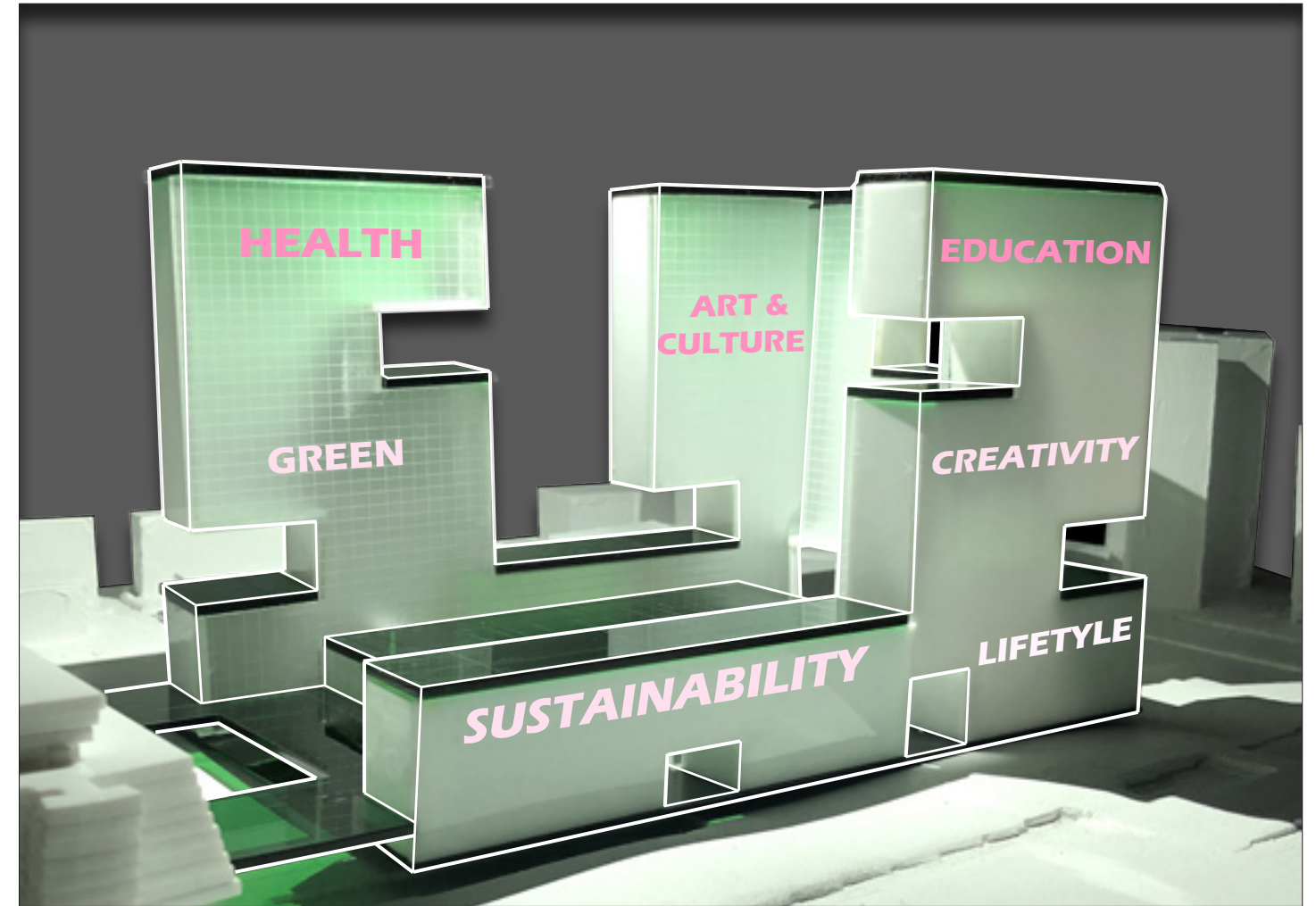
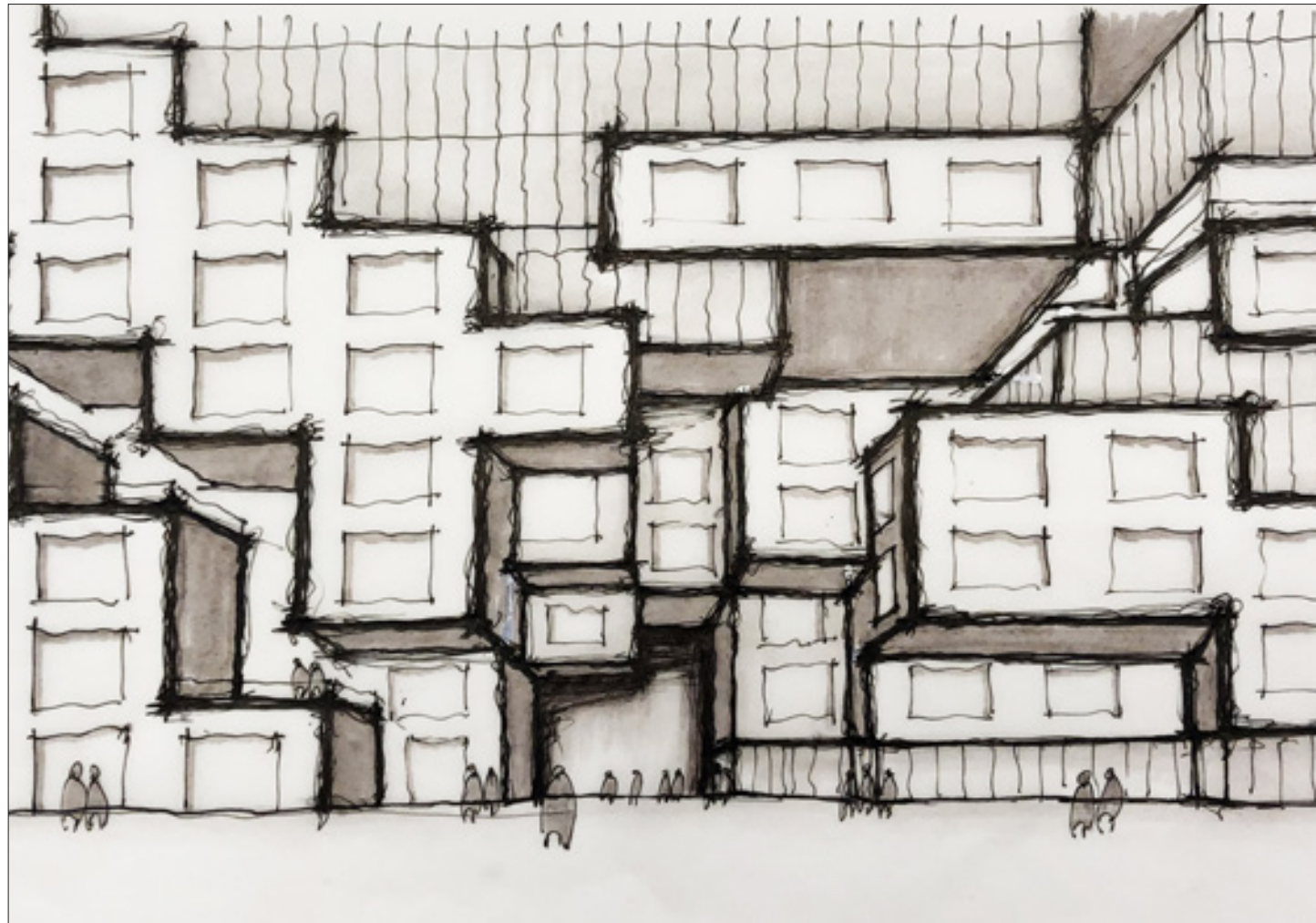
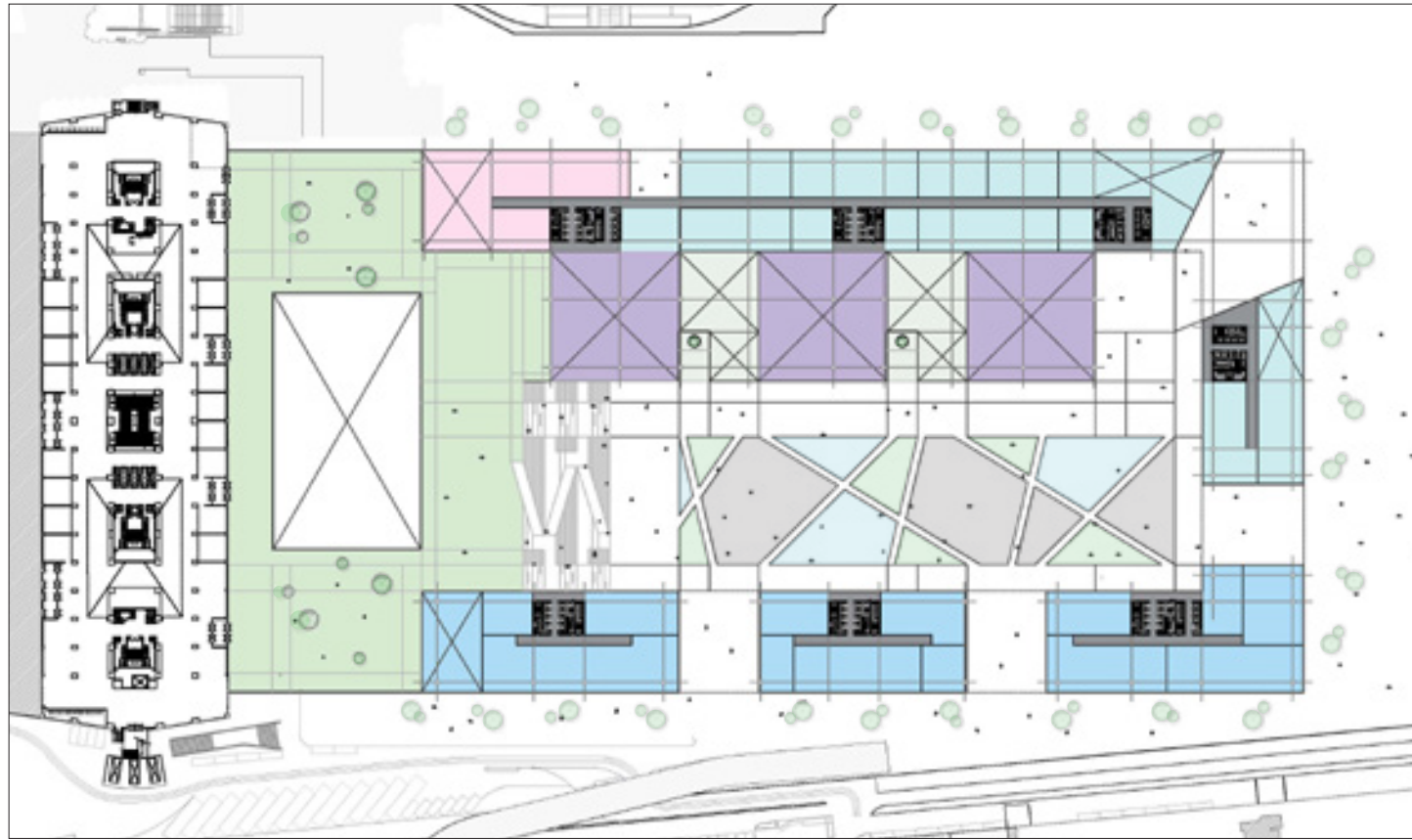
## NEW URBAN TYPOLOGY



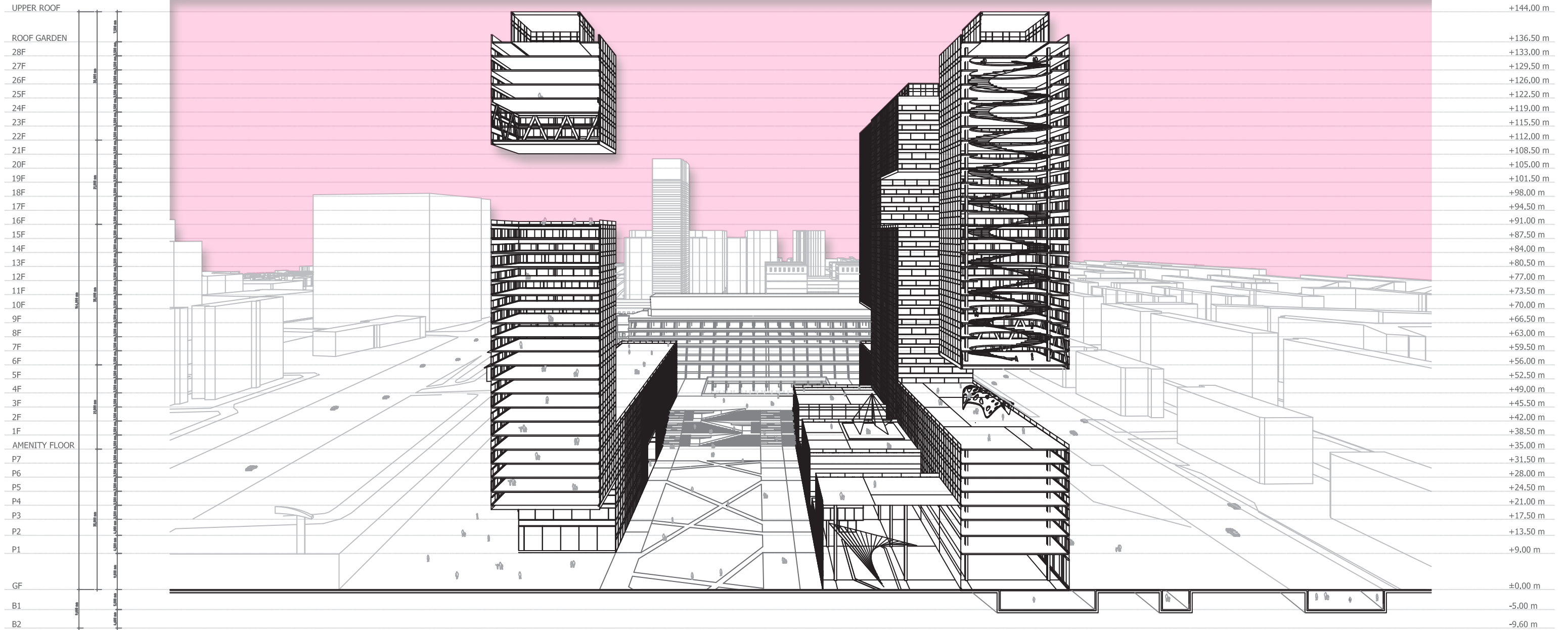
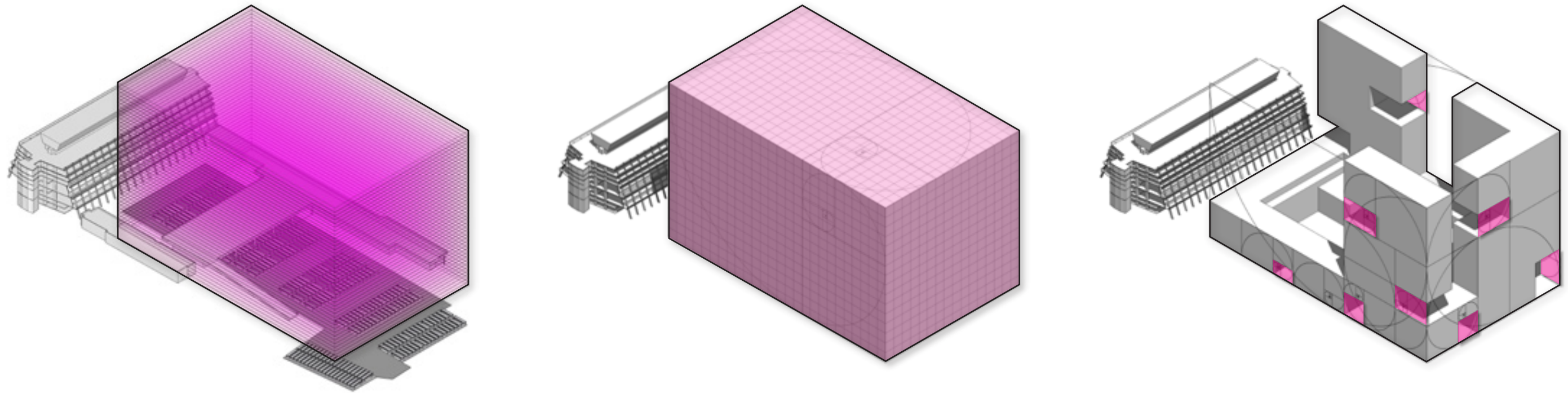


