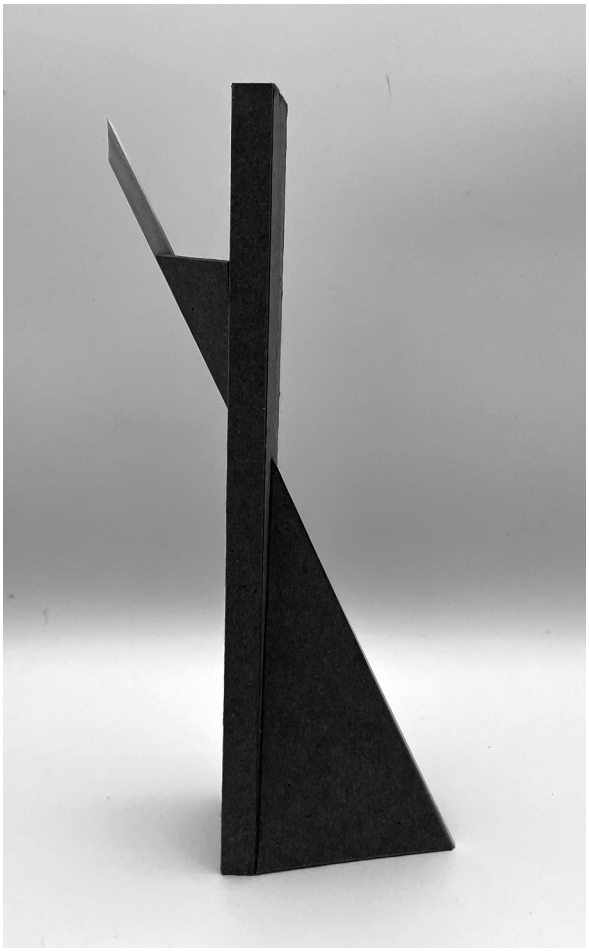


Calvin Glomb

Architecture Portfolio 2023
College of Architecture, University of Nebraska-Lincoln

OCEAN PARK NO. 43

Art by Ricard Diebenkorn

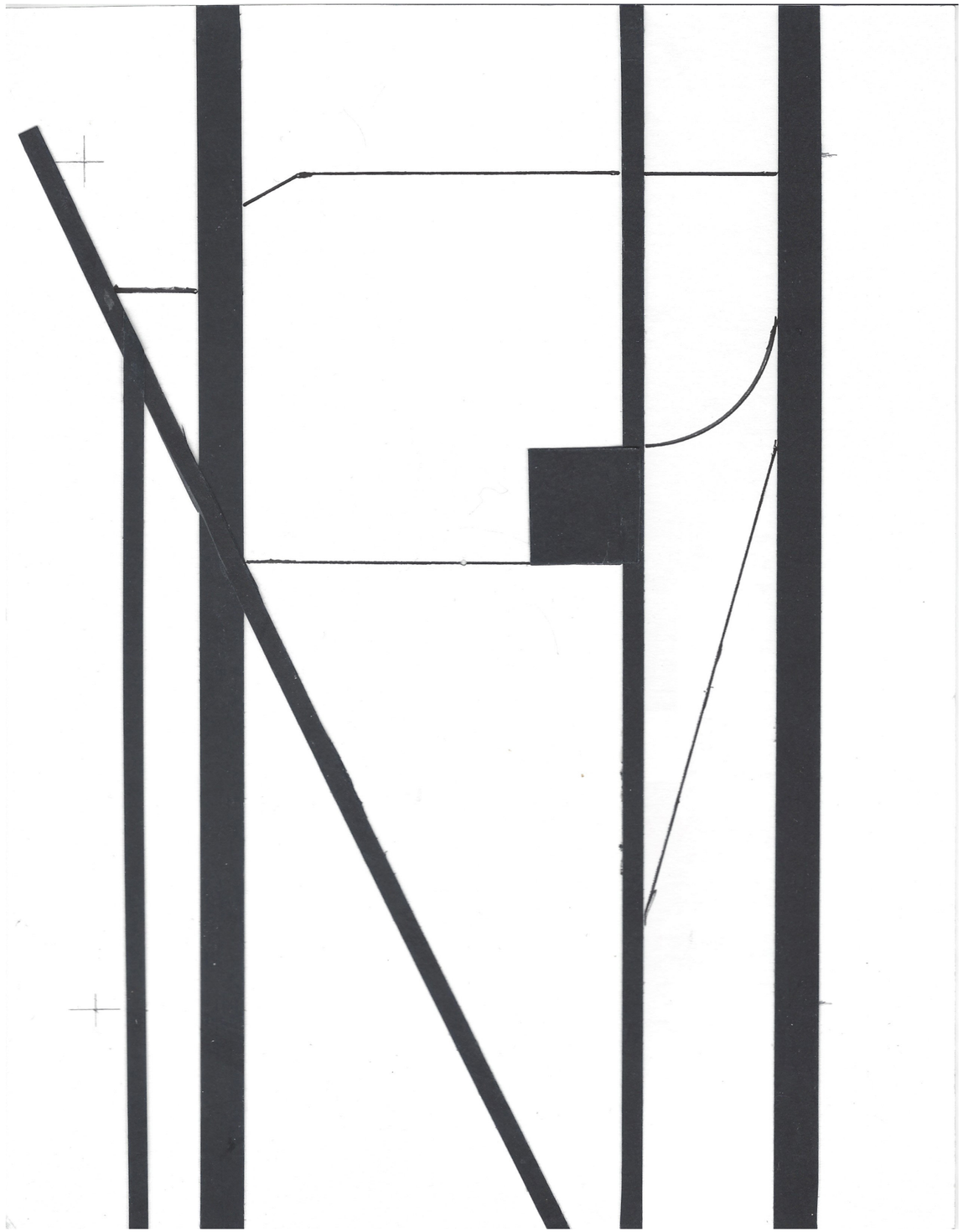
The project is focused on exploring various methods for analyzing, interpreting, and ultimately redesigning a work of art using 3-D line and 3-D plane models. The project uses Richard Diebenkorn's Ocean Park series 43 to transform the original painting from compositional analysis to a 2-D line model and, ultimately, into a 3-D line and 3-D plane model.

The first step in this process involved extracting the guiding principles of the original painting and creating compositional strategies based on those principles. These strategies were then developed into a 2-D arrangement using black cardstock on a white mat board.

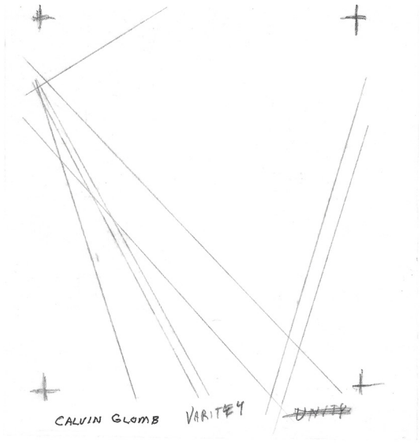
Next, the project focused on translating the 2-D composition into a 3-D line construction, capturing the essence of the original painting in a new, three-dimensional form, and creating a 3-D model that conveyed the structure and composition of the artwork in a more tangible and immersive way.

Finally, in the last step of the project, planes were added as part of a new model, creating spatial conditions in 3-D that further expanded on the original composition. The project aims to gain new insights into how art can be understood and represented in three-dimensional space by analyzing, interpreting, and redesigning the original work.