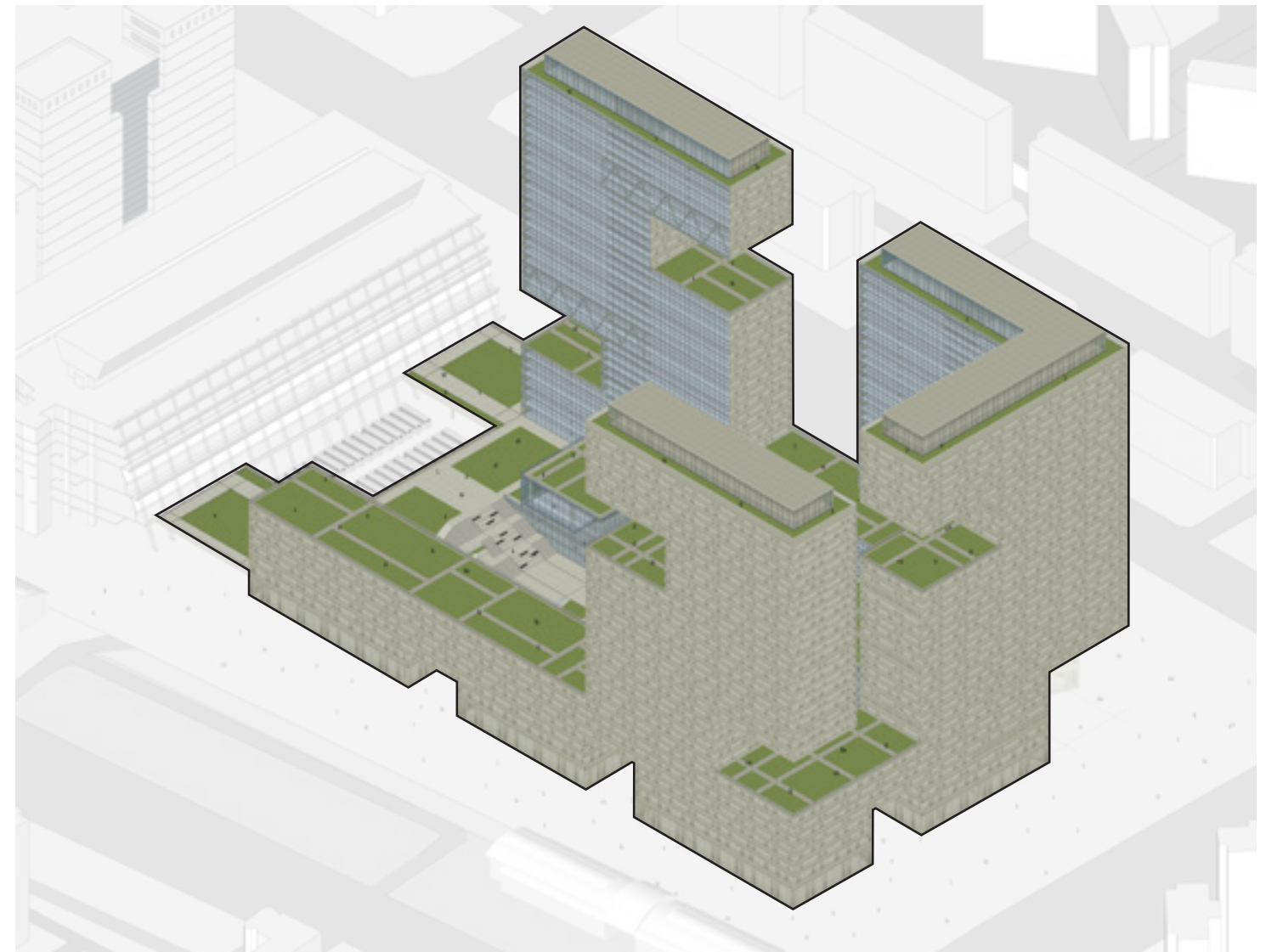
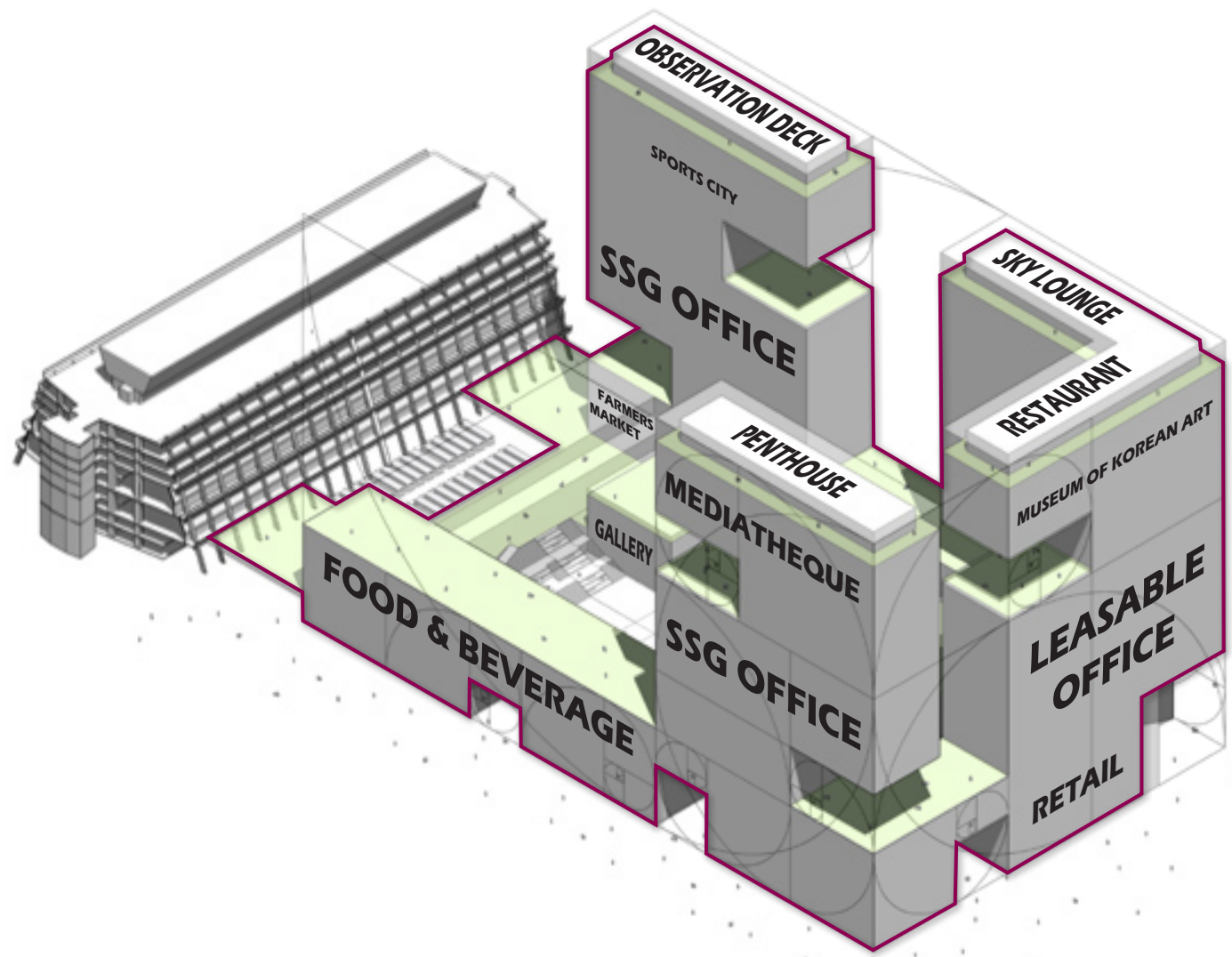
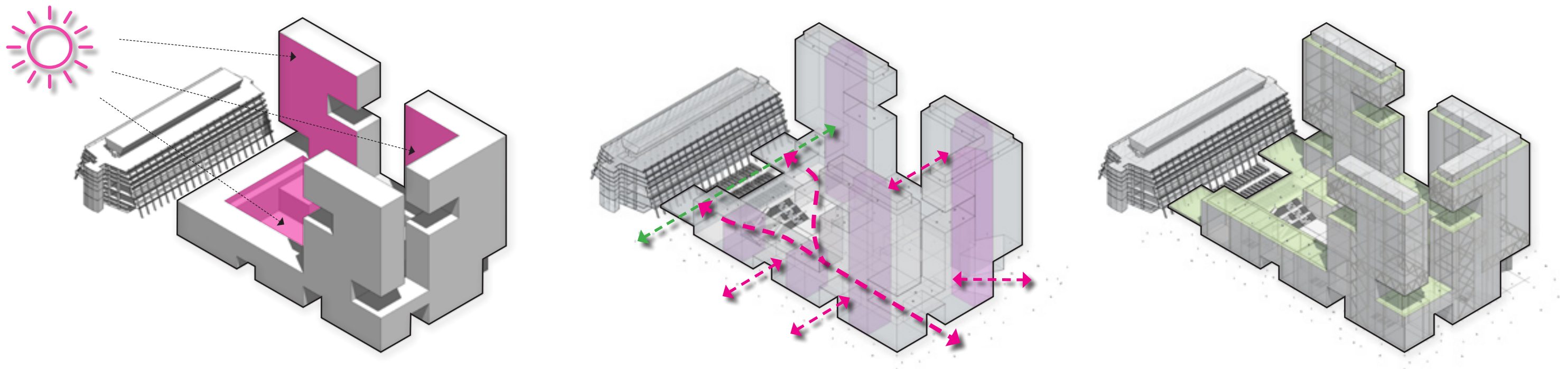


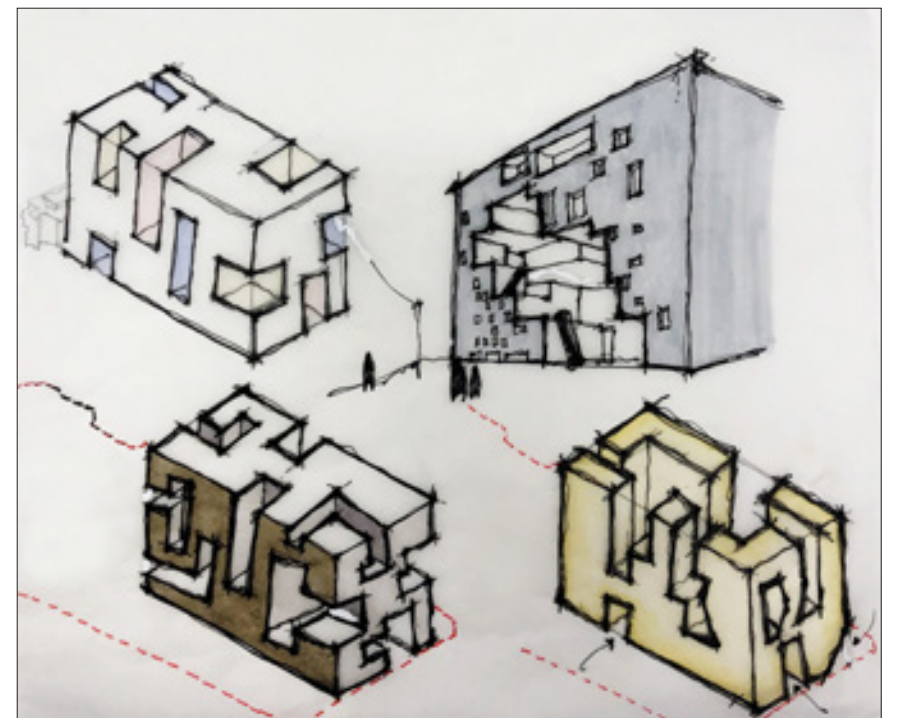
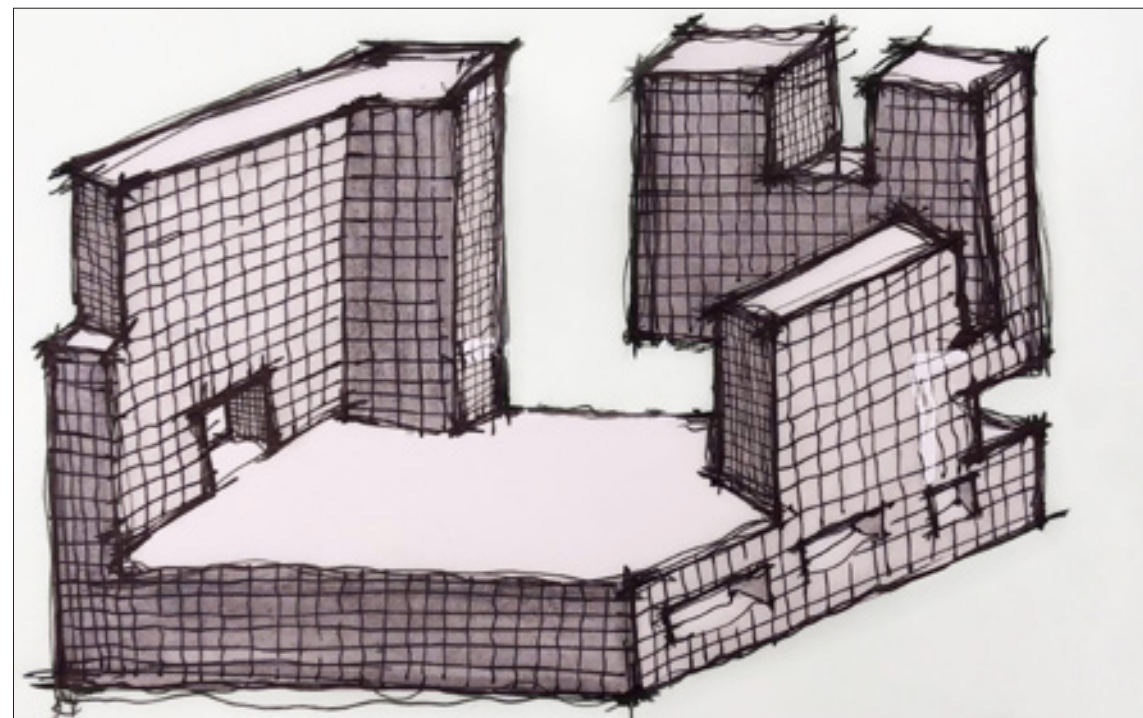
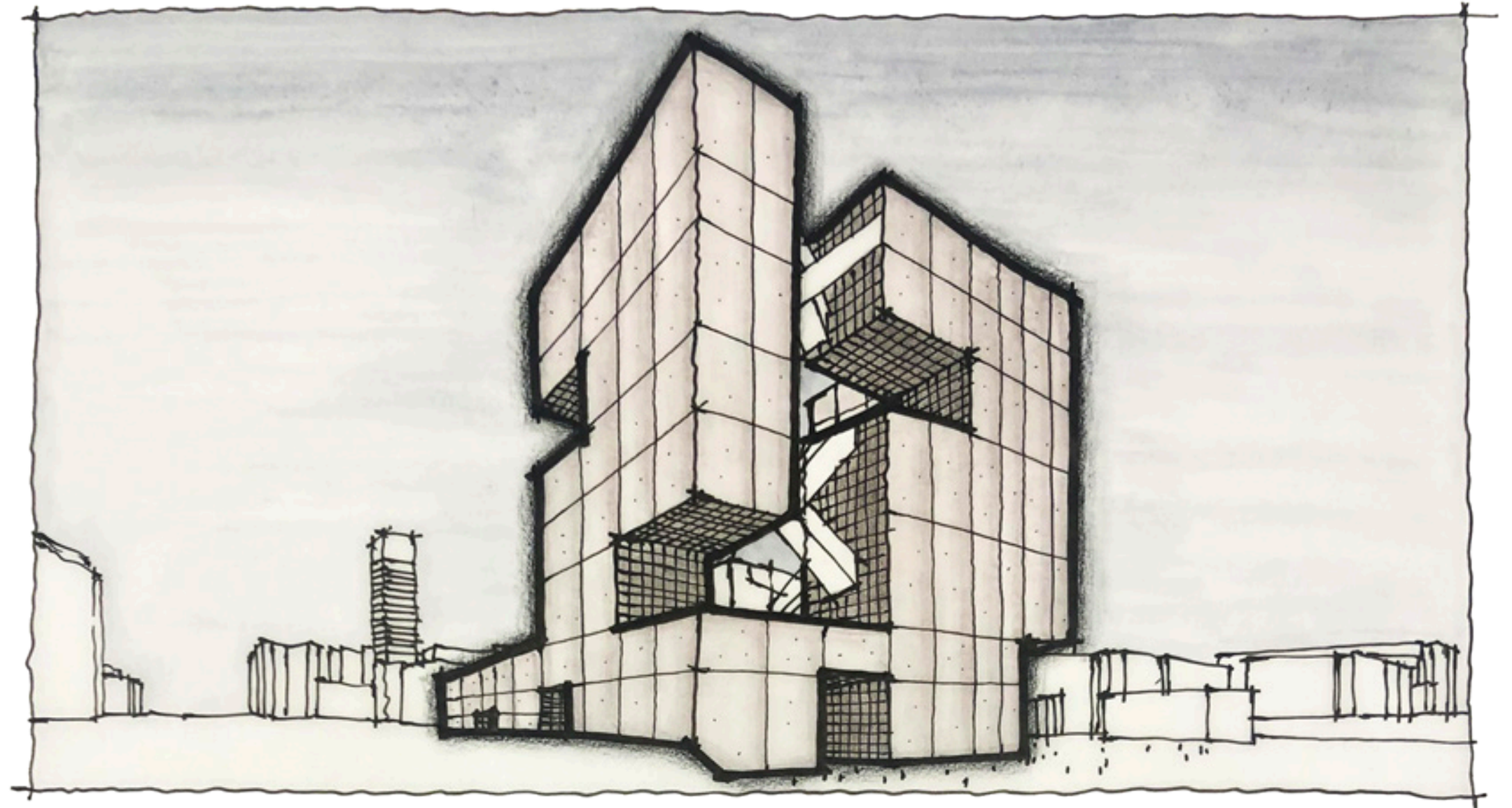
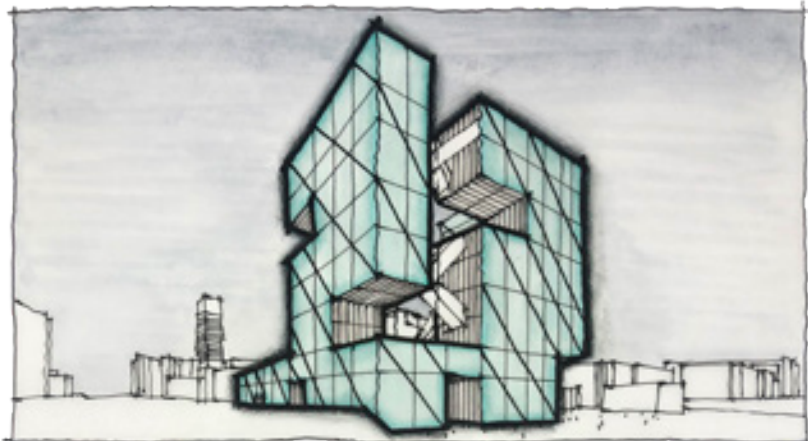
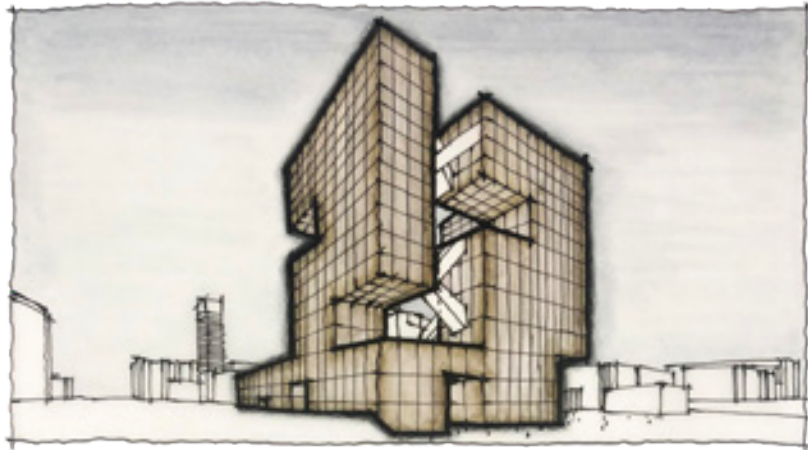
Ground Floor Plan 1:1000



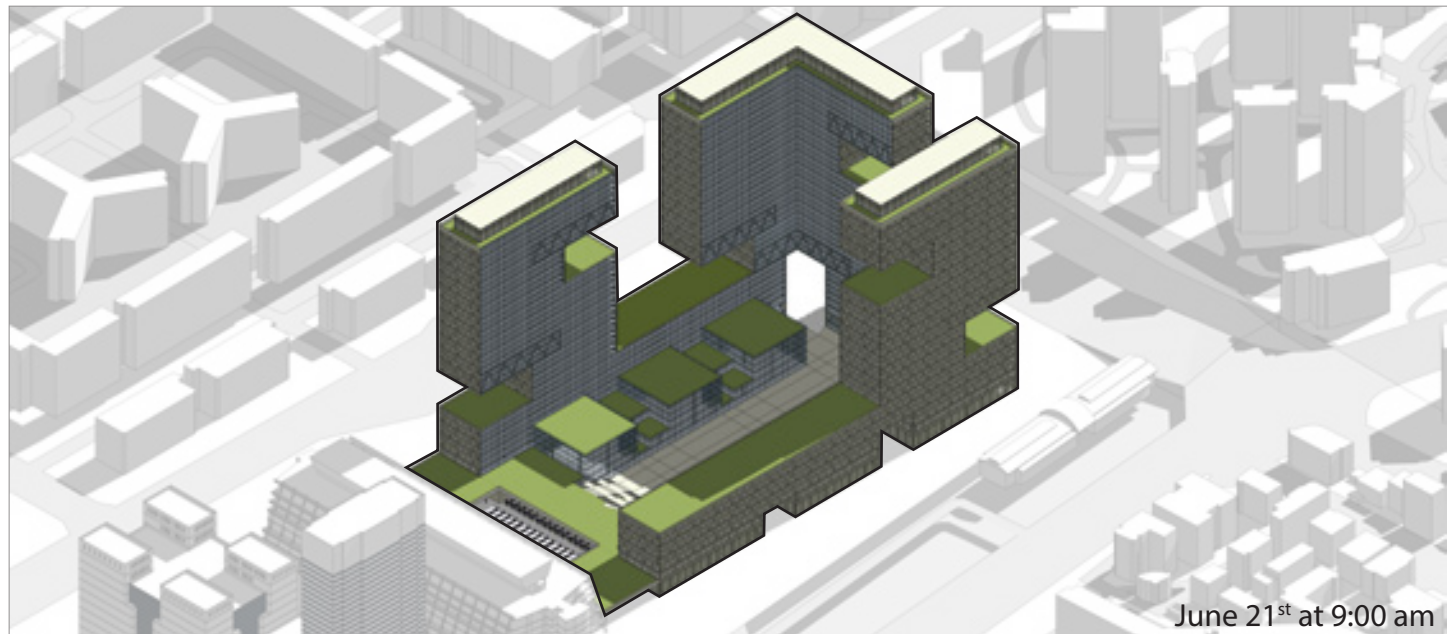




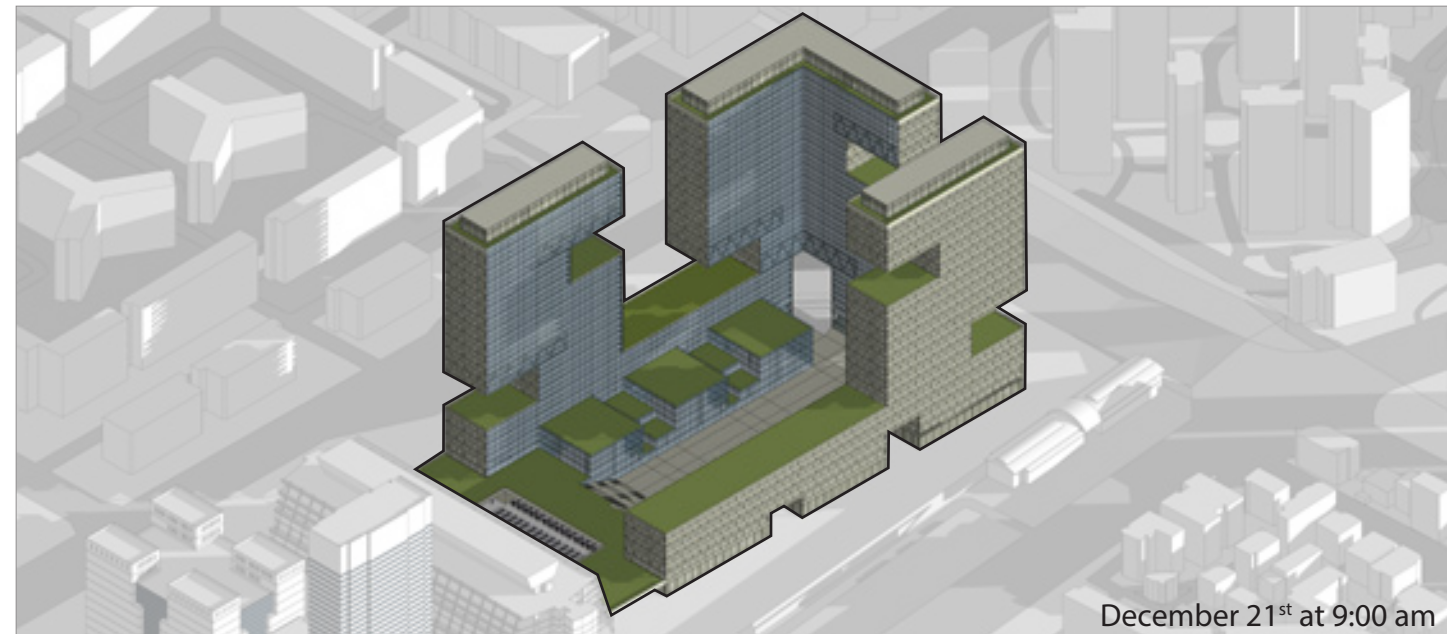




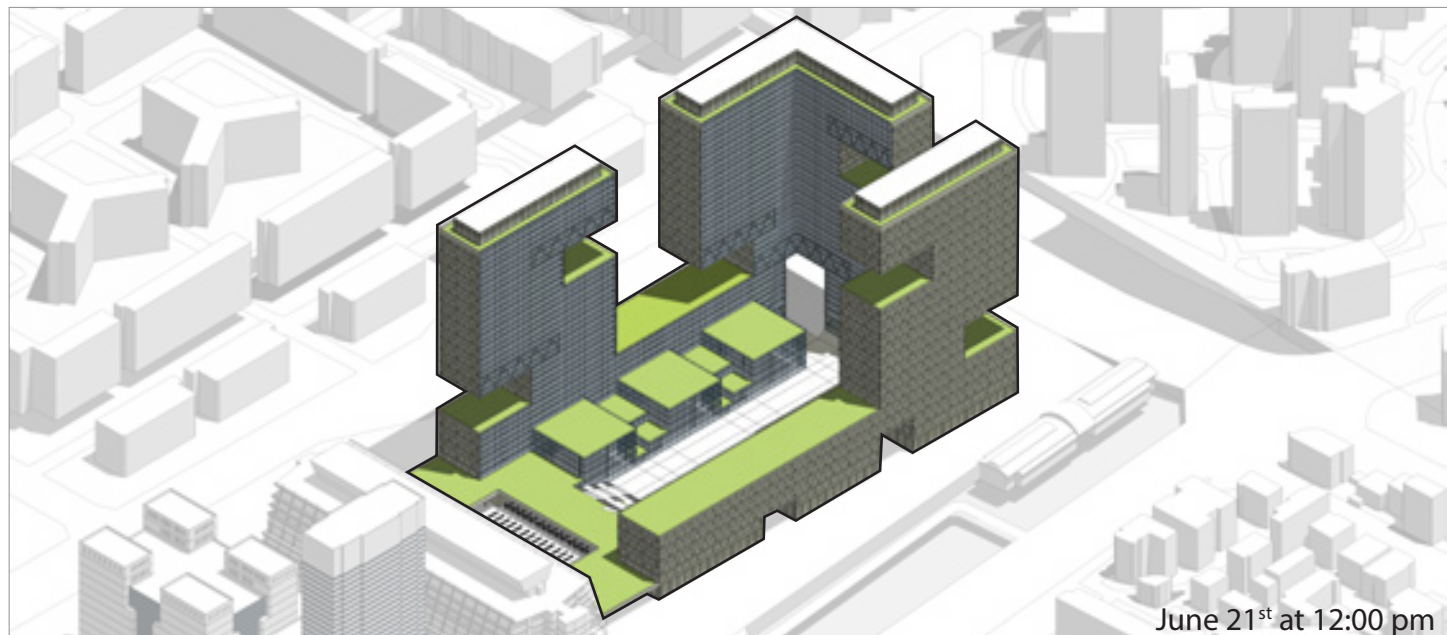




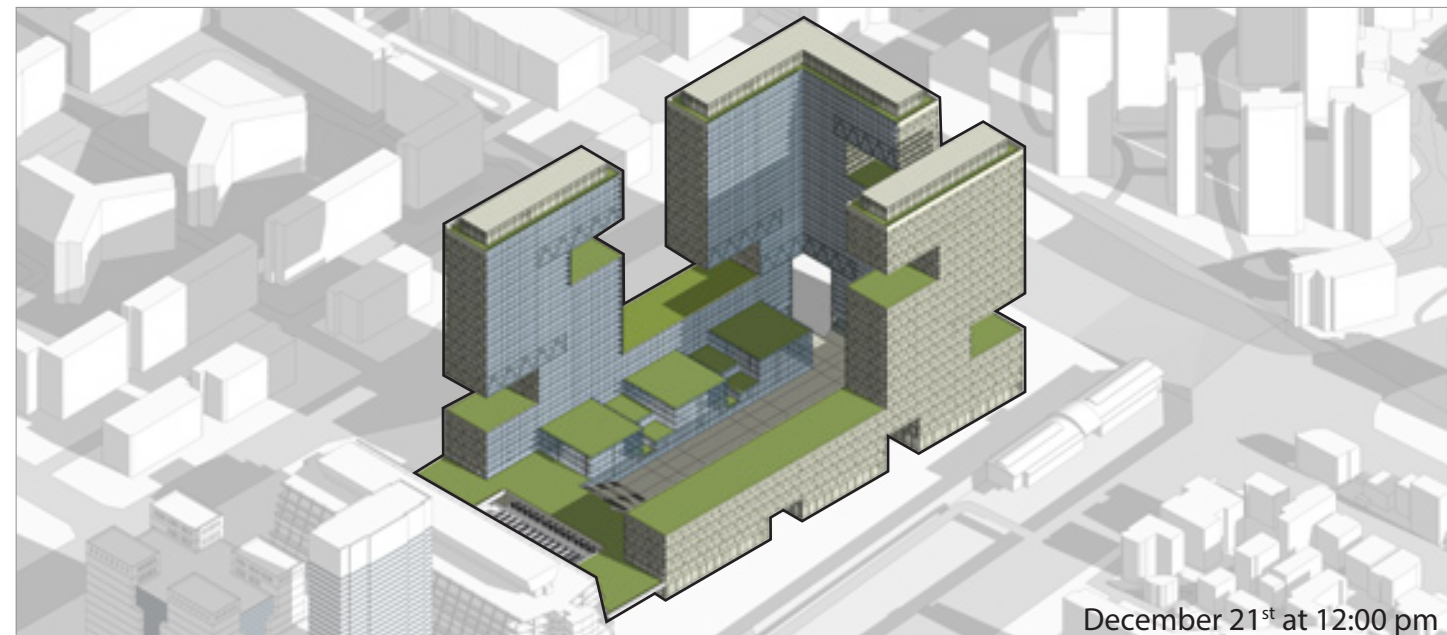
June 21<sup>st</sup> at 9:00 am



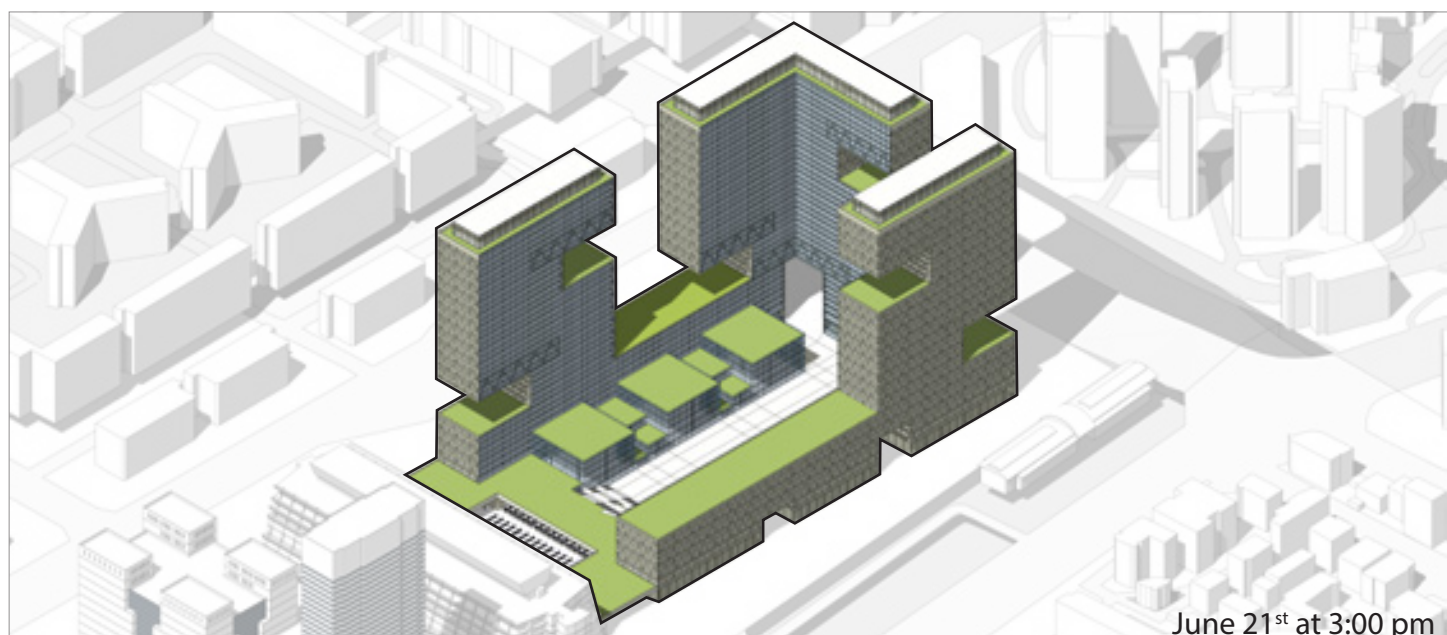
December 21<sup>st</sup> at 9:00 am



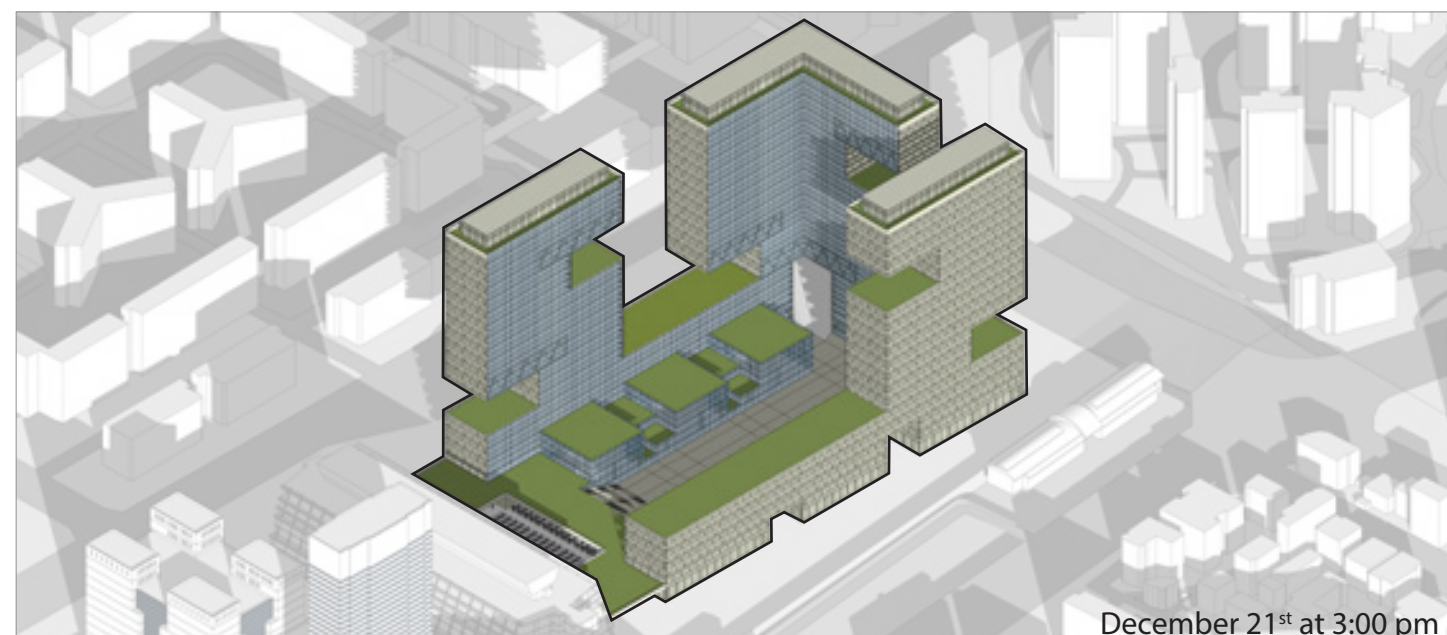
June 21<sup>st</sup> at 12:00 pm



December 21<sup>st</sup> at 12:00 pm

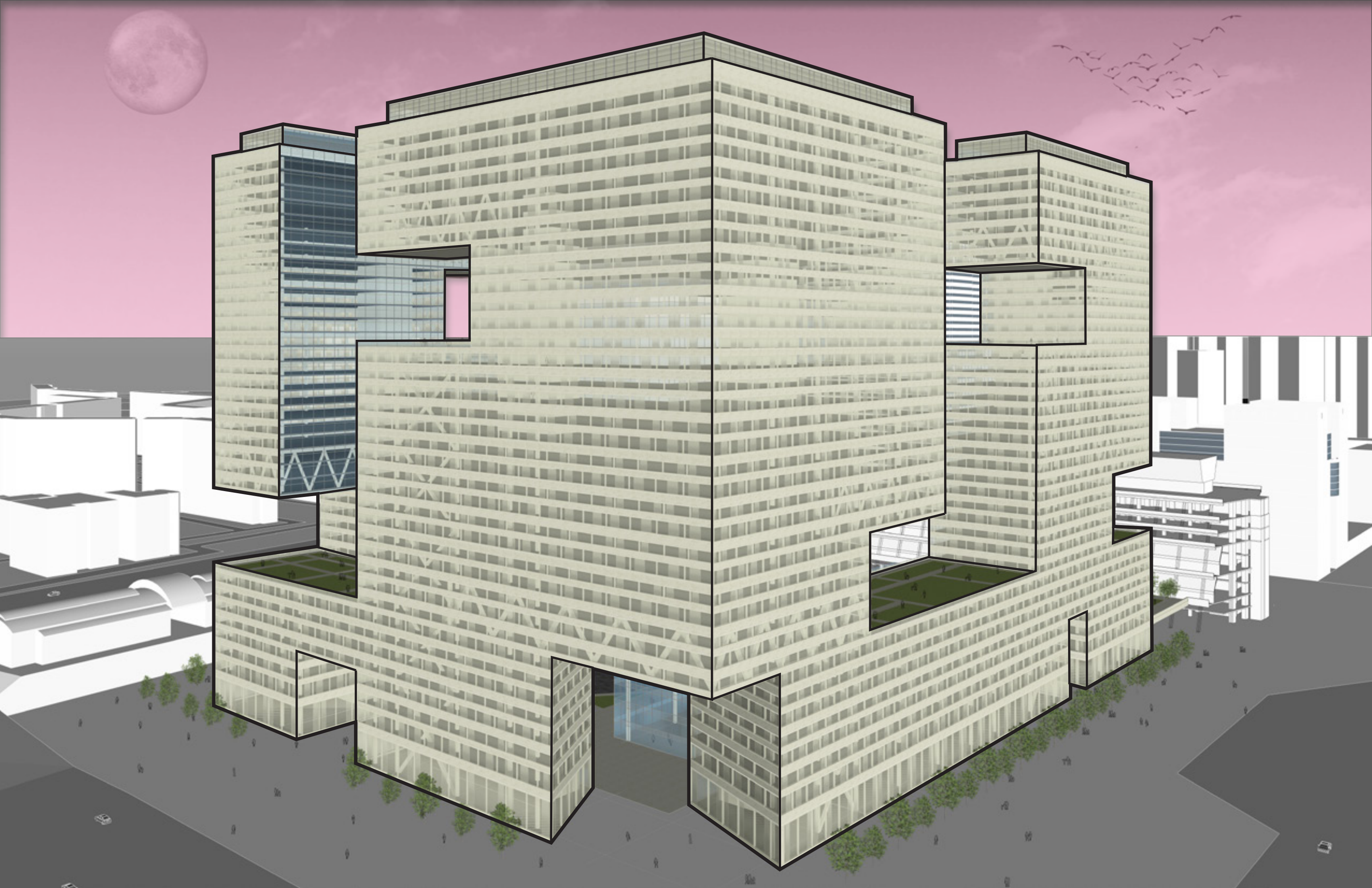


June 21<sup>st</sup> at 3:00 pm



December 21<sup>st</sup> at 3:00 pm

## Summer & Winter Solstice



# SLOW REGENERATOR

Advanced Design Studio, Fall 2019

Location: Seoul, South Korea

Professor: Richard Plunz

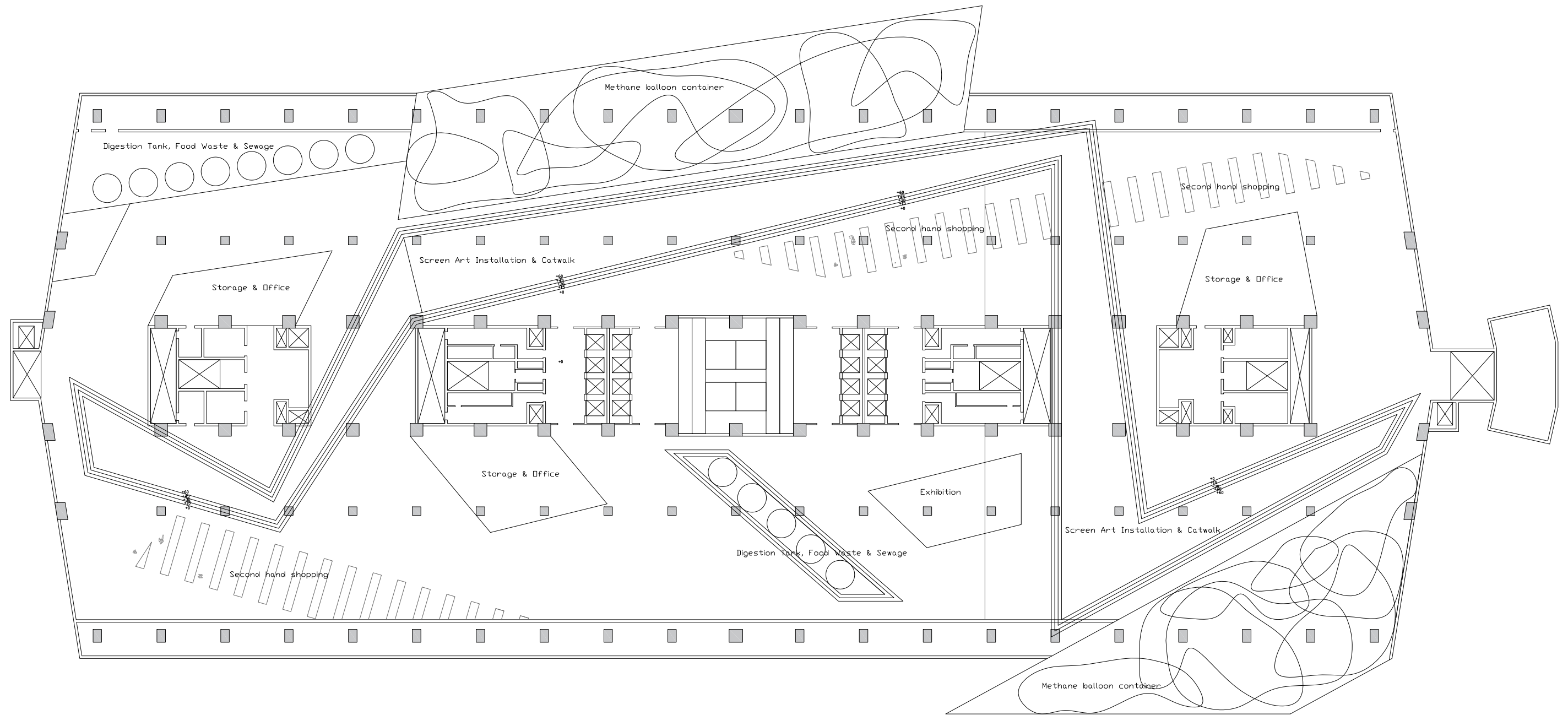
Partner: CJ Wang (Research Phase)

Consumerism, commodification and the fast-fashion has forced the people to re-think the fundamental value of material cycles; leading to the opportunity of what happened after shopping? In response to fast culture, our project