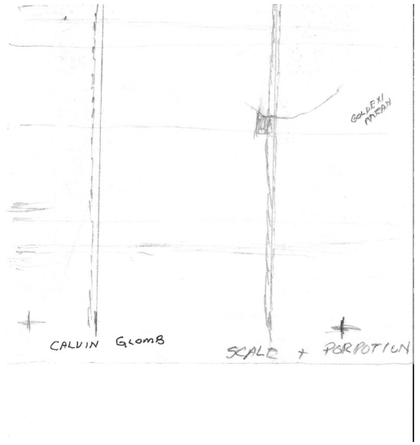
Richard Diebenkorn, Ocean Park no. 43



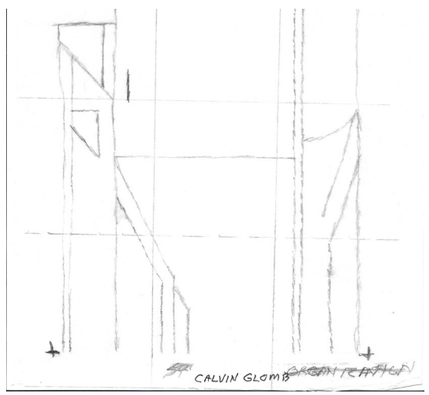
2-D Line Model



Variety



Scale and Proportion



Structure and Order

OCEAN PARK NO. 43

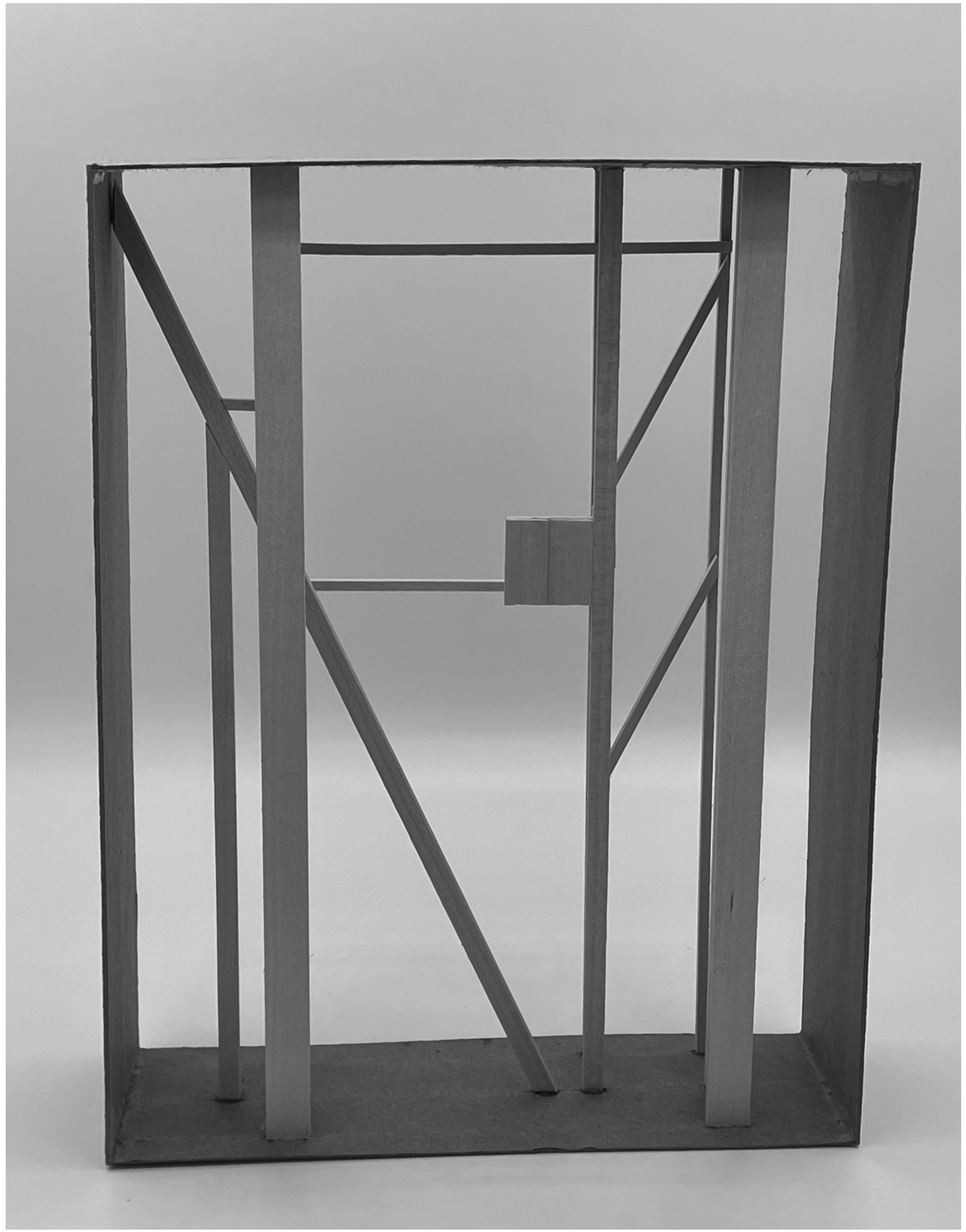
Formal Analysis

The painting is a masterful example of unity, variety, structure, and order in a composition using different elements of line, white space, and grid structures. One of the critical factors in achieving unity is the use of line direction. Throughout the painting, the artist uses lines that flow in a consistent approach, which helps to guide the viewer's eye around the composition and create a sense of harmony.

In addition to line direction, parallel lines also contribute to the painting's unity. By repeating lines similarly, the artist has created a sense of rhythm and pattern that helps to tie the different elements of the composition together. At the same time, the artist has also introduced variety through the use of varying line widths and orientations. This variety helps to break up the repetition and create visual interest.

The painting relies on a collection of white space to achieve structure and order. Within this white space, the artist has used lines with three distinct line widths and a parallel grid structure known as the Golden Mean. This grid structure, which uses 32 reference lines, creates a sense of order and structure that helps to support the overall composition. By leaving large areas of the canvas empty, the artist has made sense of balance and symmetry that helps to anchor the piece.

The painting also uses asymmetrical balance by placing the focal point off-center from the middle of the picture and creating a sense of tension and interest that draws the viewer's eye around the composition. Contrast is also achieved through the use of various line widths and directions. The difference between thick and thin lines and the distinction between horizontal and vertical lines help to create visual interest and depth within the composition.



3-D Line Model

3-D Line Model Design Sketches

3-D Line Model, different view

OCEAN PARK NO. 43

3-D Line Model

Translating the black-and-white 2-D study into a 3-D line model required focusing on three key elements: unity, variety, and emphasis. The analysis of Diebenkorn's work revealed that the curve was the most vital component of the painting and that the focal point was near the center of the picture. The 8 x 8 grid was kept as a reference point throughout the translation process to maintain scale and proportion.

One of the fundamental discoveries made during the sketching phase of the project was that the emphasis should be on the triangle in the foreground. The triangle was made the thickest line weight in the composition to achieve this emphasis and helped to draw the viewer's eye to the foreground and create a sense of depth within the overall design.

The next step in the translation process involved introducing a second variety point in the middle ground, which helped to break up the repetition of horizontal lines and create visual interest. A couple of vertical pieces were added to this section of the composition to maintain unity and variety.

The translation process involved applying the same principles to the background of the composition. Through this process of analyzing and interpreting Diebenkorn's work, the project was able to create a 3-D line model that maintained the essence of the original composition while introducing new elements of emphasis and variety. Two horizontal and one vertical lines were added to create unity and variety and help balance the overall design.

OCEAN PARK NO. 43

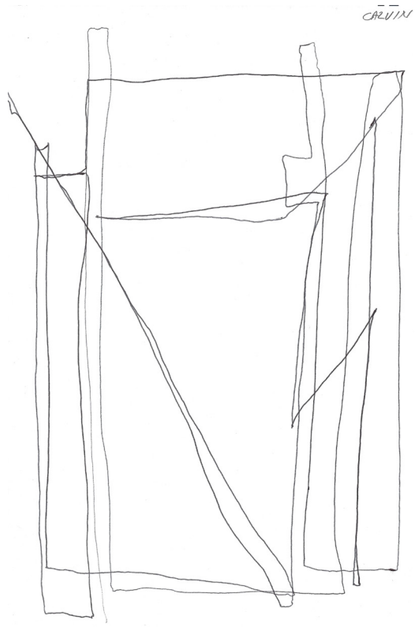
3-D Plane Model

Creating the final product involved several steps, beginning with a technique called "Blind Contour" drawing. It involved looking at the 3-D line model and recreating it on paper without looking at the drawing itself. This technique allowed the team to see the planes on the 3-D plane model and better understand the overall composition.

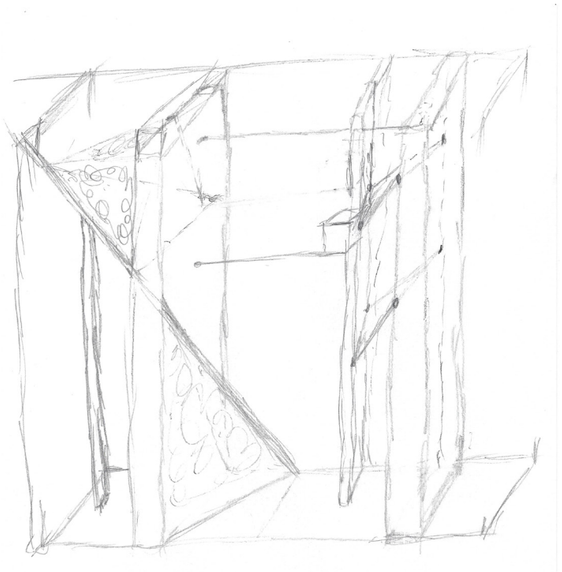
After completing the Blind Contour drawing, the team created a prototype to test different construction techniques and compositions. This prototype was reviewed by design experts, who provided feedback on areas that could be improved or changed. Based on this feedback, several changes were made to the design, including using basswood to create the vertical pieces, enclosing the triangles, and incorporating a floating box as the focal point.

Using basswood to create the vertical pieces helped add stability and durability to the overall structure, while enclosing the triangles added depth and complexity to the composition. The floating box as the focal point helped draw the viewer's eye to the center of the piece and create a sense of tension and interest.

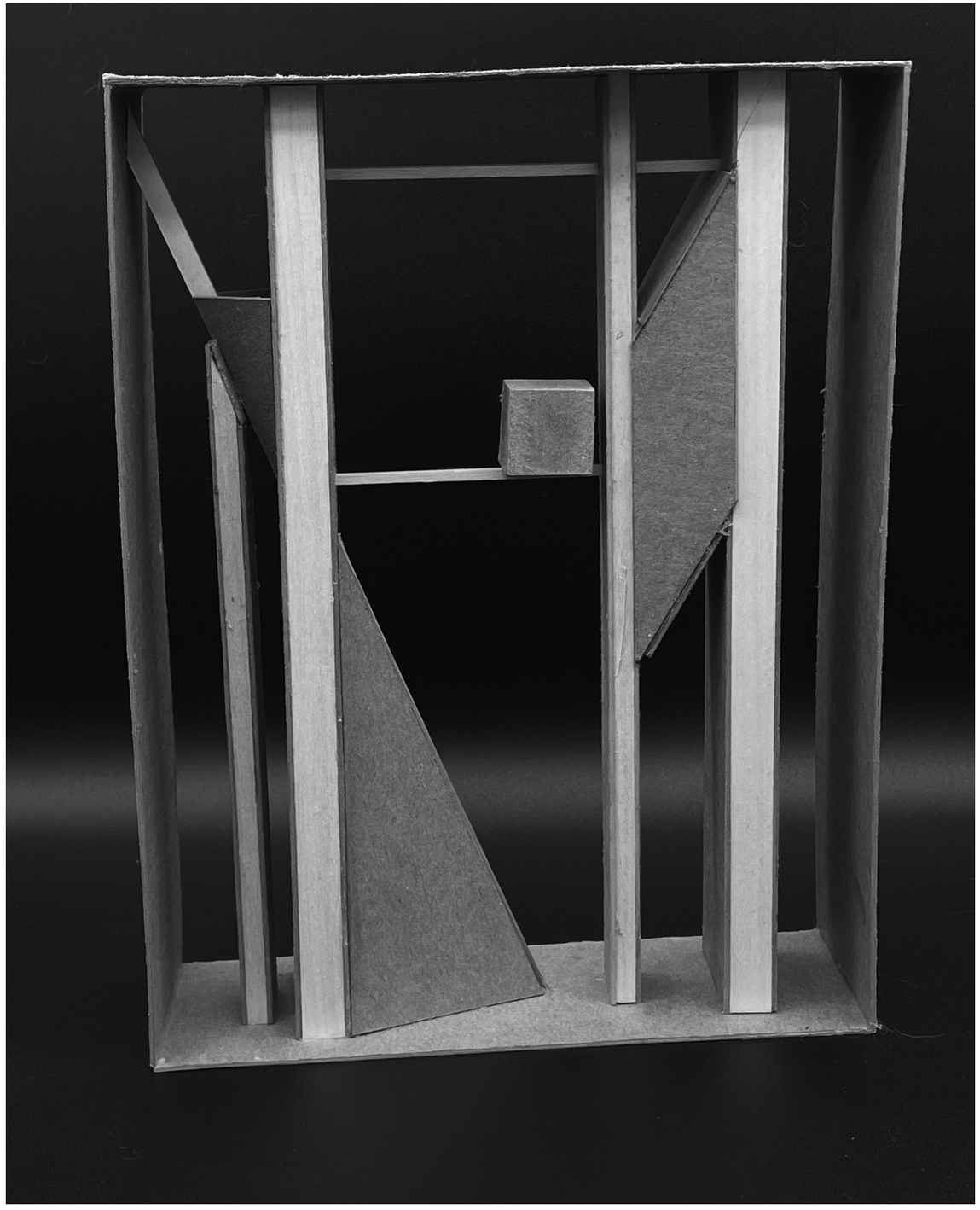
The team worked closely with design experts throughout the process to ensure the final product was structurally sound and visually appealing. The final 3-D plane model achieved unity, variety, and emphasis while staying true to the original principles and elements of Richard Diebenkorn's Ocean Park series 43.