creates a new vision for the city, which turns unwanted resources into commodities, and visualizes the hidden processes that are often neglected in our perfect modern lives. Additionally, the pace of modern life in mega-cities like New York, and Seoul is fast. Fast is meant for hasty action, like fast food and fast fashion.

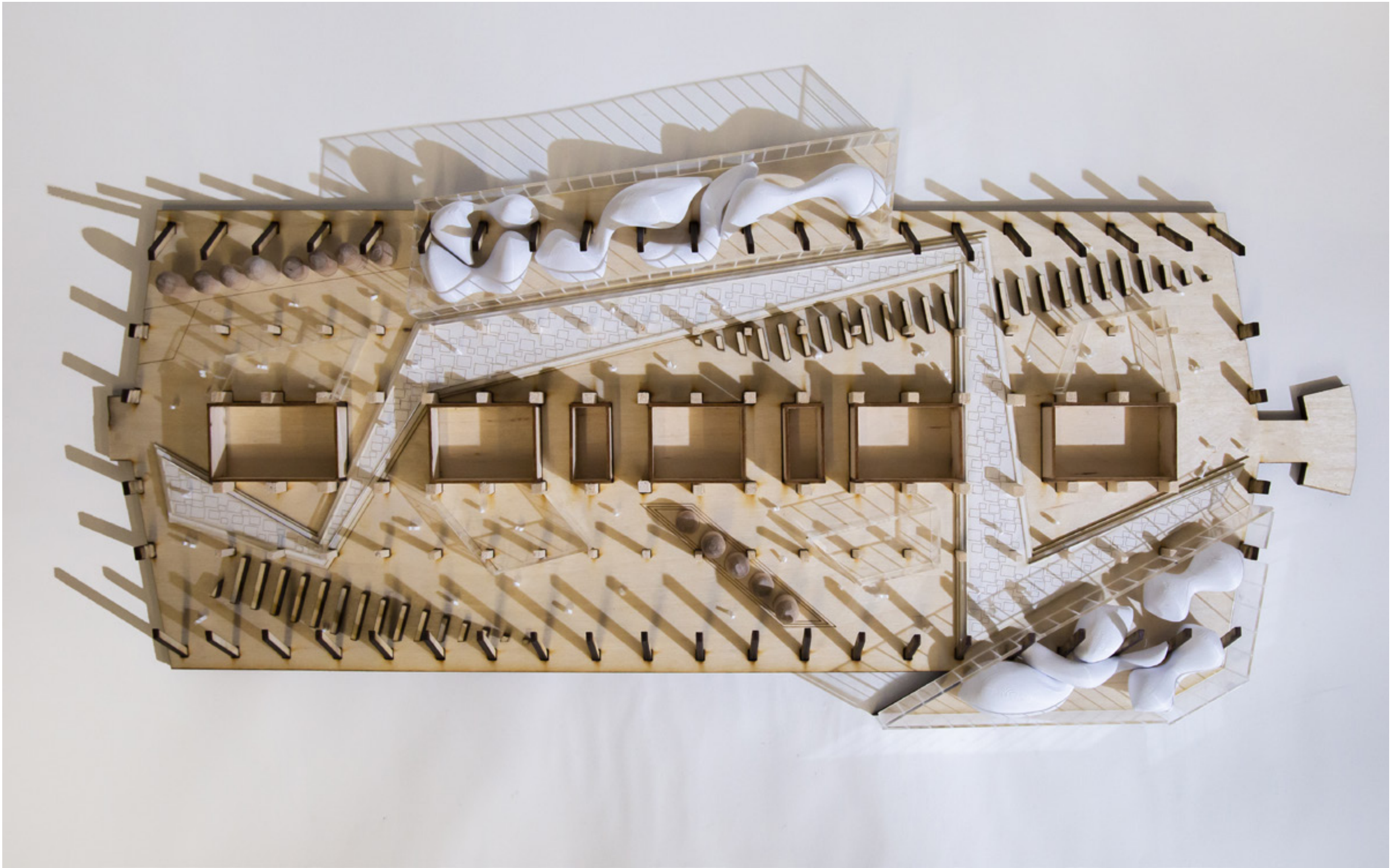
The term "Fast Fashion" is used by fashion retailers to describe products that move from catwalk quickly to capture current fashion trends. It also can be critical, in describing the fast movement from runway to store to consumer and to garbage. And, in order to fulfill consumer's demand, fast fashion brands provide affordable prices and a wide range of clothing that reflects the latest trends. Consumers are persuaded to buy more items which leads to overconsumption and more garbage.

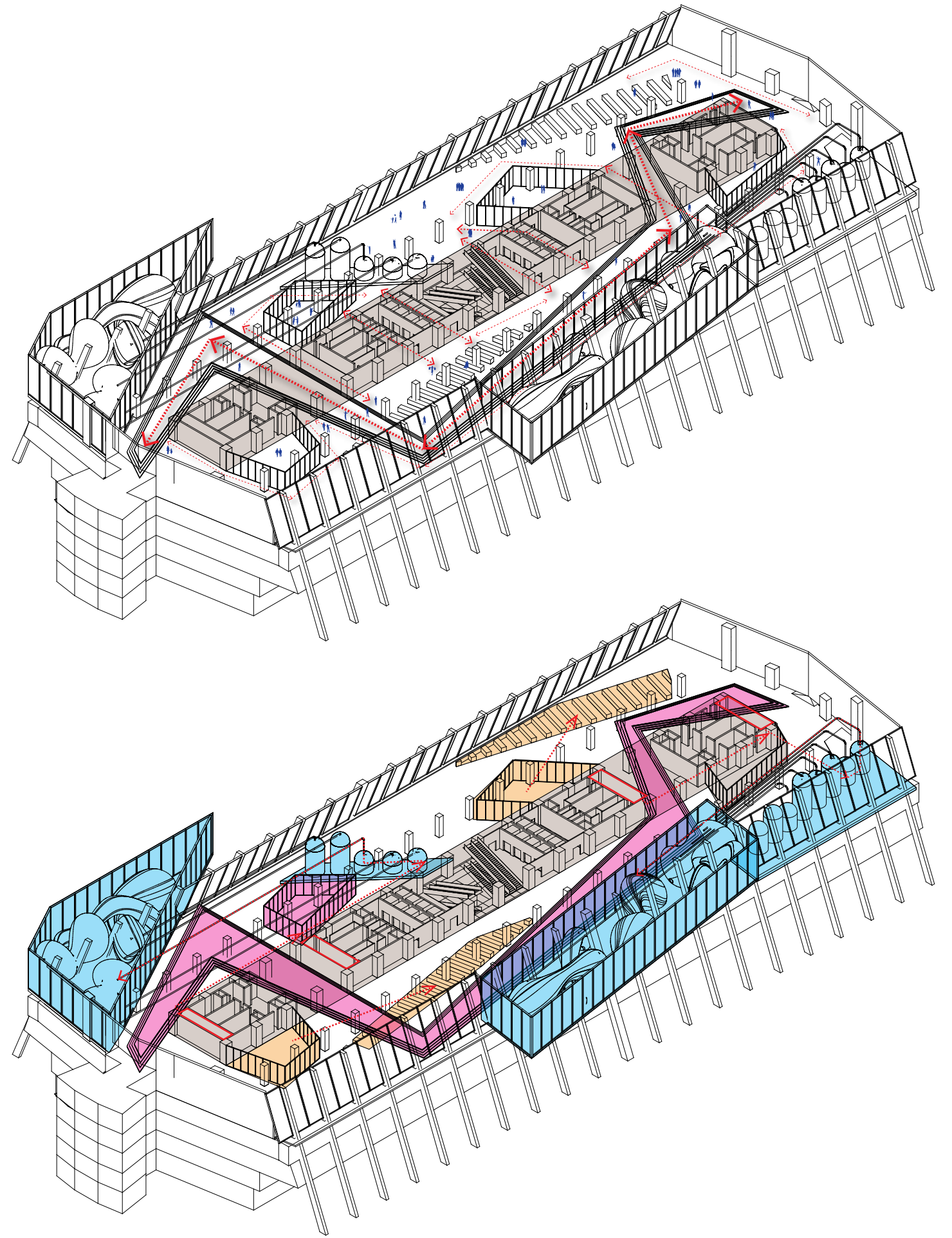
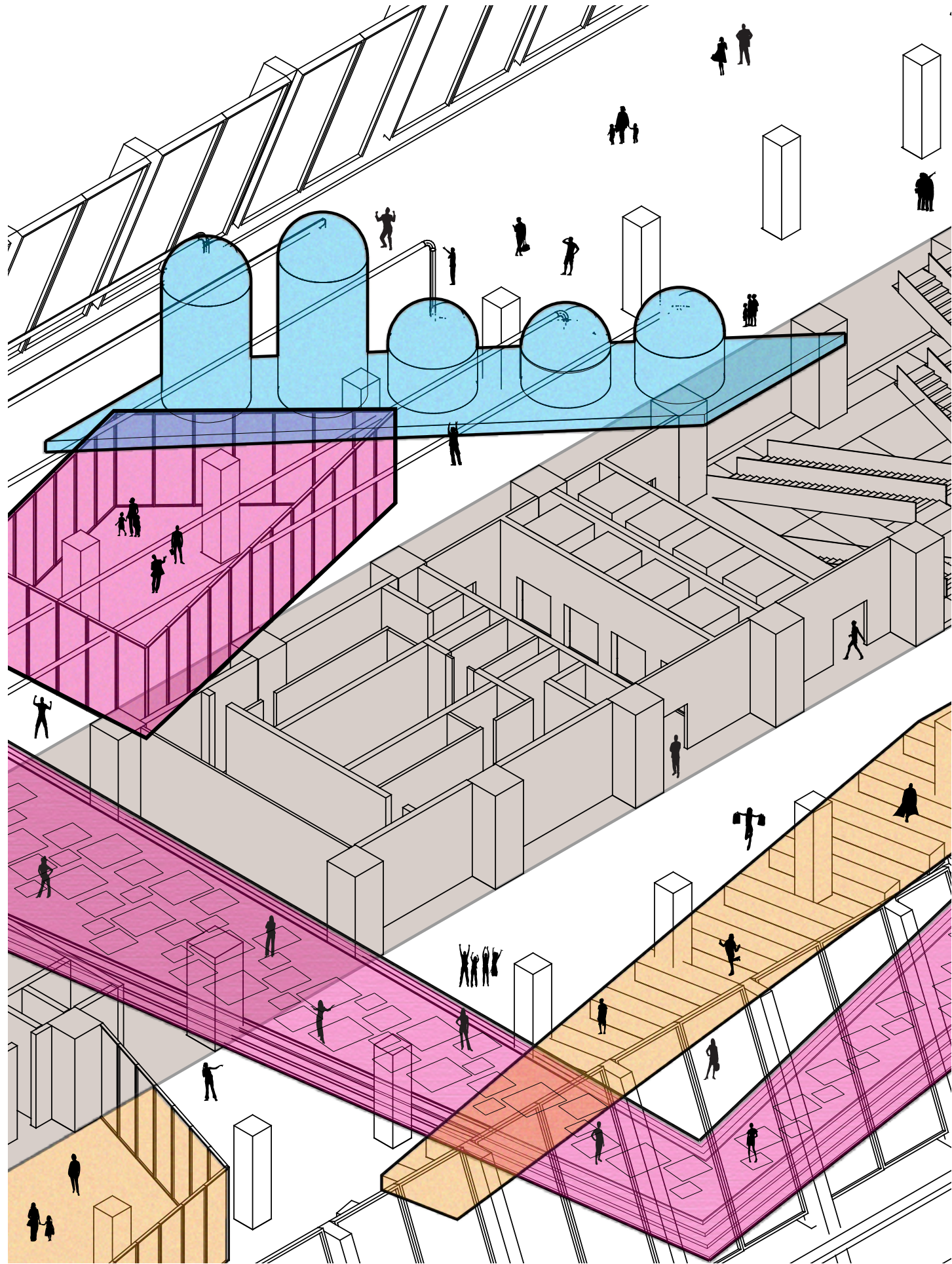
# SEOUL EXPRESS BUS TERMINAL

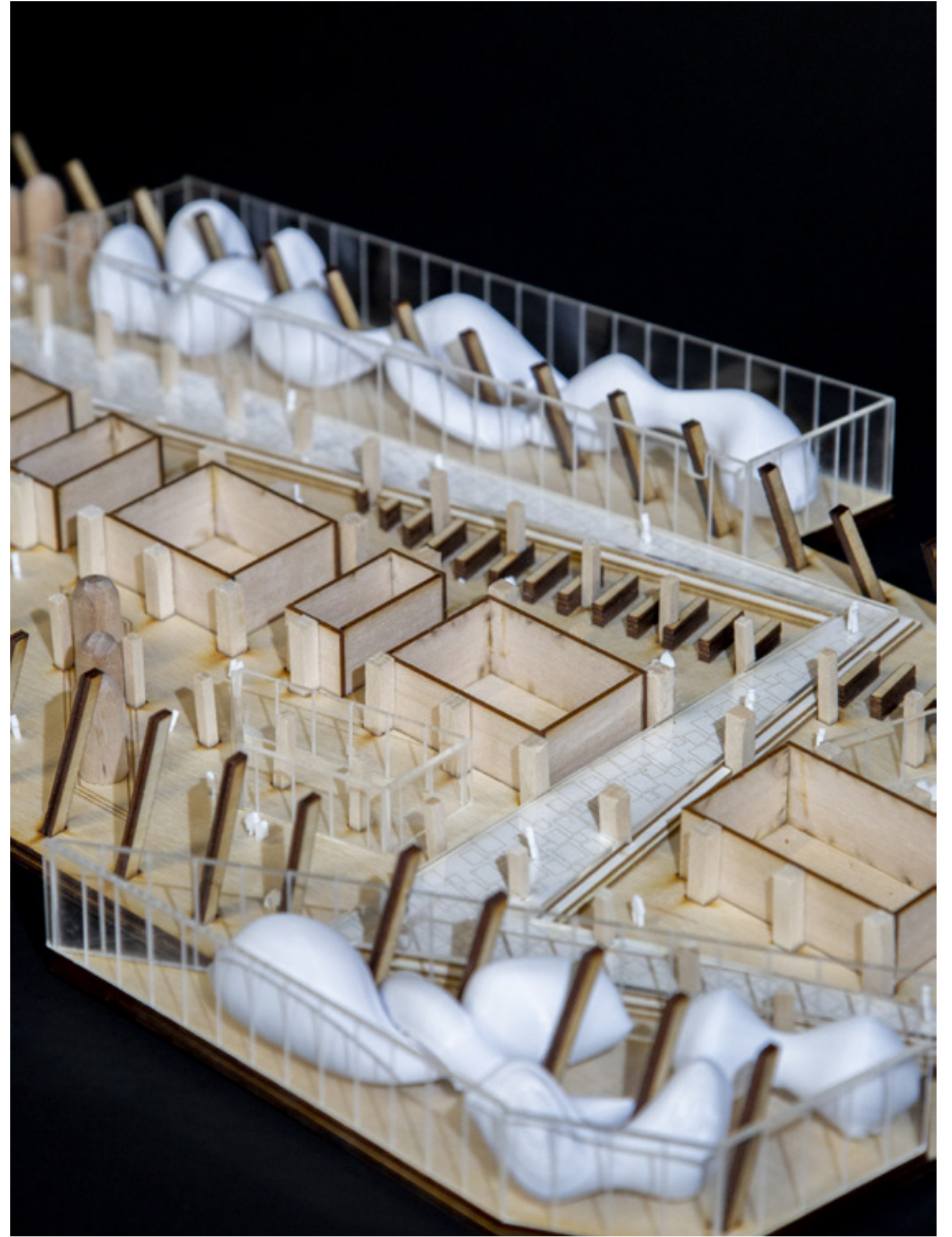
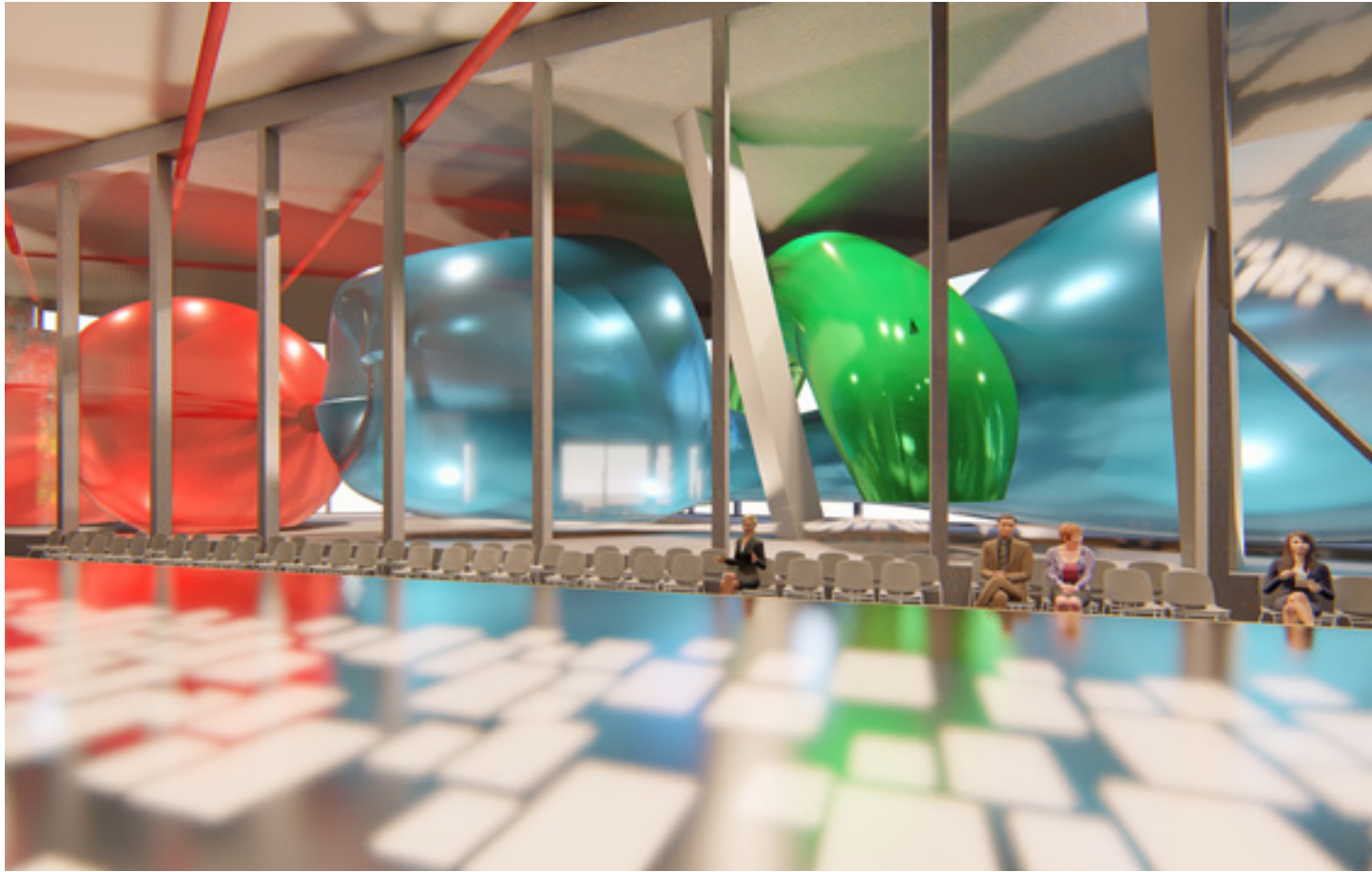