Blind Contour Drawing

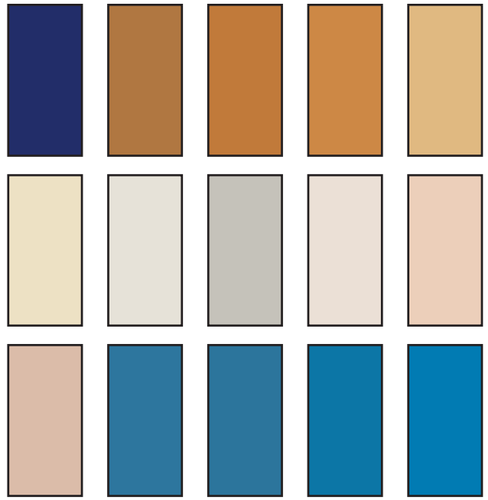


3-D Plane Model Sketch

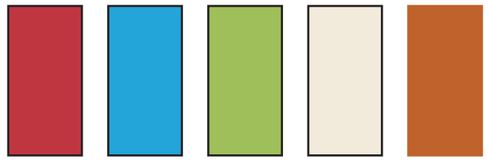


3-D Plane Model

Richard Diebenkorn, Ocean Park no. 43



Color Swatches



Color Harmony

Proporrtion and Intensity

OCEAN PARK NO. 43

Color Analysis

The painting's use of muted primary colors is intentional and creates a specific effect. By toning down the primary colors, the artist can use them subtly, providing balance and rhythm within the composition. The muted primary colors can also sense depth and atmosphere, suggesting a more subdued or subdued environment. It is particularly important in a painting with multiple elements or areas, as it helps to tie everything together and create a cohesive whole.

Color swatches are a valuable tool for analyzing the color palette of a painting. By isolating the colors used in different image areas, we can identify patterns and relationships that might not be immediately apparent, help us understand the artist's intentions and message, and appreciate the specific color scheme used. For example, we might notice that specific colors are used more frequently or in particular areas of the painting, indicating their importance or significance.

Color harmony is an essential aspect of color composition in art. By using different color schemes, such as complementary or analogous colors, the artist can create a sense of unity and coherence within the painting. When combined effectively, they create a pleasing visual effect that contributes to the overall impact of the image. A color wheel helps identify the specific color scheme used in a painting and understand how it contributes to the overall effect.

Visual weight is an essential consideration in the use of color within a painting. It refers to the composition's relative importance or impact of different colors. Visual weight effectively creates depth and movement within an image and draws the viewer's attention to specific elements or areas. Harmony and intensity can be achieved by using lighter or more muted colors in less essential areas and brighter or more saturated colors in focal points or areas of importance. Using a color gradient, the artist can guide the viewer's eye through the artwork and create a sense of proportion and balance.

Vasily Kandinsky, Soft Pressure, 1931

Soft Pressure

Design Intention

This design will create a visually stunning and functional representation of a star system, with the monolith as the central hub and the surrounding cube providing multiple viewing perspectives. The wall of gases supporting the monolith will add an interesting visual contrast and dynamic eff ect to the overall design.

The cube's walls will have various windows cut into them, providing diff erent views of the star system. The star system will be designed with cohesive aesthetic language to achieve unity, with each planet and celestial body sharing common design elements.

The monolith will float in the cube's center, suspended in space and not physically attached to any supporting structure. While it will not have windows, it will serve as a central hub for exploring and studying the star system.

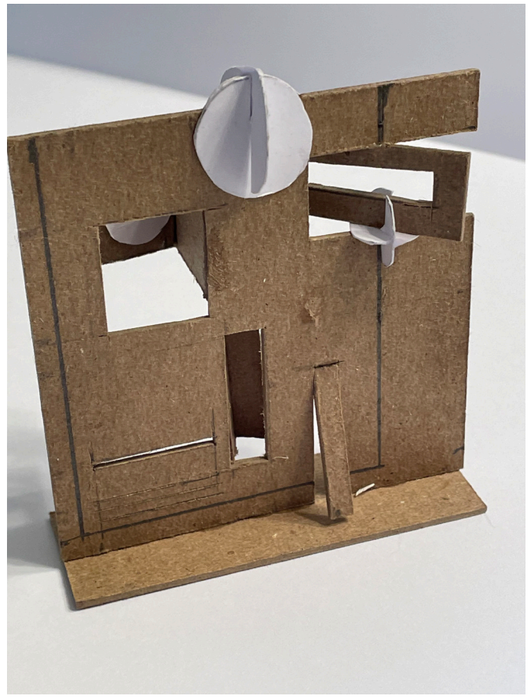
This design will be aesthetically pleasing and functional, providing an immersive experience for viewers to explore and study the star system.

The monolith and the surrounding cube, with its wall of gases, will serve as a stunning centerpiece for the design. In contrast, the cohesive design language of the star system will create a sense of unity and harmony in the overall presentation.

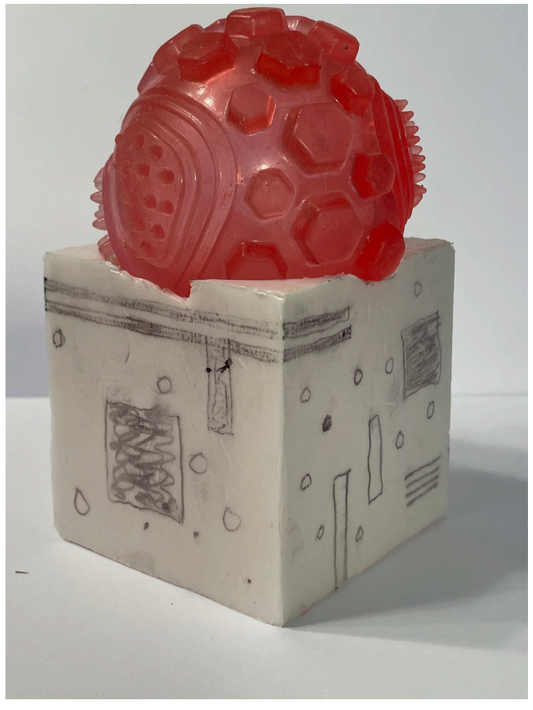
Soft Pressure

Process

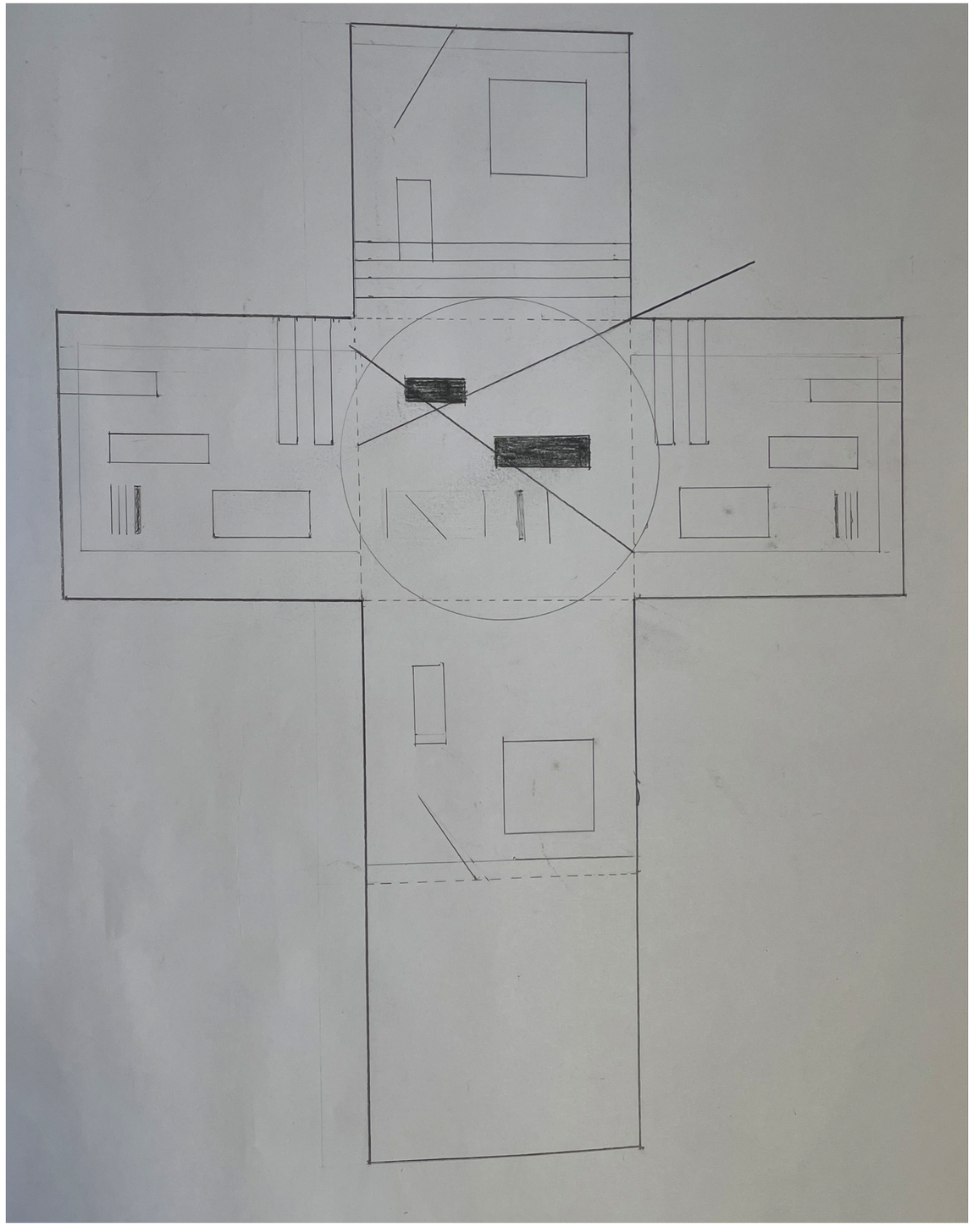
The ventilation project involved creating a 3D object based on Vasily Kandinsky's painting, "Soft Pressure." A 2D drawing of the painting was made with three layers, followed by a 3D object, two versions of which were appraised. The object was created by flattening the painting into a crucifix drawing, then making a 3-inch cube out of foam core. The two sides of the cube were then connected to create a more complete 3D model. Finally, a 6-inch cube was created for more detailed design exploration.The project explored the intersection of art and technology.object, including the interior and exterior of the cube. This additional detail could be particularly useful in architecture or product design, where a detailed and realistic 3D model is necessary for planning and production.