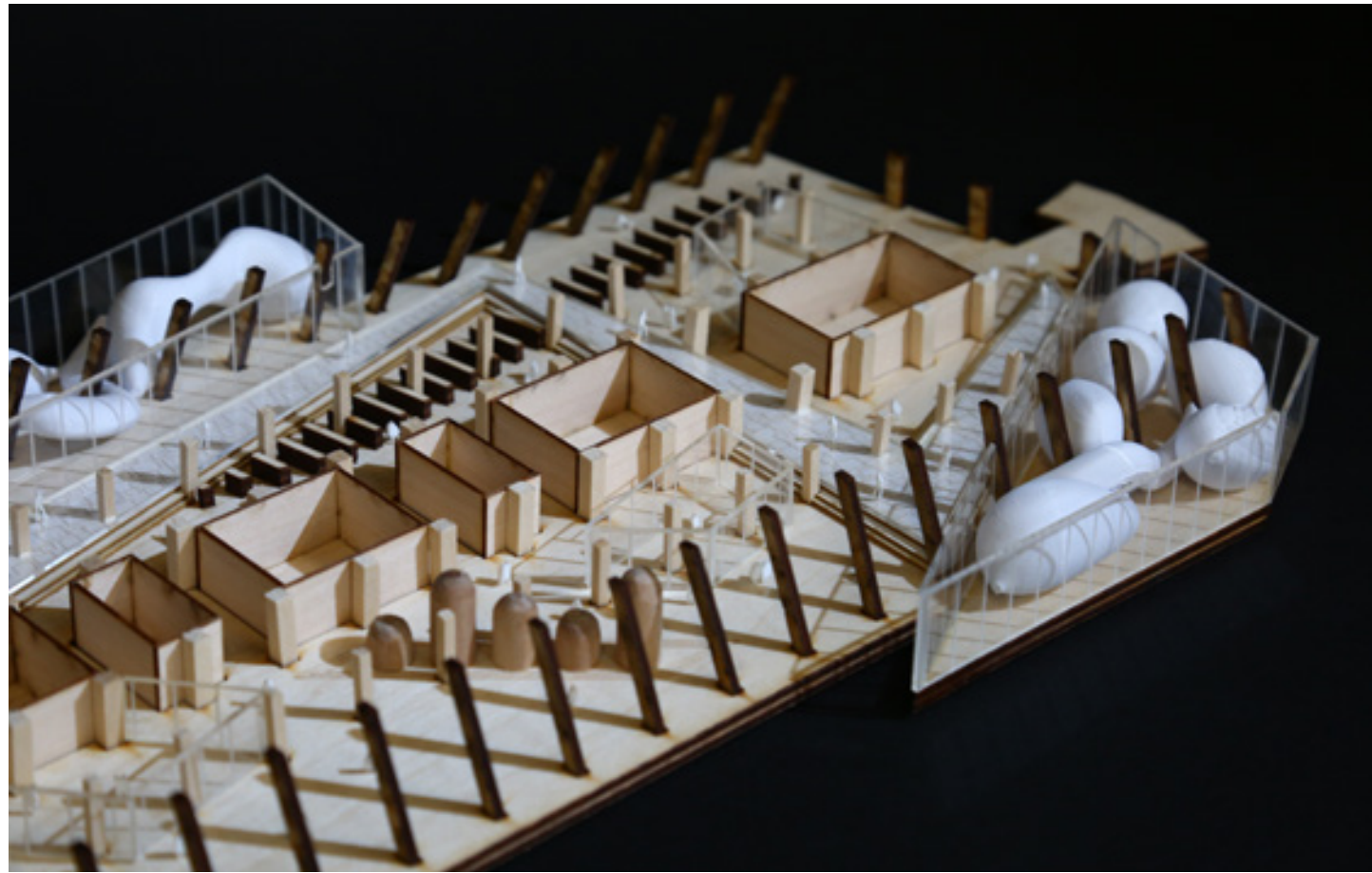


5th Floor Plan











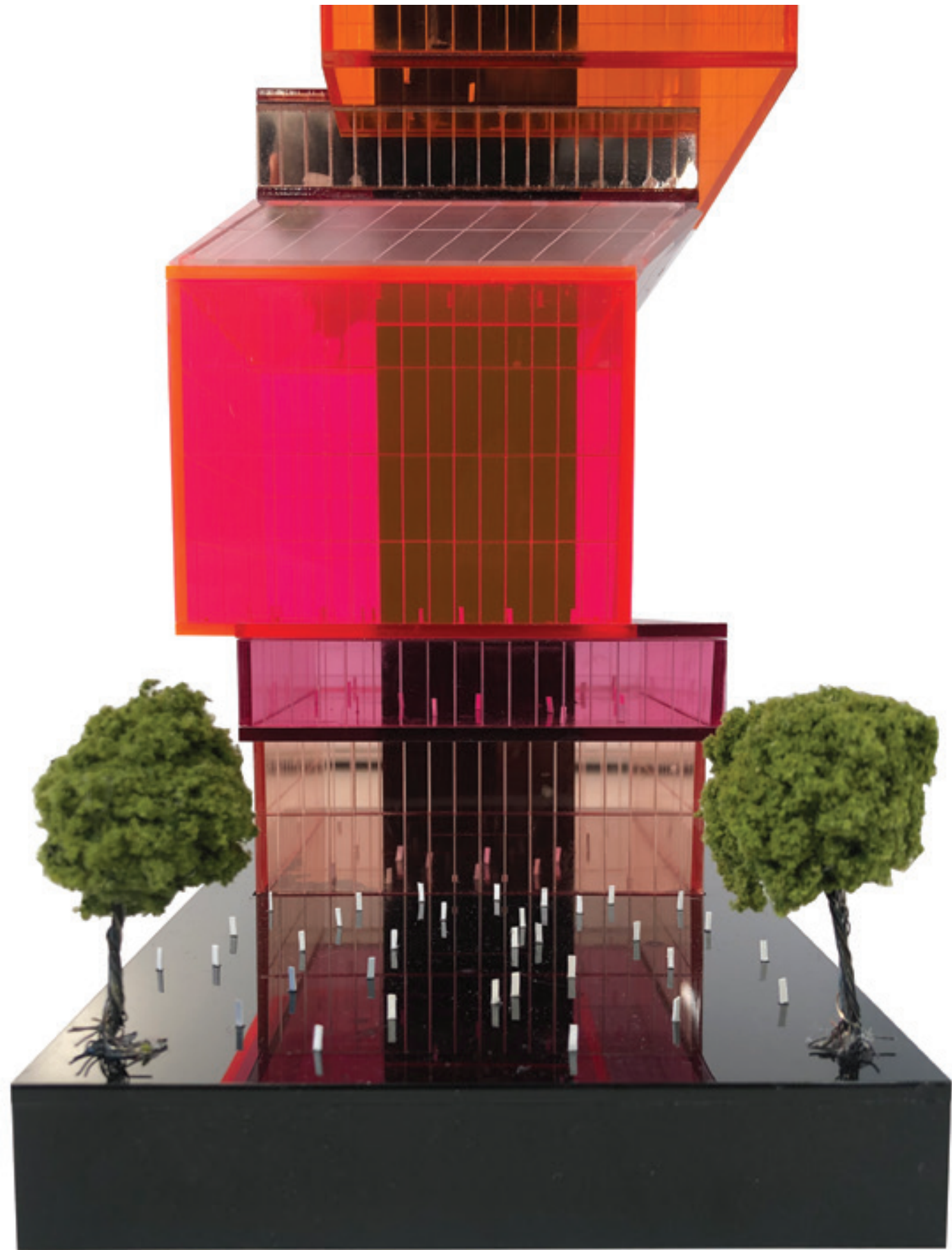


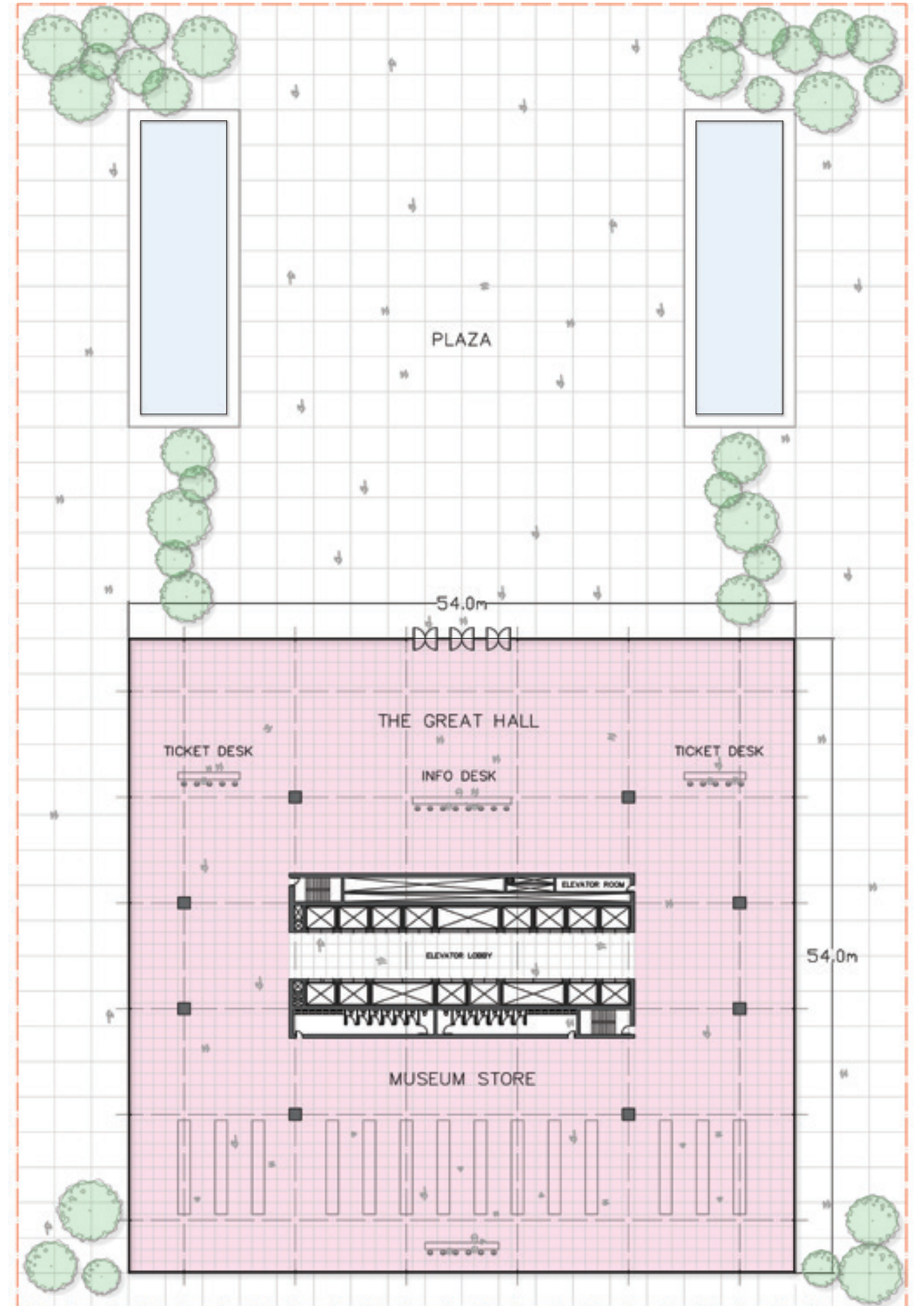
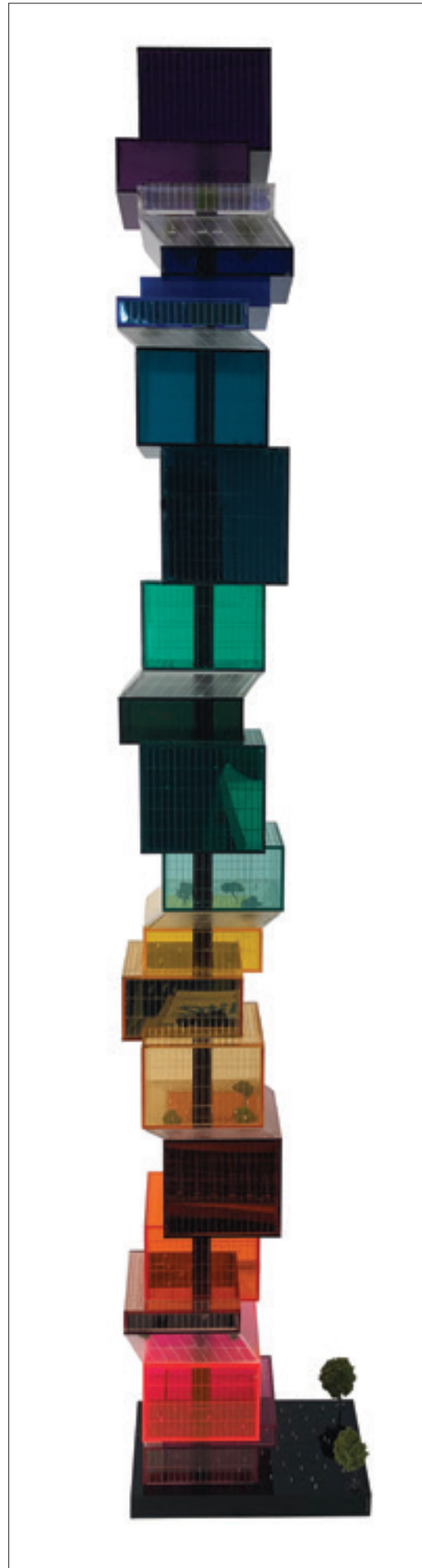
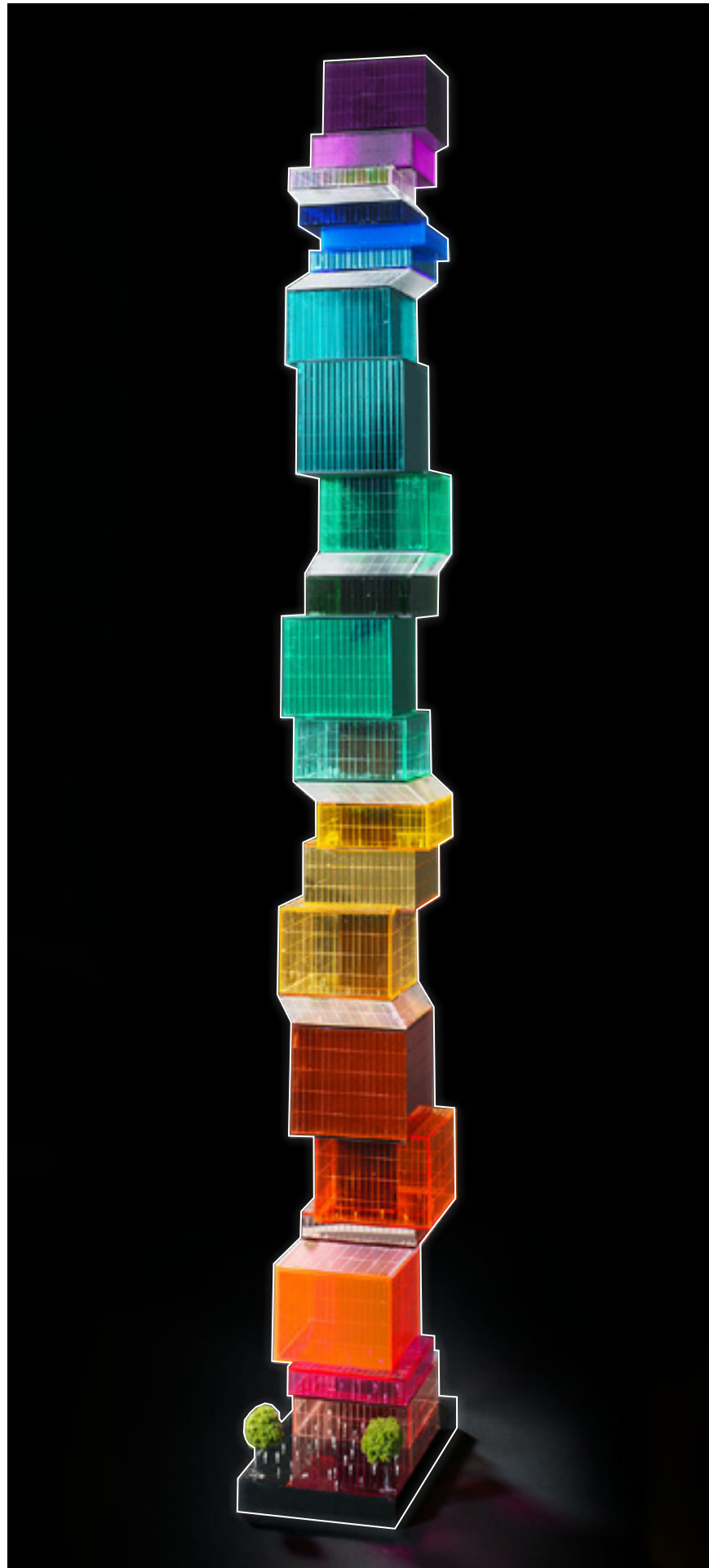
# SKYSCRAPER MUSEUM

Advanced Design Studio, Summer 2019  
Location: Hudson Yards, New York City  
Professor: Dan Wood

The Skyscraper Museum critically reimagines the architecture of an art museum as a vertical condition in the future. It questions the typologies of museums and skyscrapers and challenges the status quo while proposing innovative design strategies and envisioning an exciting future for a skyscraper art museum situated in a dense urban fabric such as the Hudson Yards. Using a 9x9-meter structural grid, this skyscraper occupies a 54x54-meter footprint at 2,916 m<sup>2</sup>, at an overall built-up area similar to the Museum's 200,000-square-meters. Twenty-one curatorial departments are stacked vertically in chronological order inside the skyscraper and separated by dynamic public spaces, sky plazas, and floating gardens. Ultimately, the Skyscraper Museum aims to become a beacon for the Big Apple and the world as New York City welcomes the next iconic architectural edifice.

**VERTICAL DENSITY / GOING UP!**





600M - TOP

## GALLERIES

EDUCATION

TEXTILE

OBSERVATION DECK

ARMS & ARMOR

AUDITORIUM

MUSICAL

PATRON'S LOUNGE

MODERN &  
CONTEMPORARY

## AMERICAN

EUROPEAN  
DECORATIVE  
ARTS

BALCONY LOUNGE

EUROPEAN PAINTINGS &  
SCULPTURE

## EUROPEAN

## ARABIAN

GARDEN

## MEDIEVAL

## AFRICAN

## GREEK & ROMAN

CAFETERIA

## ASIAN

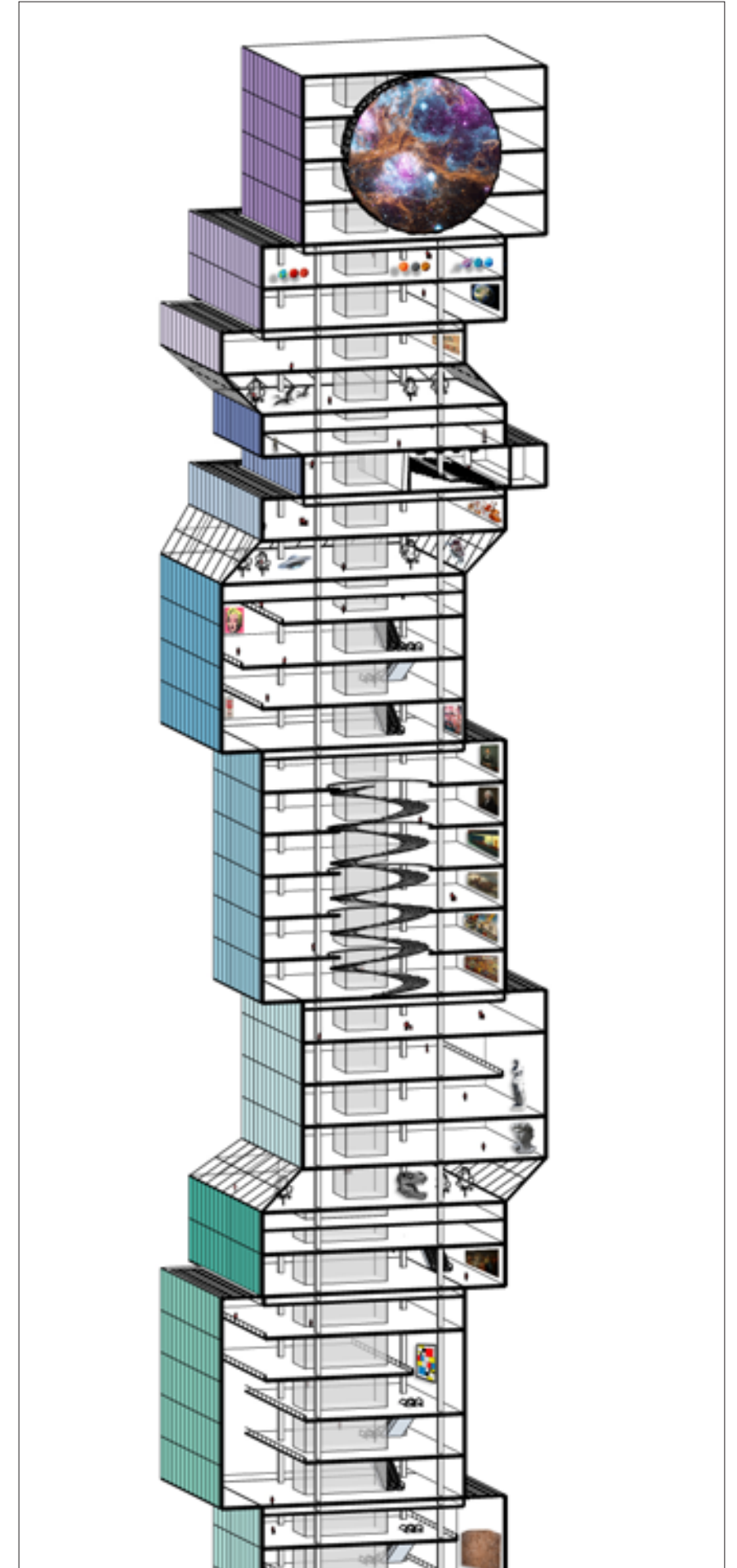
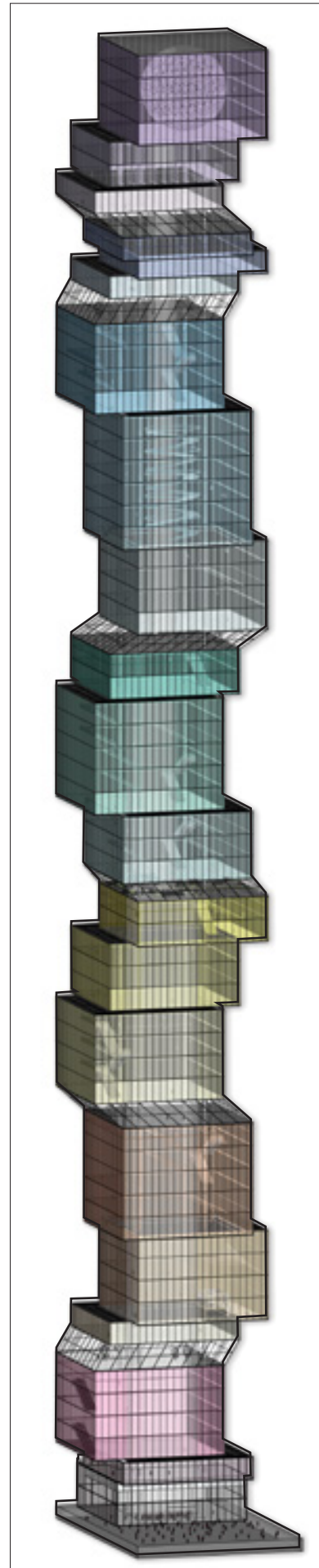
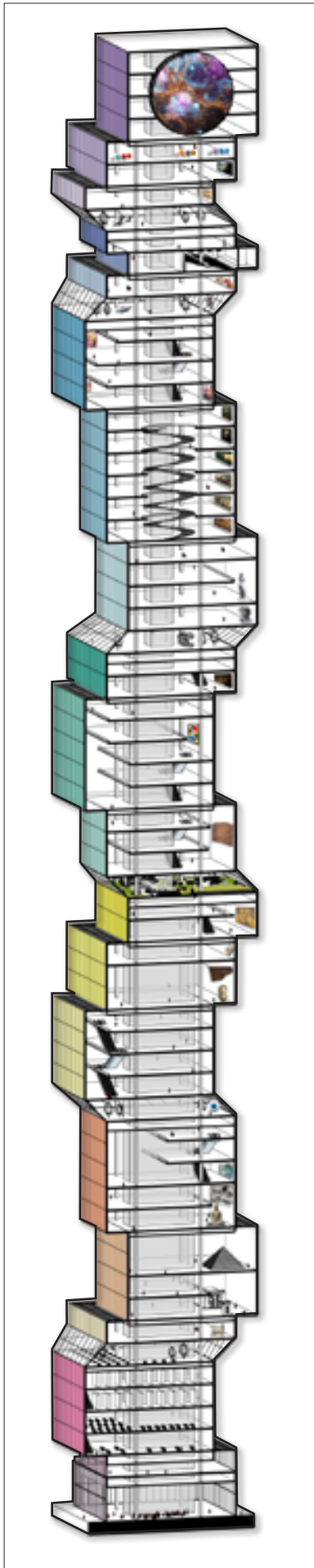
## EGYPTIAN

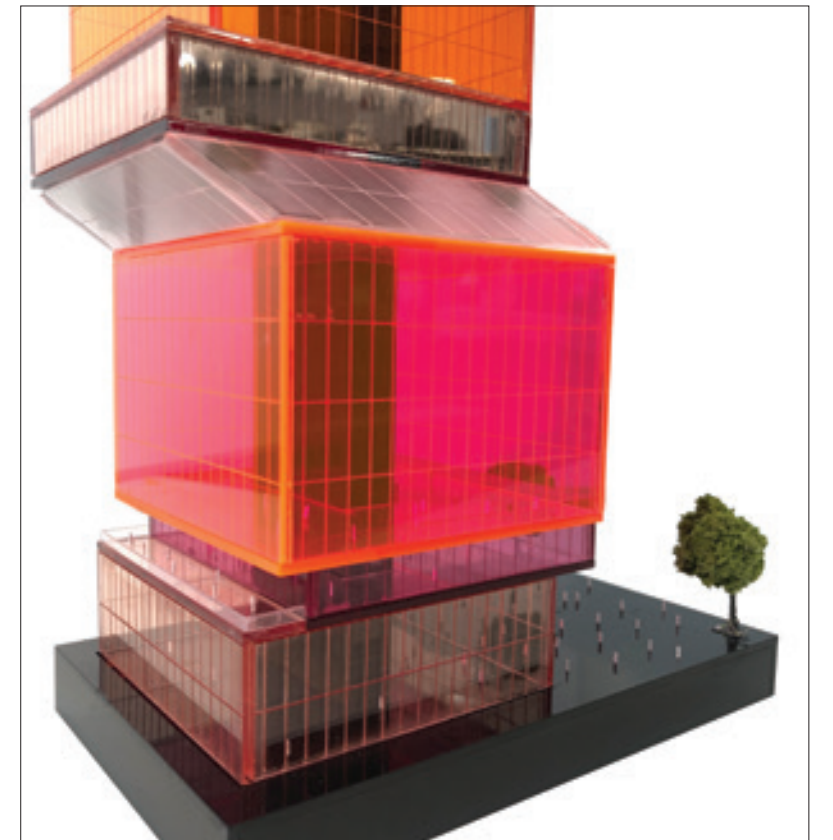
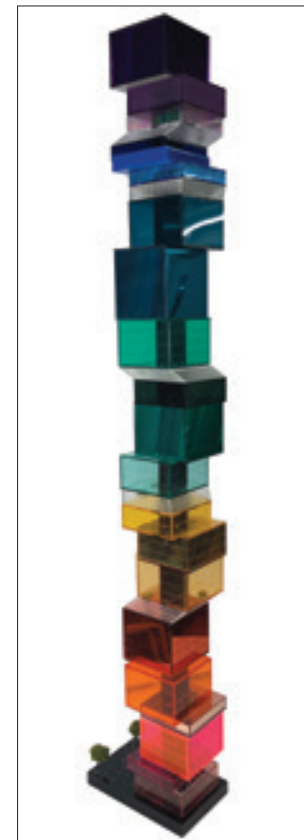
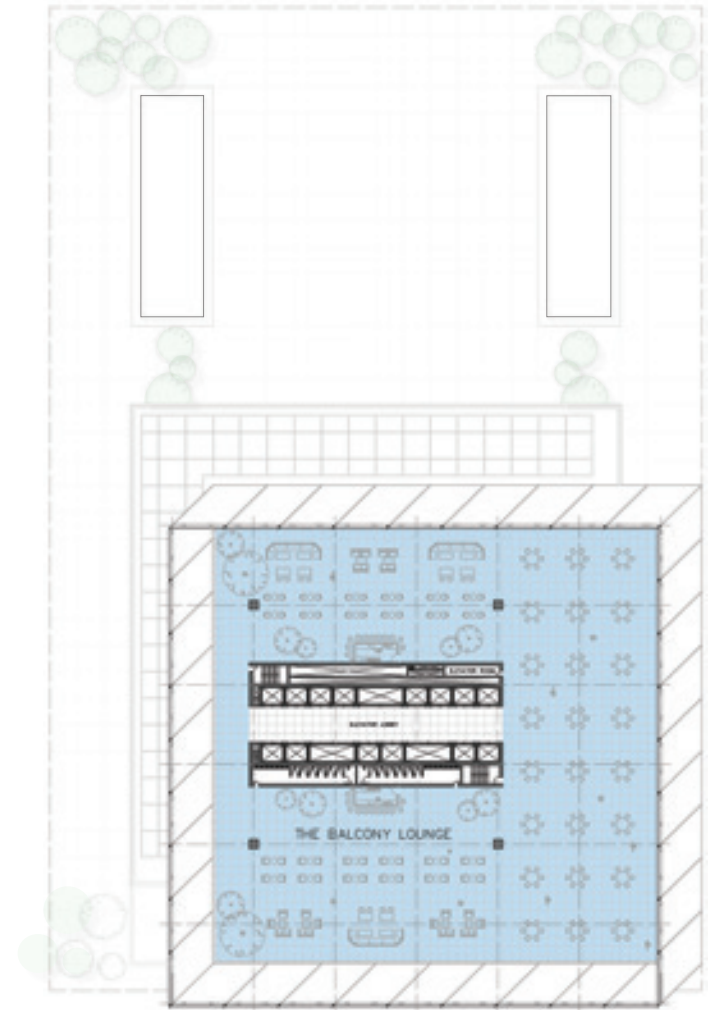
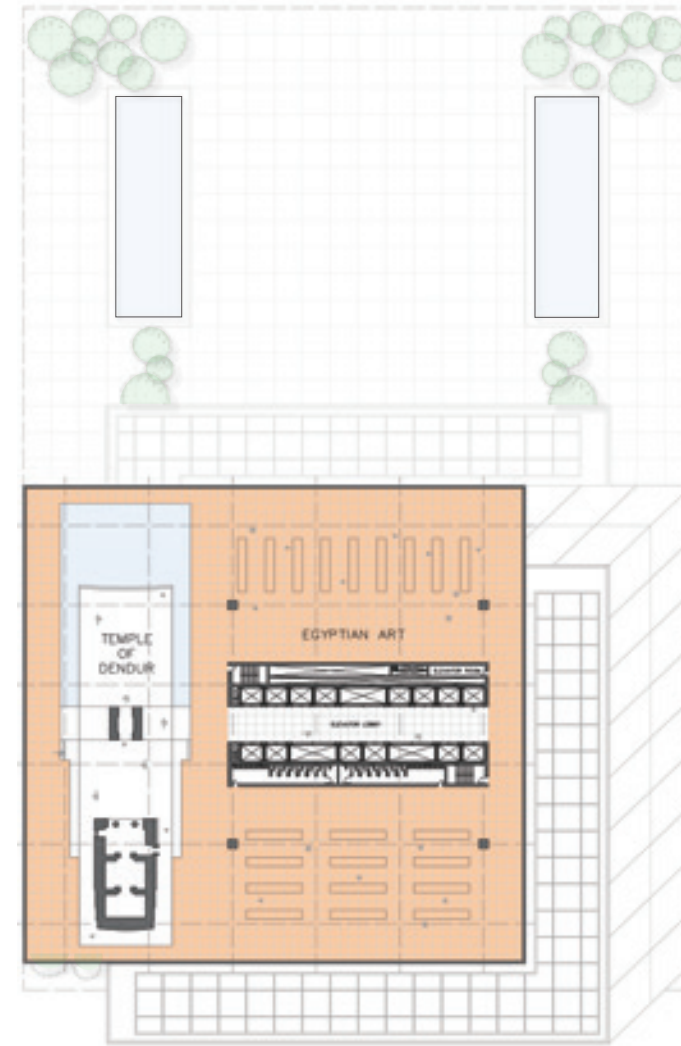
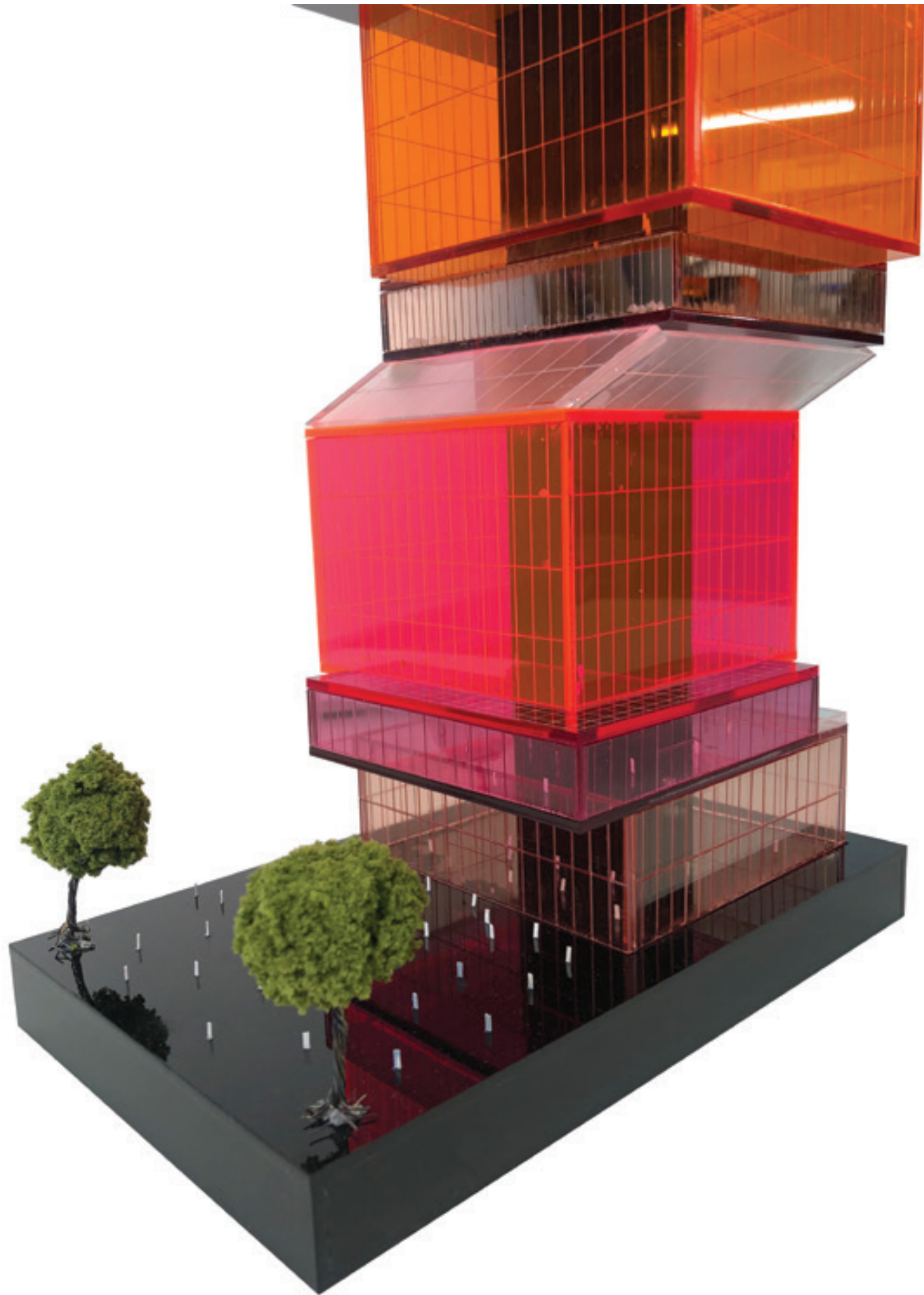
ANCIENT EASTERN  
BALCONY BAR

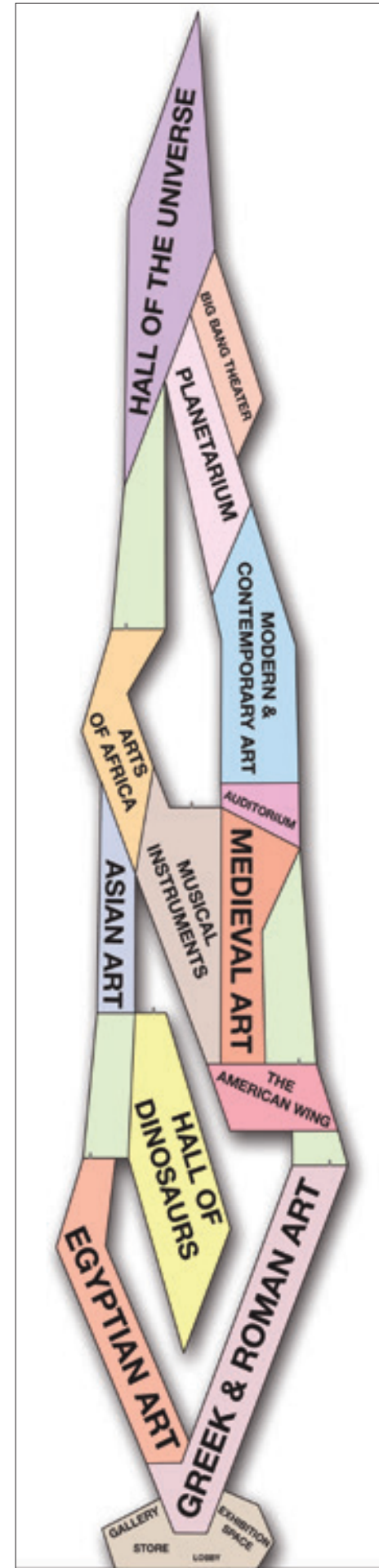
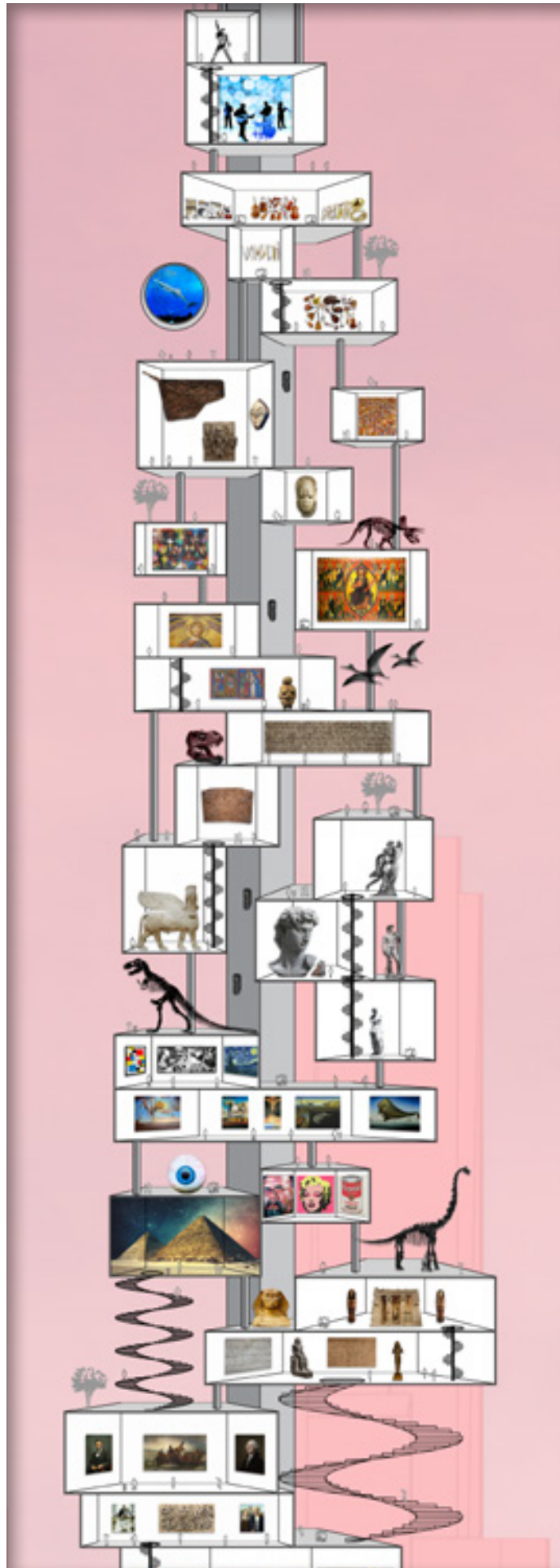
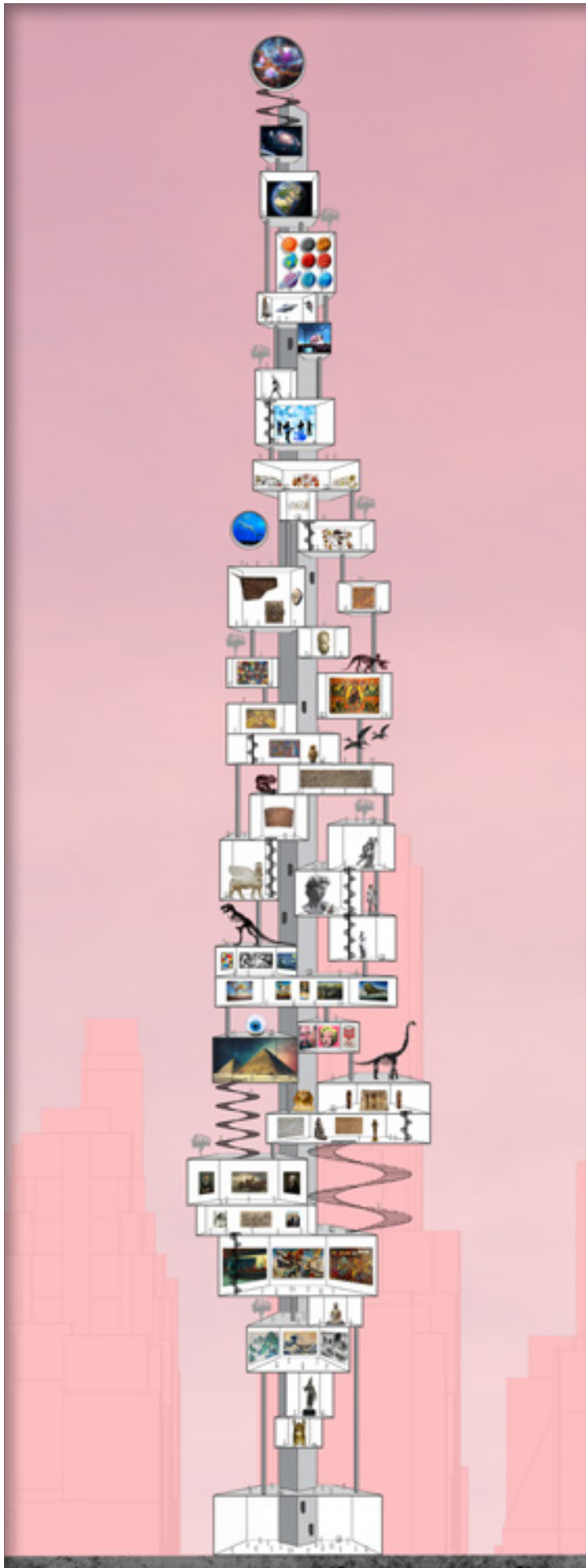
VISIBLE  
STORAGE