3D representation

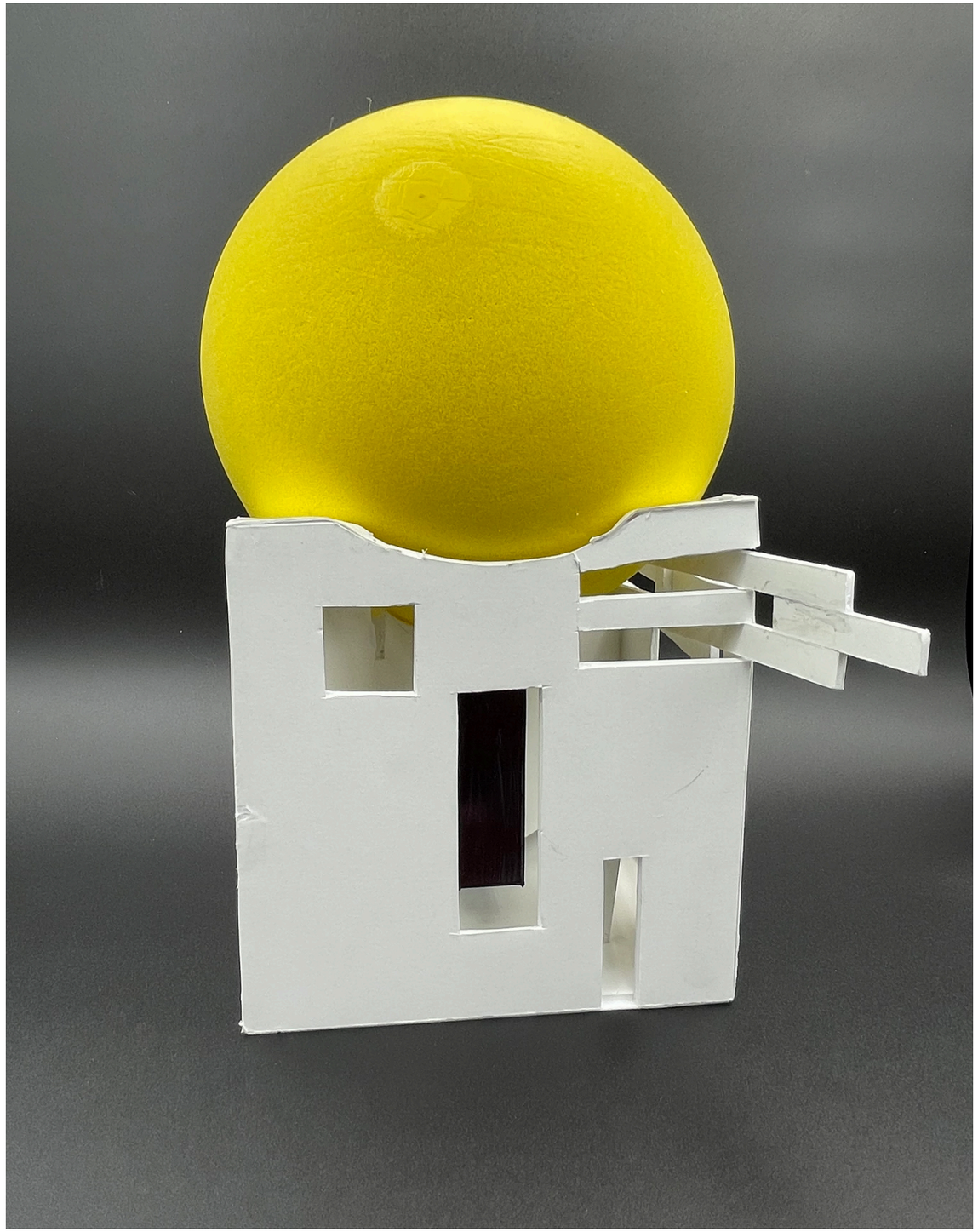


3 inch 3D model



Crucifix

6 inch cube in natural light



6 inch cube with black background

Massing Models

dominate, sub-dominant and subordinate forms

In architecture, dominant, sub-dominant, and subordinate forms are three forms used to create a sense of visual hierarchy in a building. The dominant form is the largest and most important form in a building and is typically the first thing people notice. The sub-dominant form is the second largest form in a building, commonly used to balance the dominant form. The subordinate form is the most diminutive in a building and is typically used to add detail and interest.

Mass models can be used to explore different ways to create dominant, sub-dominant, and subordinate forms in a building. Architects can create various visual hierarchies by experimenting with different shapes and sizes. This visualization can help to make a more visually exciting and engaging building.

Here are some examples of how dominant, sub-dominant, and subordinate forms can be used in mass models:

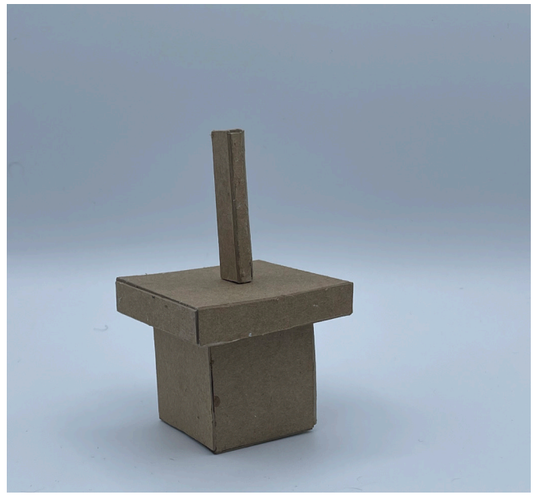
- A dominant form could be a large cube, a sub-dominant form could be a smaller cube, and a subordinate shape could be a cylinder.
- A dominant form could be a tall building, a sub-dominant form could be a shorter building, and a subordinate shape could be a group of smaller buildings.
- A dominant form could be an ample, open space, a sub-dominant form could be a smaller, enclosed space, and a subordinate shape could be a series of smaller areas.

Mass models can be a valuable tool for exploring different ways to create dominant, sub-dominant, and subordinate forms in a building. Architects can create various visual hierarchies by experimenting with different shapes and sizes, helping to create a more visually exciting and engaging structure.

Components for Mass Model Samples

Mass Model sample

Mass Model sample



Mass Model sample

Massing Models

Design Intention

The design intention of the massing model is to create a simple yet versatile model that can be used to experiment with different architectural forms. The model consists of three basic shapes: a 3-inch by 3-inch by ½ inch cube, a 2-inch cube, and a ¼ inch by ½ inch by 2 ½ inch rectangle. Various forms can be created by maneuvering these three pieces together.

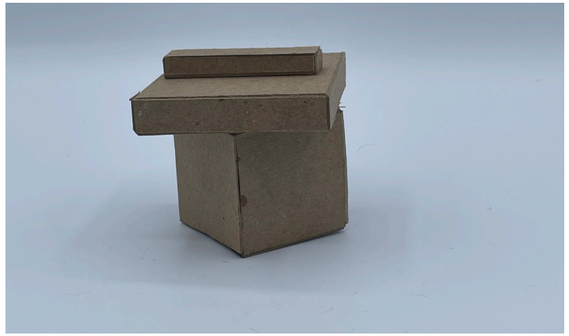
The first step is to assemble the three basic shapes into a simple model. Start with the 3-inch by 3-inch by ½ inch cube. Place the 2-inch cube on top of the 3-inch by 3-inch by ½ inch cube. Place the ¼ inch by ½ inch by 2 ½ inch rectangle on top of the 3-inch by 3-inch by ½ inch cube.

The model is now assembled and can be used to experiment with different architectural forms. Once the three pieces are created, the model can be used to experiment with other architectural structures.

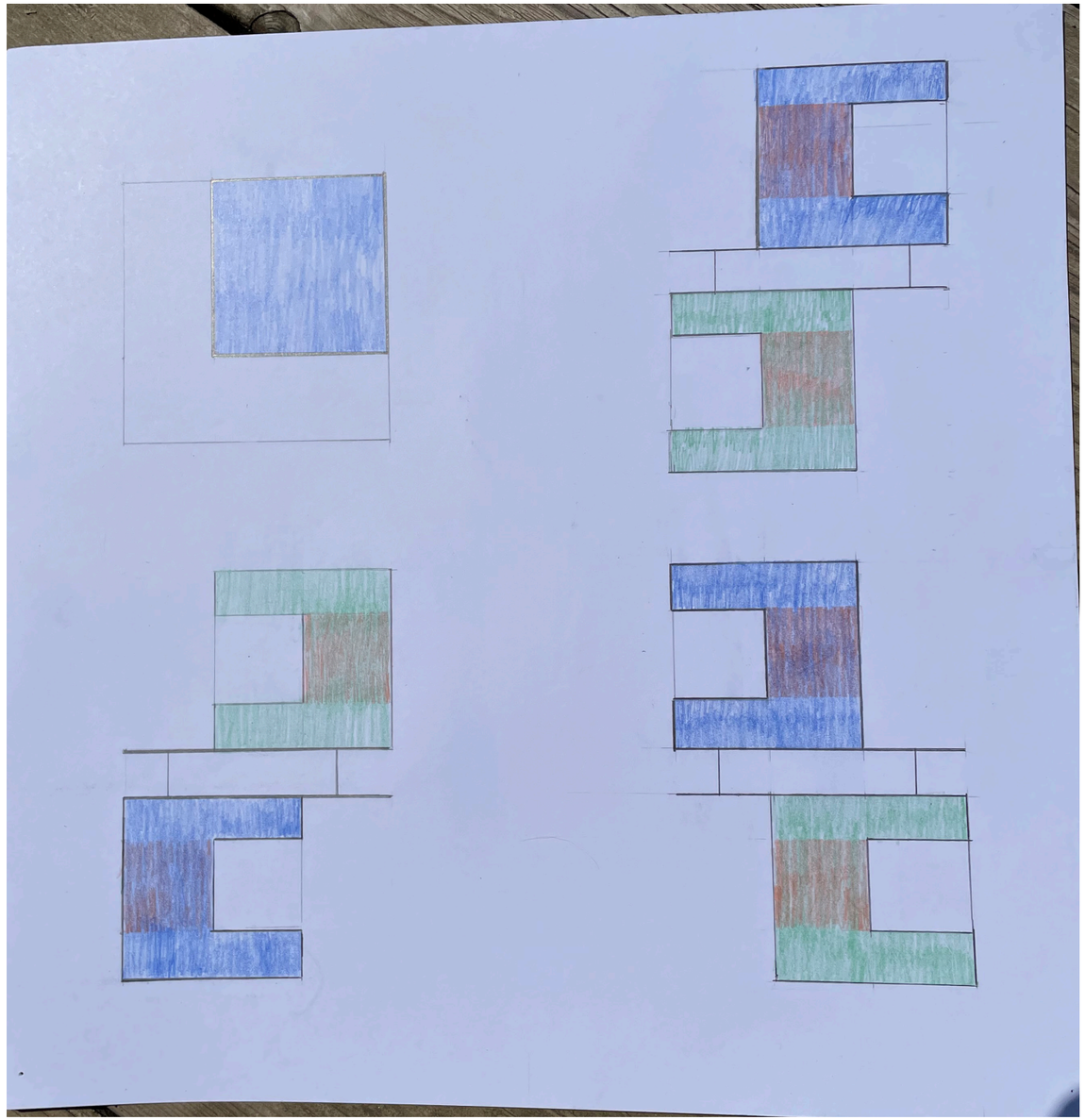
One way to experiment with the model is to create different shapes by moving the three pieces around. For example, a 3-inch by 3-inch by ½ inch cube can be transferred to the top of a 2-inch cube. A ¼ inch by ½ inch by 2 ½ inch rectangle can be moved to the bottom. This model will create a different shape than the original cube.

Another way to experiment with the model is to create different sizes by adding or removing pieces. For example, the 3-inch by 3-inch by ½ inch cube can be cut in half, making two 1.5-inch by 1.5-inch by ½ inch cubes. These two cubes can then create a different shape than the original cube.

The design of the massing model allows for many changes as part of the iteration process for designing a piece of architecture, making the model a valuable tool for architects looking to experiment with different forms and sizes.



Samples of Mass Models



Orthrographic drawing of Mass Model

Mass Model of a nine story building

Lifeguard Tower

Images of South Beach, Miami, Florida

Windflower Hotel

Marlin Hotel

South beach Art Deco

Bushes in front of the Hotel Flora

Palm trees and grass near the beach

Paths thru the beach grass

Lifeguard Tower

Flora and Fauna of South Beach, Miami, Florida

South Beach is a neighborhood in Miami between Biscayne Bay and the Atlantic Ocean, encompassing Miami Beach south of Dade Boulevard. It is known for its beaches, the Art Deco Historic District, and vibrant nightlife.

South Beach was first developed in the early 1900s by Carl G. Fisher, the Lummus Brothers, and John S. Collins. Fisher was a visionary entrepreneur who saw the potential of Miami Beach as a winter resort destination, building the first bridge connecting Miami Beach to the mainland and developing the first hotels and casinos on the island. The Lummus Brothers were developers building the first oceanfront hotels and resorts on South Beach. Collins was a civil engineer building the Collins Bridge, which connected Miami Beach to the mainland.

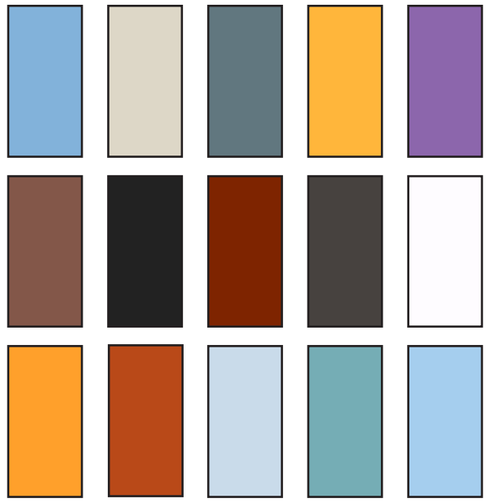
South Beach's Art Deco Historic District has a significant collection of Art Deco architecture, designated a National Historic Landmark District in 1989. The Art Deco buildings in South Beach are a testament to the city's history and its vibrant cultural scene.

South Beach is also known for its vibrant nightlife, home to various bars, clubs, and restaurants, and a popular destination for celebrities and tourists alike.

Things you can do in South Beach:

- Visit the Art Deco Historic District
- Take a walk or bike along Ocean Drive
- Relax on the beach
- Visit the Miami Beach Botanical Garden
- Go shopping at Lincoln Road Mall
- See a show at Jackie Gleason Theater
- Visit the Wolfsonian-FIU
- Take a boat trip to Biscayne Bay
- Go to a nightclub
- Have dinner at one of the many neighborhood restaurants

South Beach is a vibrant and exciting neighborhood with something to offer everyone, such as those looking for a relaxing beach vacation, a fun-filled night out, or a cultural experience. South Beach has it all.



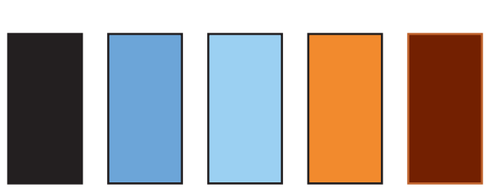
Color Swatches

Lifeguard Tower

Color Analysis

The photo uses bright pastel colors matching the local neighborhood's style to create a specific effect. Bright colors allow the towers to be easily seen on the beach. The high contrast between the Art Deco colors and the blues of the sky, water, and the colors of the sand causes this sight.

Color harmony is done with the split complementary color theme, with the towers in three colors. The dominant part is in purple, with the trim complementing it with Yellow, and the subordinate elements, such as the roof line and the floor, being a light purple



Color Harmony

Proporrtion and Intensity

Lifeguard Tower

Presentation

The inspiration for this lifeguard tower project was the Art Deco theme from South Beach, Miami, Florida. The buildings' bright colors and unique designs in that area were the basis for the color schemes and designs of the new lifeguard towers.

To keep all lifeguard towers looking their best, they are constantly refurbished and replaced. In 2015, many were given a face-lift in honor of the Miami Beach Centennial celebration. Additionally, six new lifeguard tower designs were created by architect William Lane and have been implemented throughout the beaches of Miami. The towers feature vibrant color schemes of pink, orange, blue, green, and purple, with one building chosen as the model for color harmony, using a split complimentary color theme of purple, lavender, blue, and orange.

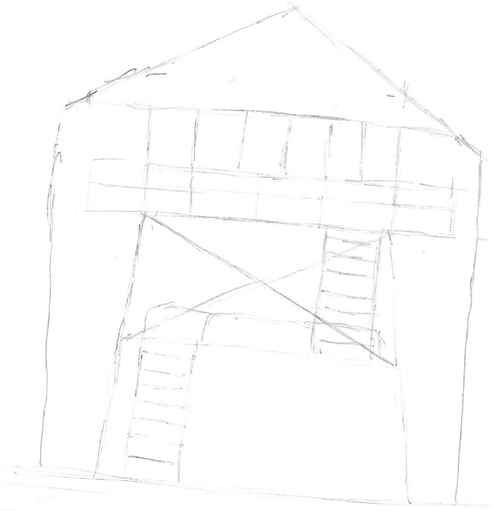
A massing model was built to study different shapes and configurations for the lifeguard tower. The hexagon pattern was initially used for the platform, but it was later decided to change the form to an octagon and have the windows dropdown. After studying the new model, it was discovered that the shutters were too big and were shortened by lowering their height from the ceiling. The tower's primary feature is the building itself, with the roof, railings, stand, and deck as subdominant and subordinate features.

The tower's large windows were designed to provide a clear view of swimmers in the water while also protecting them. The awning of the roof was changed to incorporate the entire tower form. The high windows cover the whole wall, except for the back wall, allowing for 180-degree unobstructed views of the beach. Stools were also added inside the tower to provide a place for the lifeguards to sit while watching.

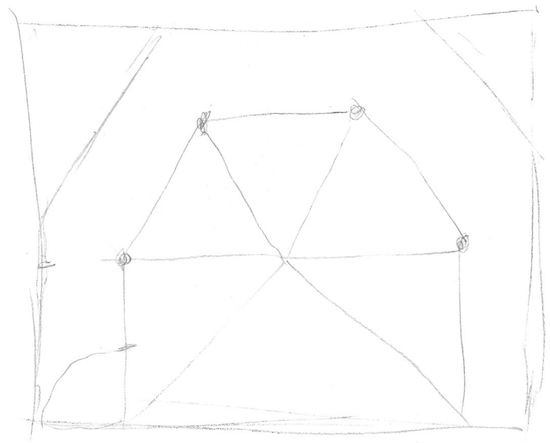
The colors chosen for this lifeguard tower were blue for the building, lavender for the facade and deck, and gold for the balusters, rails, and trim. The handrails were kept simple to prevent people from falling through to the beach, as the tower is about seven feet tall off the sandy beach.

The project was designed to create a reasonably nice lifeguard tower that could be easily modified. The roof plan could be changed to include flowers or stars, or a dome could be added instead of a flat roof. The cost was a consideration; metal panels were used for the top, the walls were made of plywood, and the trim of inexpensive one-by-four painted pieces.

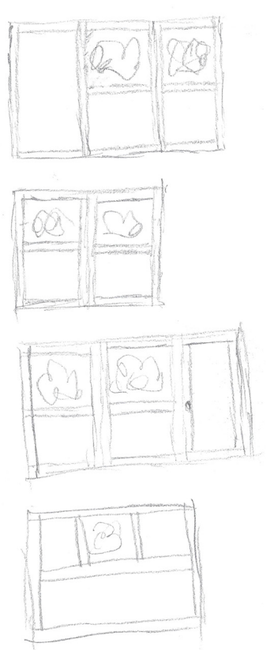
The lifeguard tower project was inspired by the Art Deco theme from South Beach, Miami, and features vibrant colors and unique designs. The tower was designed with safety and functionality, with large windows providing unobstructed beach views and stools inside the building for the lifeguards. The project was also intended to be easily modified, with cost considerations in mind.