CAFE

GRAND HALL









# SKYSCRAPER STUDIES

Advanced Design Studio, Summer 2019  
Location: Hudson Yards, New York City  
Professor: Dan Wood

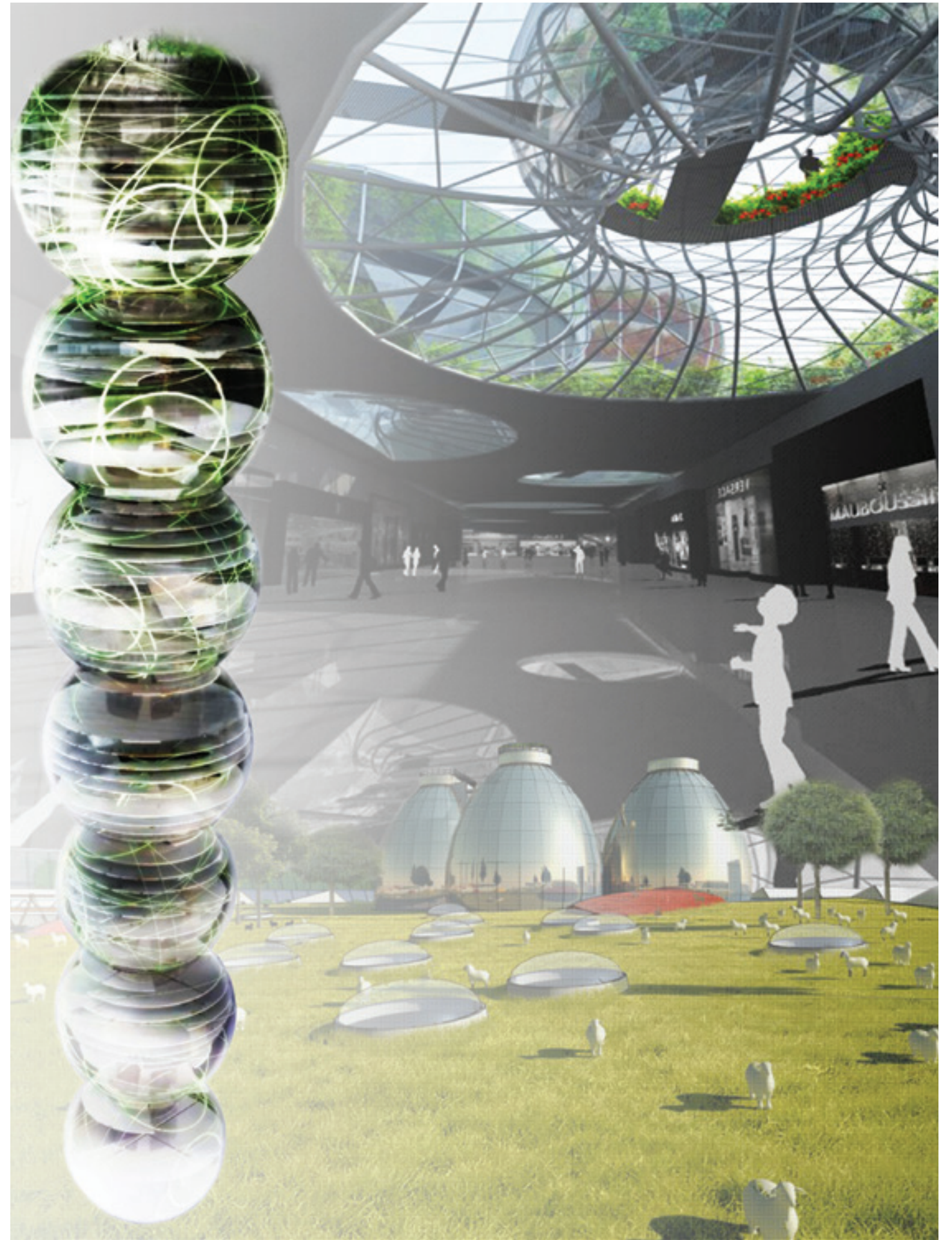
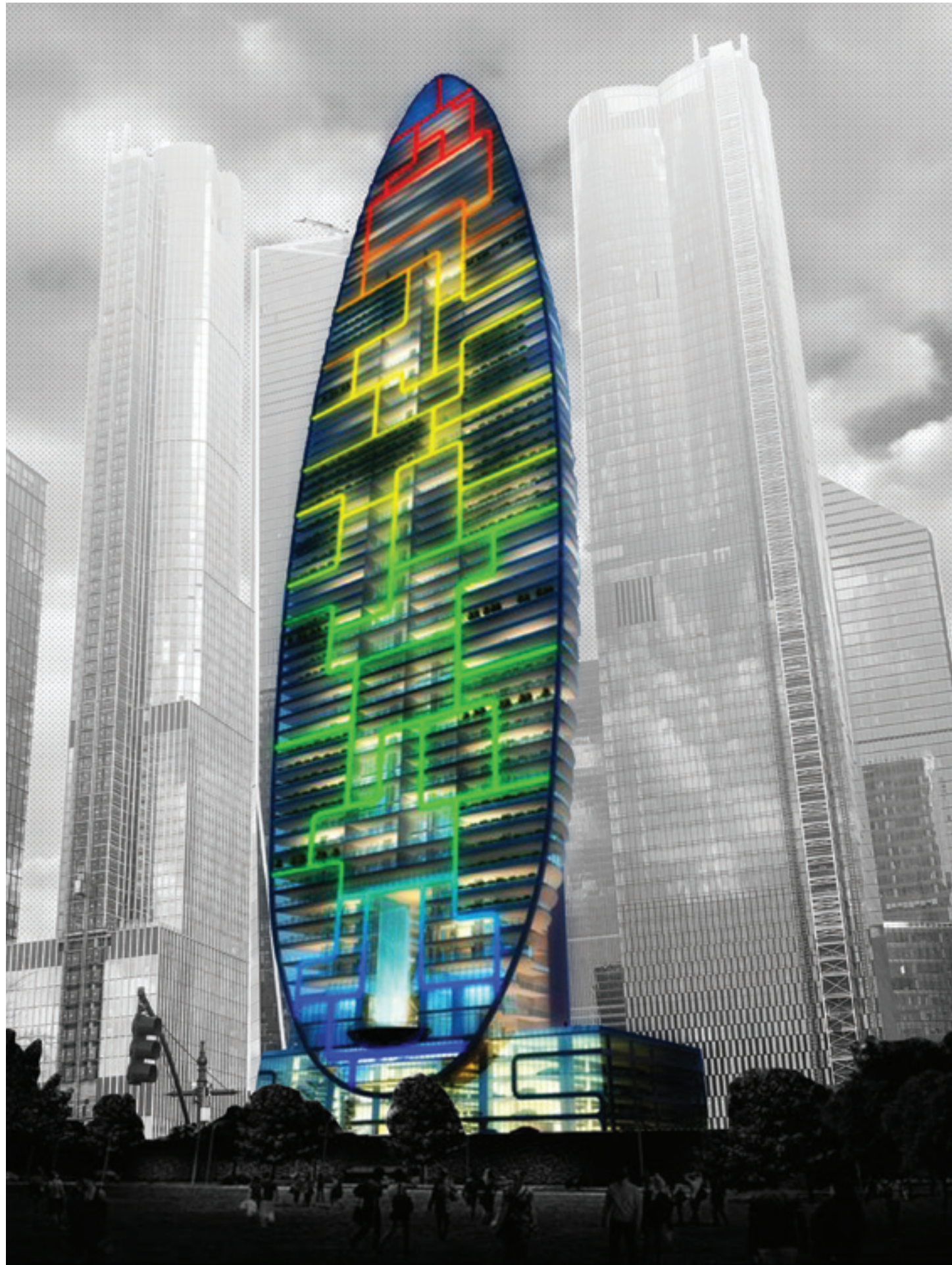
The semester started out by conducting a series of skyscraper studies regarding many aspect of the make-up of a skyscraper. Some of the aspects that the studio tackles were the following: 1. the Base, Top & Form. 2. Program. 3. Skin. 4. Structure. 5. the Mechanical Systems. Finally, the Core. The primary method in which all of these aspects of a skyscraper were probed was by way of composing collages. The overall research that went into these skyscraper studies culminated in the synthesis of the Skyscraper Dictionary which acted as a point of reference for all of the students of the Skyscraper Studio.

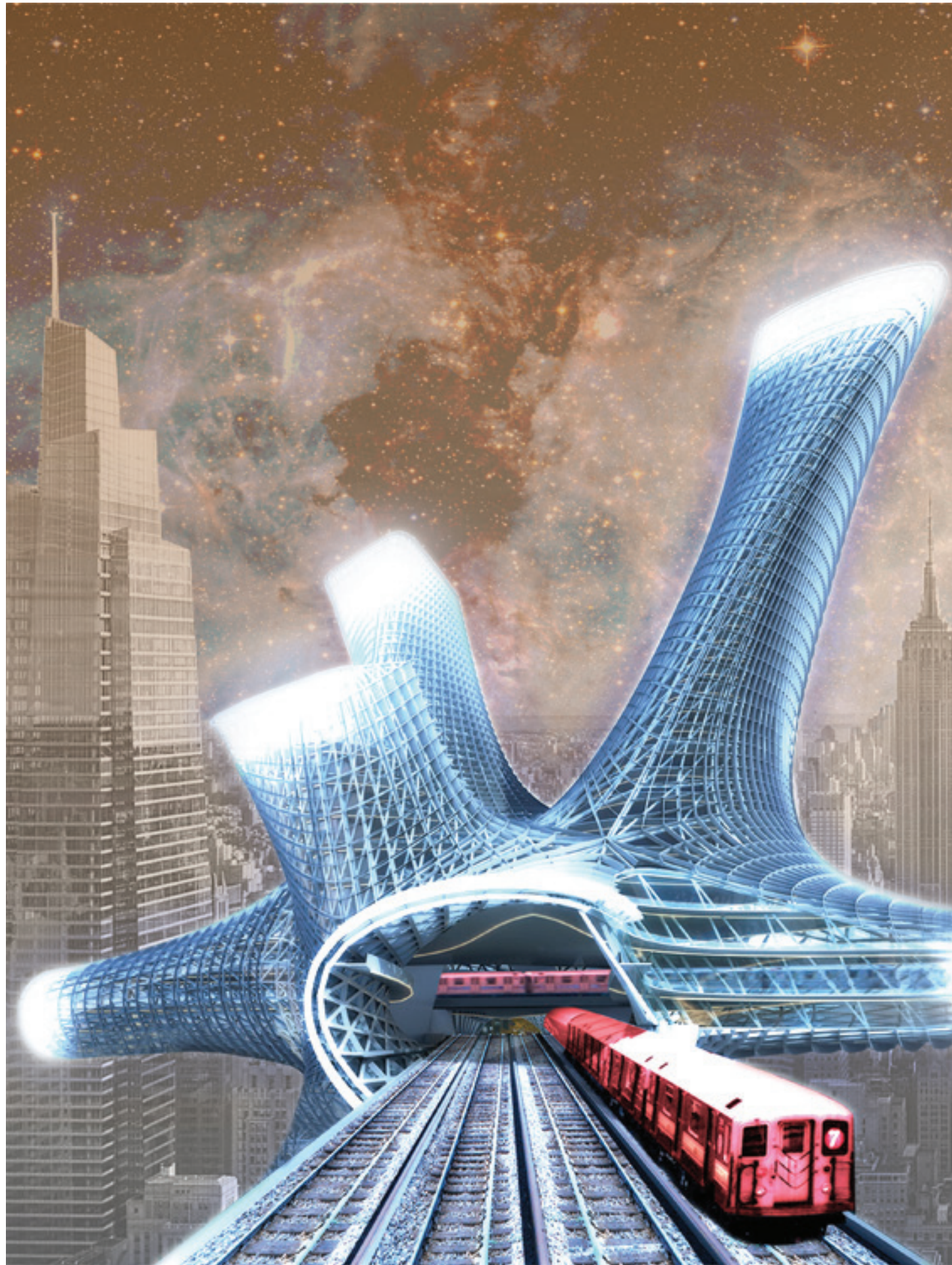
# SKYSCRAPER DICTIONARY

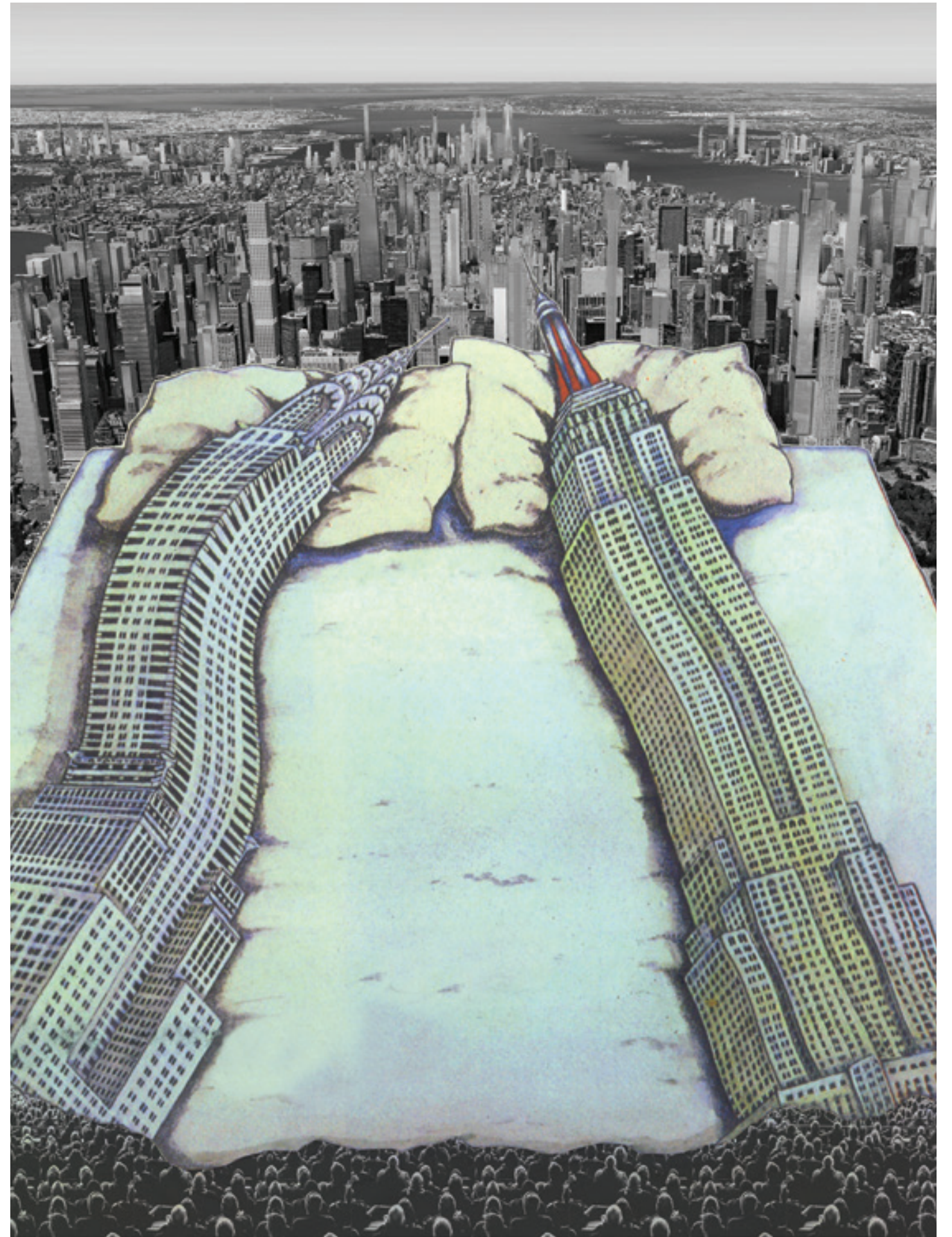












# MUQARNAS

Technology Elective, Spring 2020

Course: History in the Making

Professor: Rustam Mehta & Tal Schori

The Muqarnas is a form of ornamented vaulting in Islamic architecture. It is integral to the vernacular of Islamic buildings. This project investigates the historical techniques to surface embellishment in a contemporary architectural context regarding the Muqarnas. Numerous novel modular architectural constituents of the Muqarnas were generated for mass production. These architectural constituents were versatile, non-structural, low-relief three dimensional modules suitable to serial production as castings or extrusions. The three most important factors that went into these Muqarnas investigations were the strategy, prototype design, and material sustainability.

# HISTORY IN THE MAKING