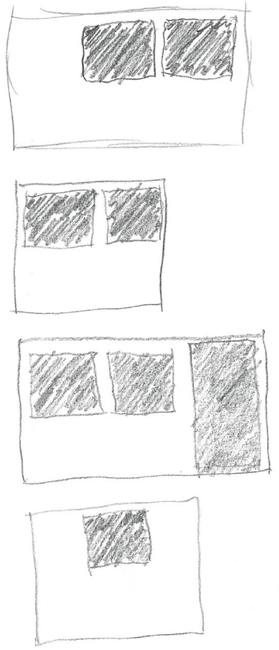
Original idea was based on a West Virginia lookout tower with poles added for fast exit



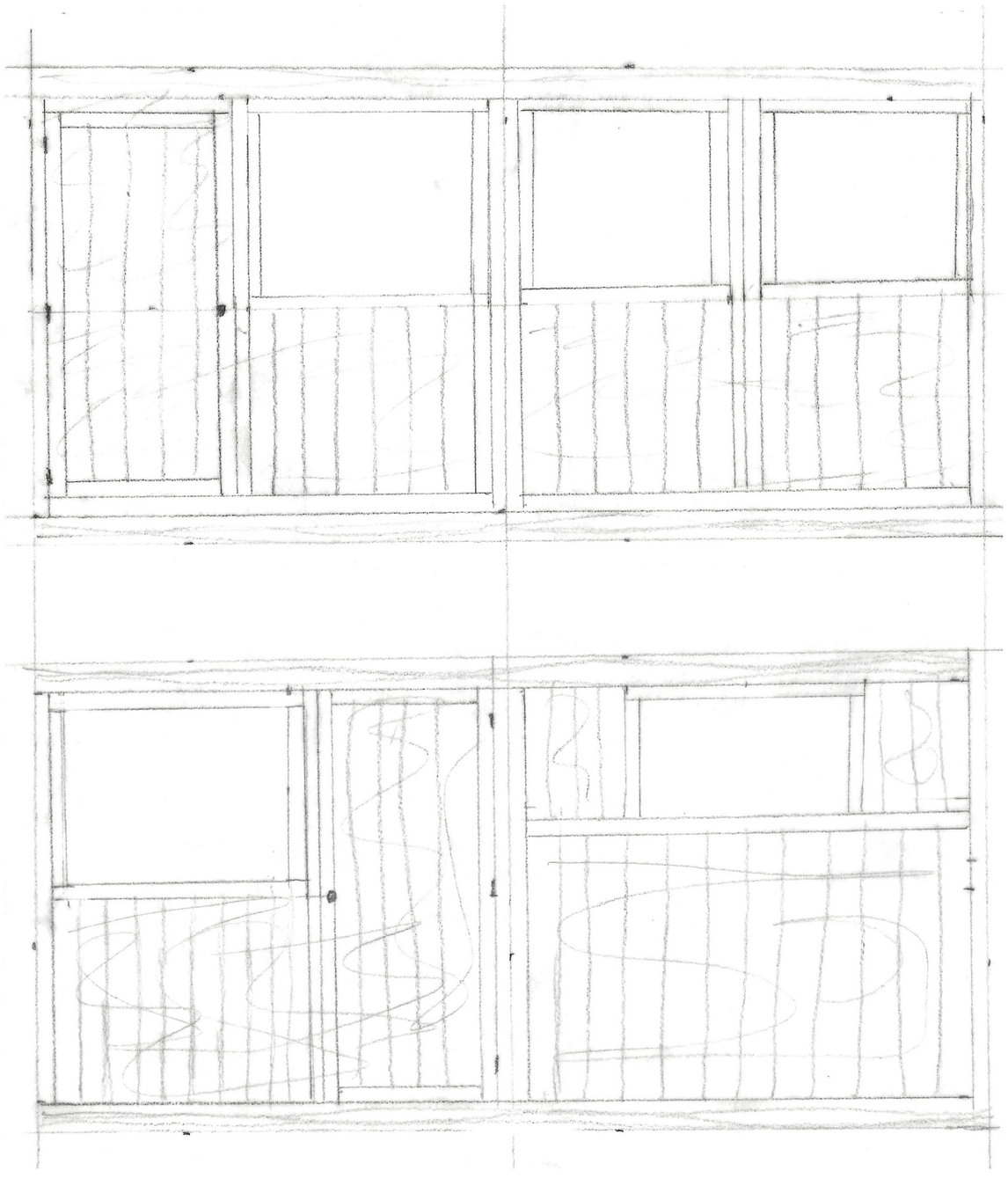
This plan was then modified to include windows on the east, south and west side of the structure based on a south beach facing



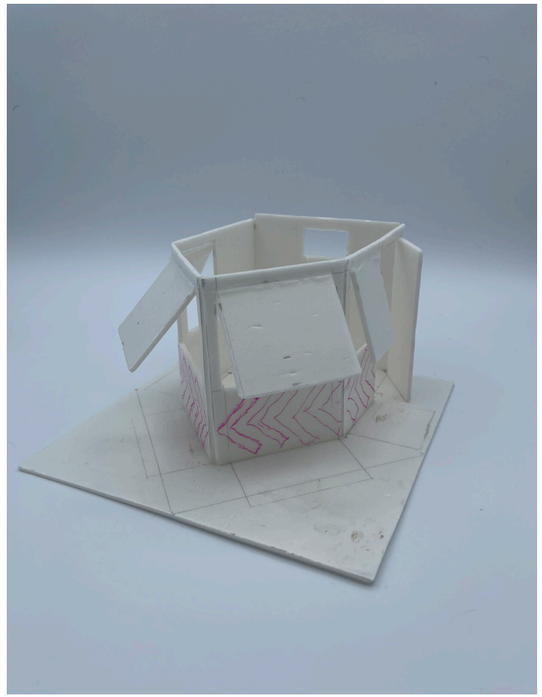
These are the elevation drawing showing the windows and shutters



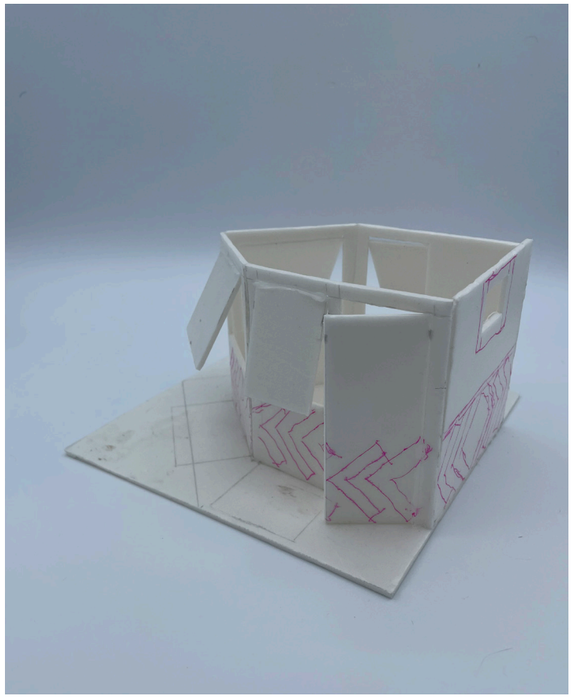
The elevation drawings of the massing model showing the windows as voids



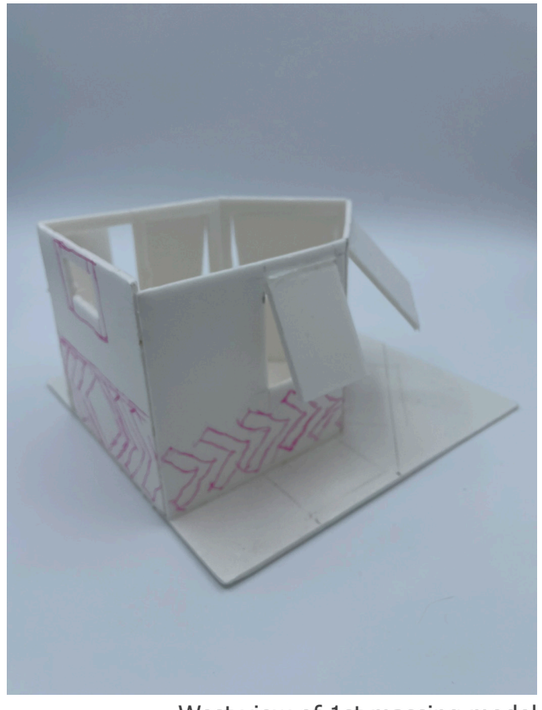
A detail elevation views of the tower



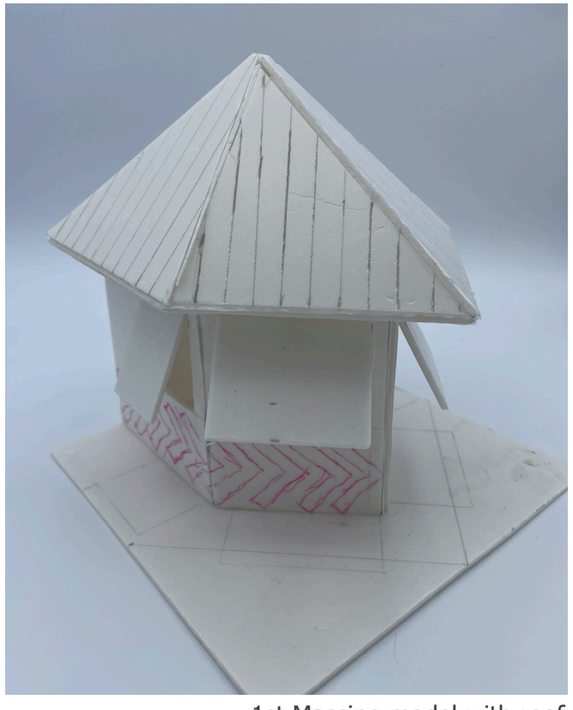
South View of 1st massing model



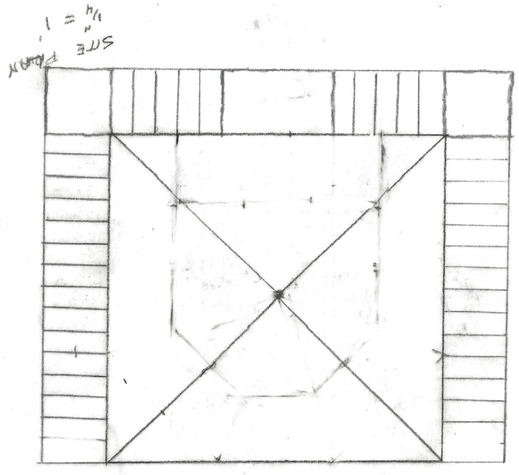
East view of 1st masssing model



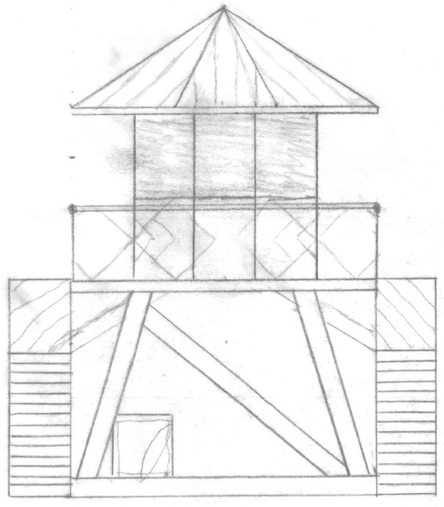
West view of 1st massing model



1st Massing model with roof

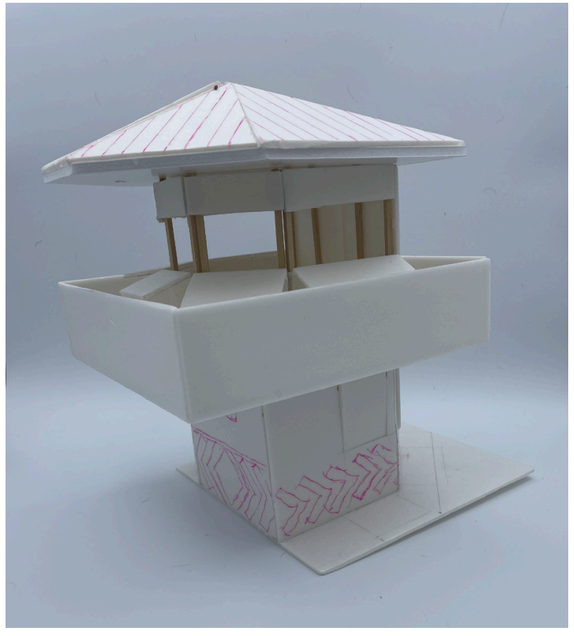


The plan of the 2nd model
where stairs are added, and the dominate
mass is more of a octogon shape

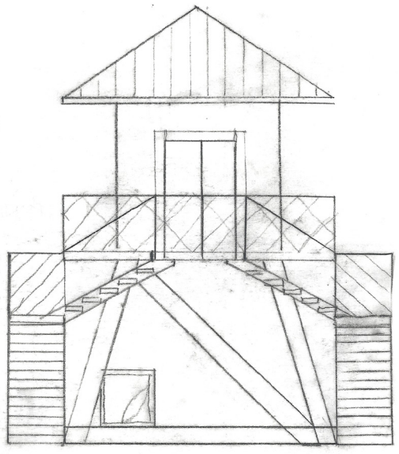


South Elevation of the 2nd massing model

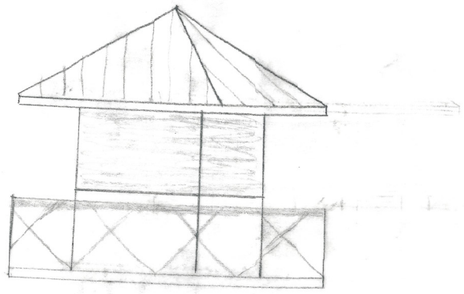
South View of the 2nd massing model



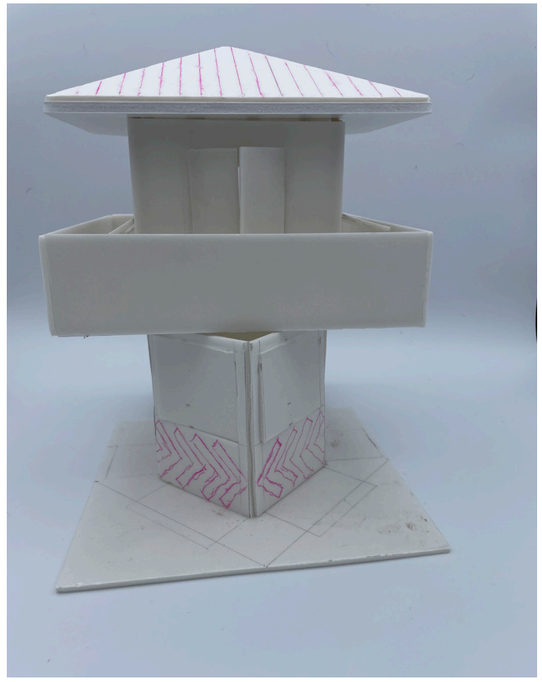
South East View od the 2nd massing model



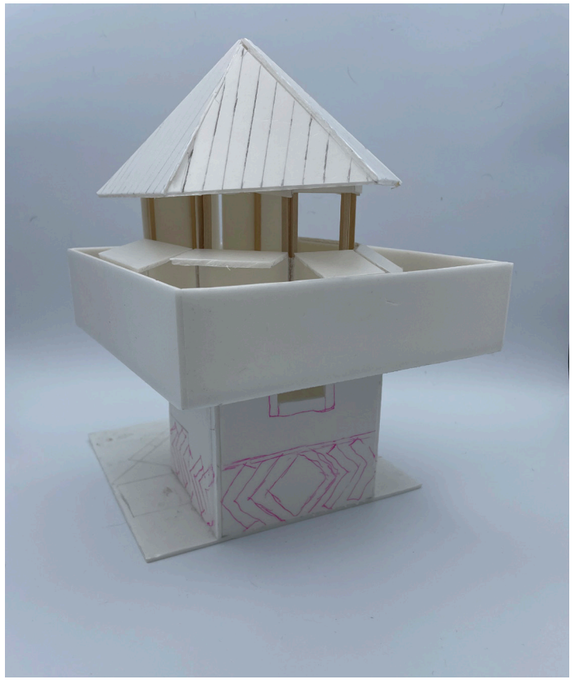
North elevation of the 2nd massing model



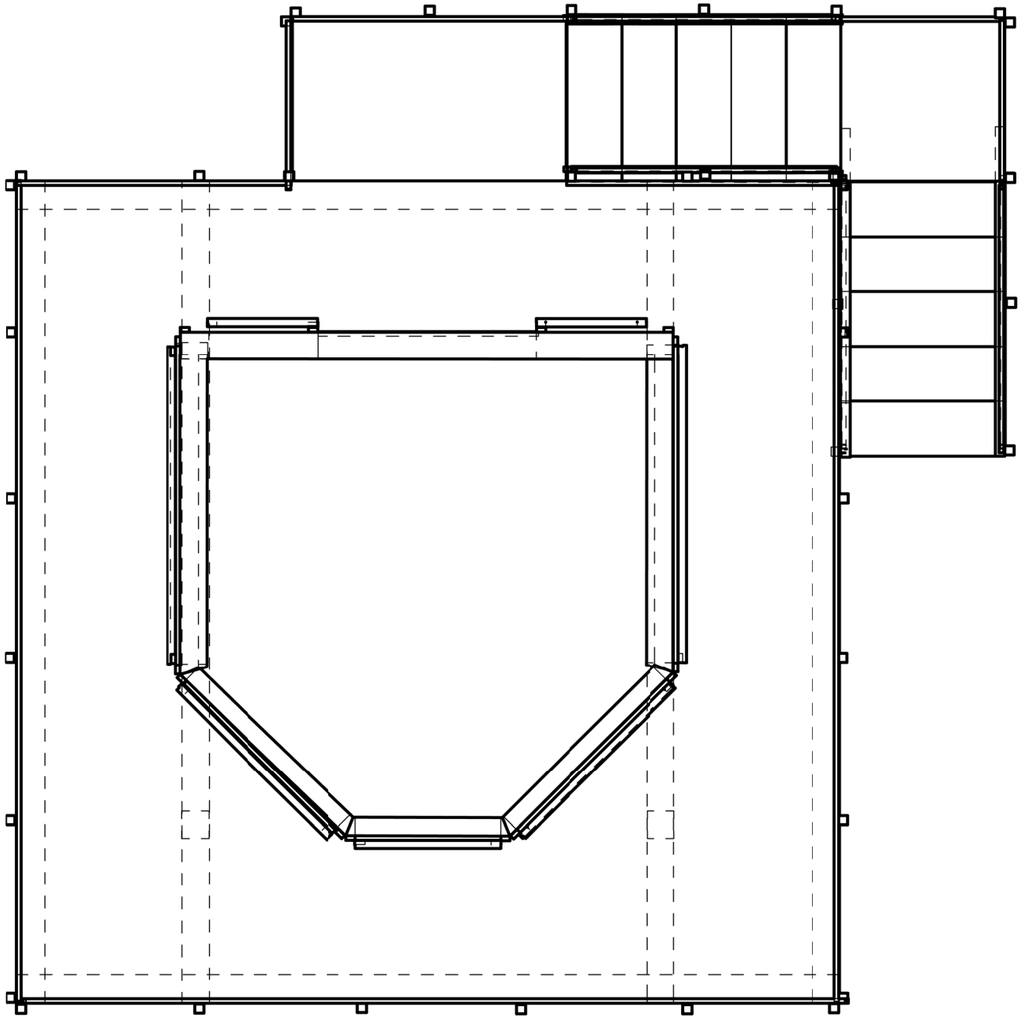
East elevation of the 2nd massing model



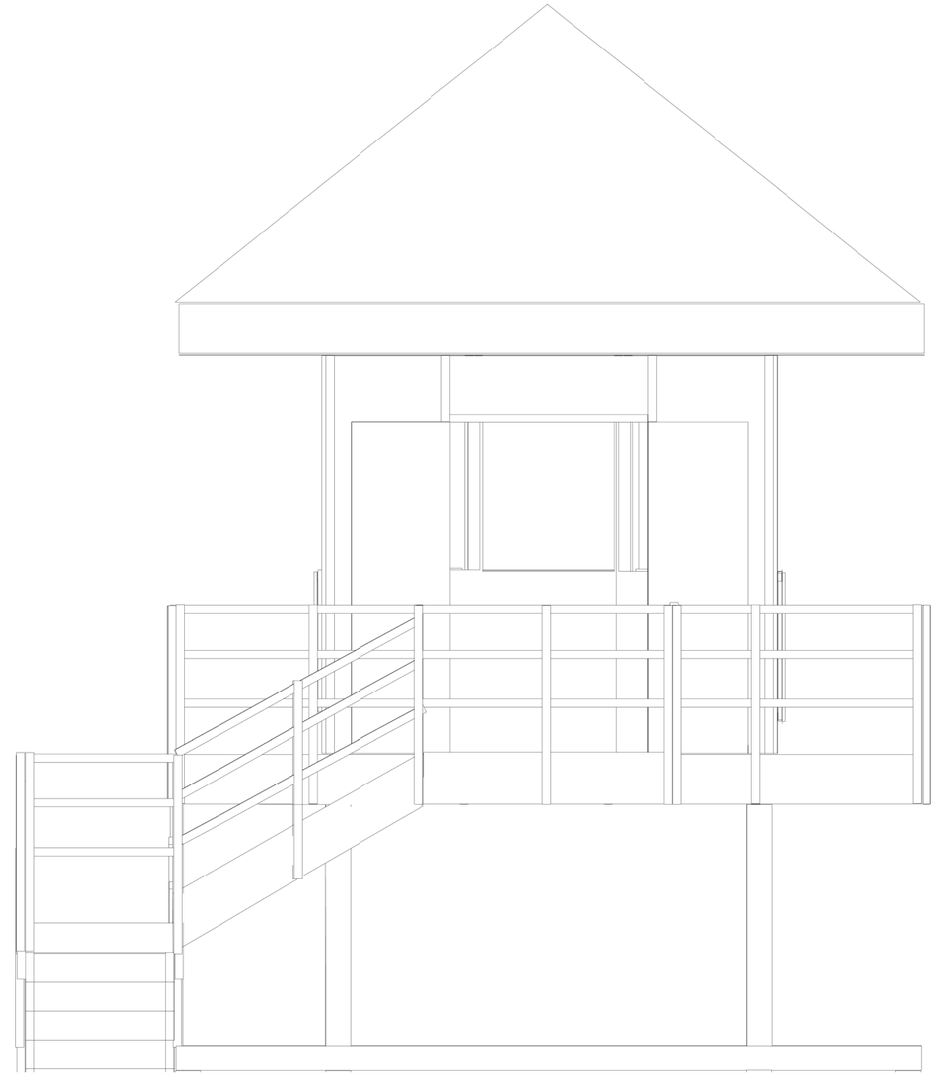
North View of the 2nd massing model



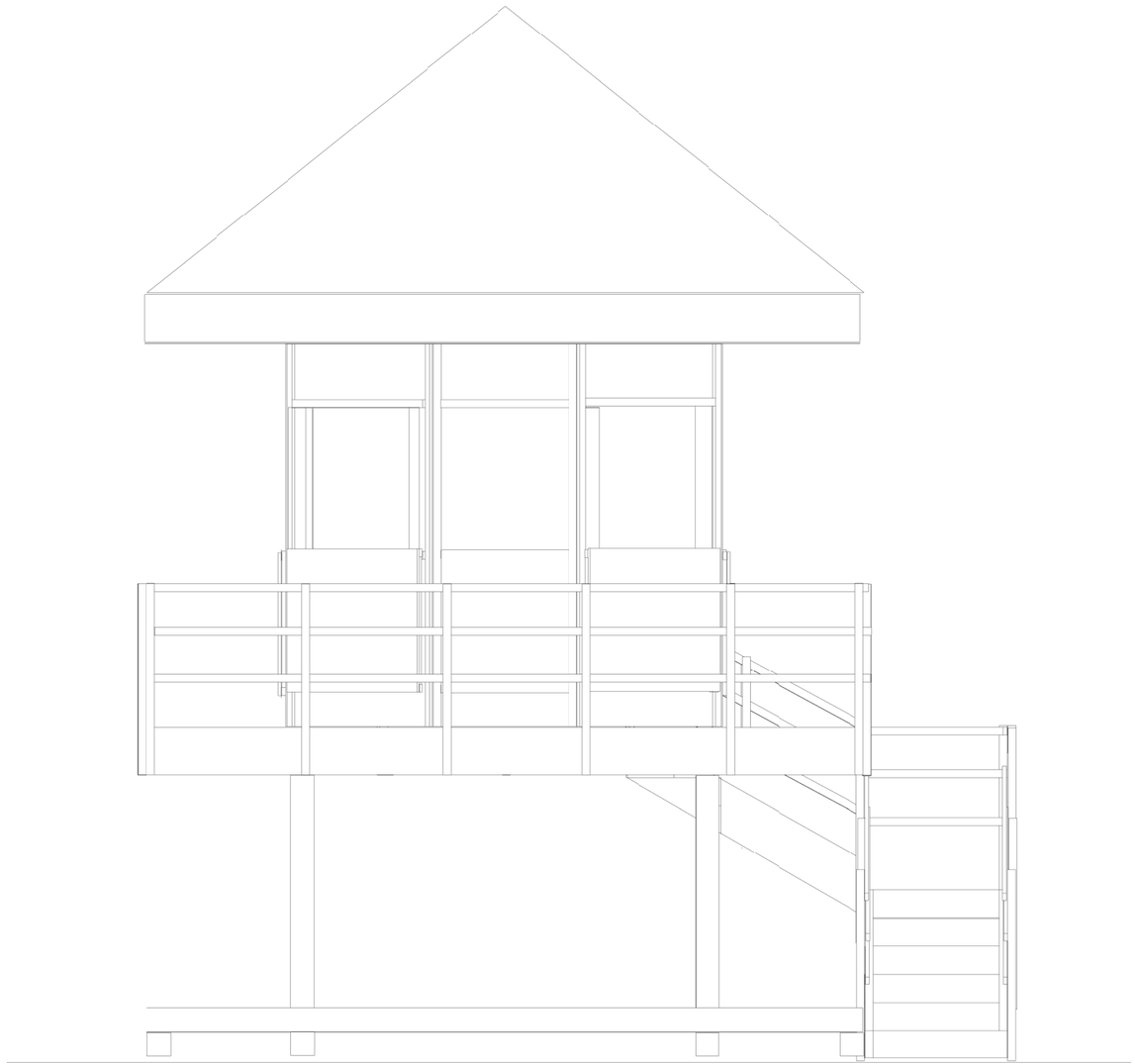
South West View of 2nd massing model with
alternative sloping roof



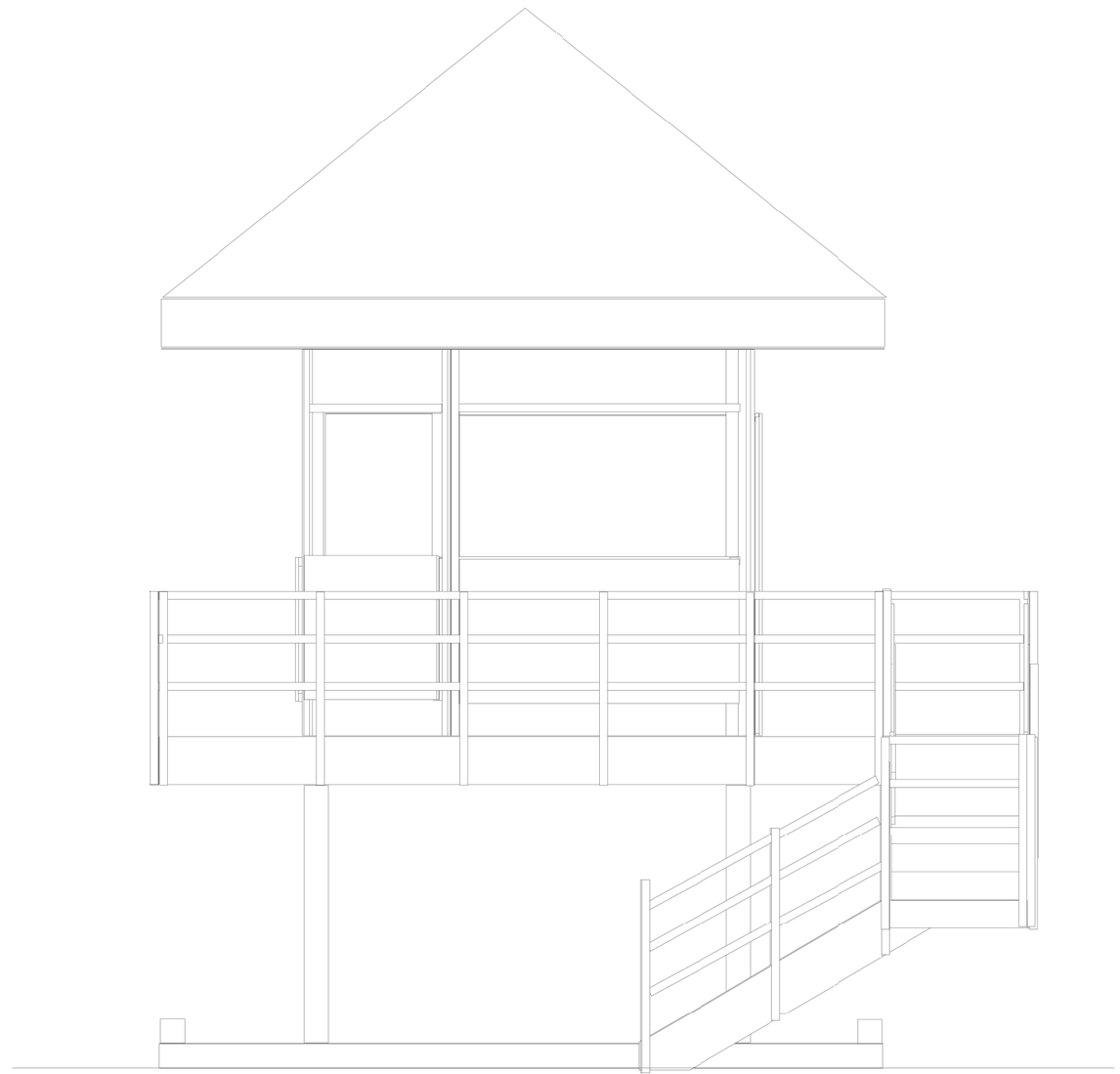
Floor Plan



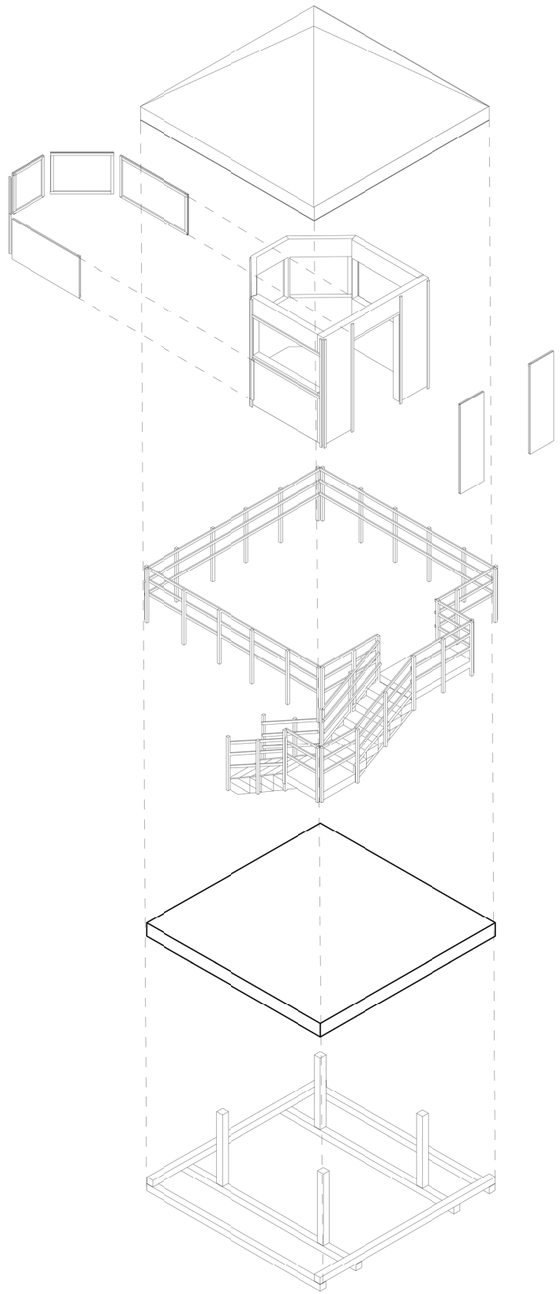
North Elevation



South Elevation



East Elevation



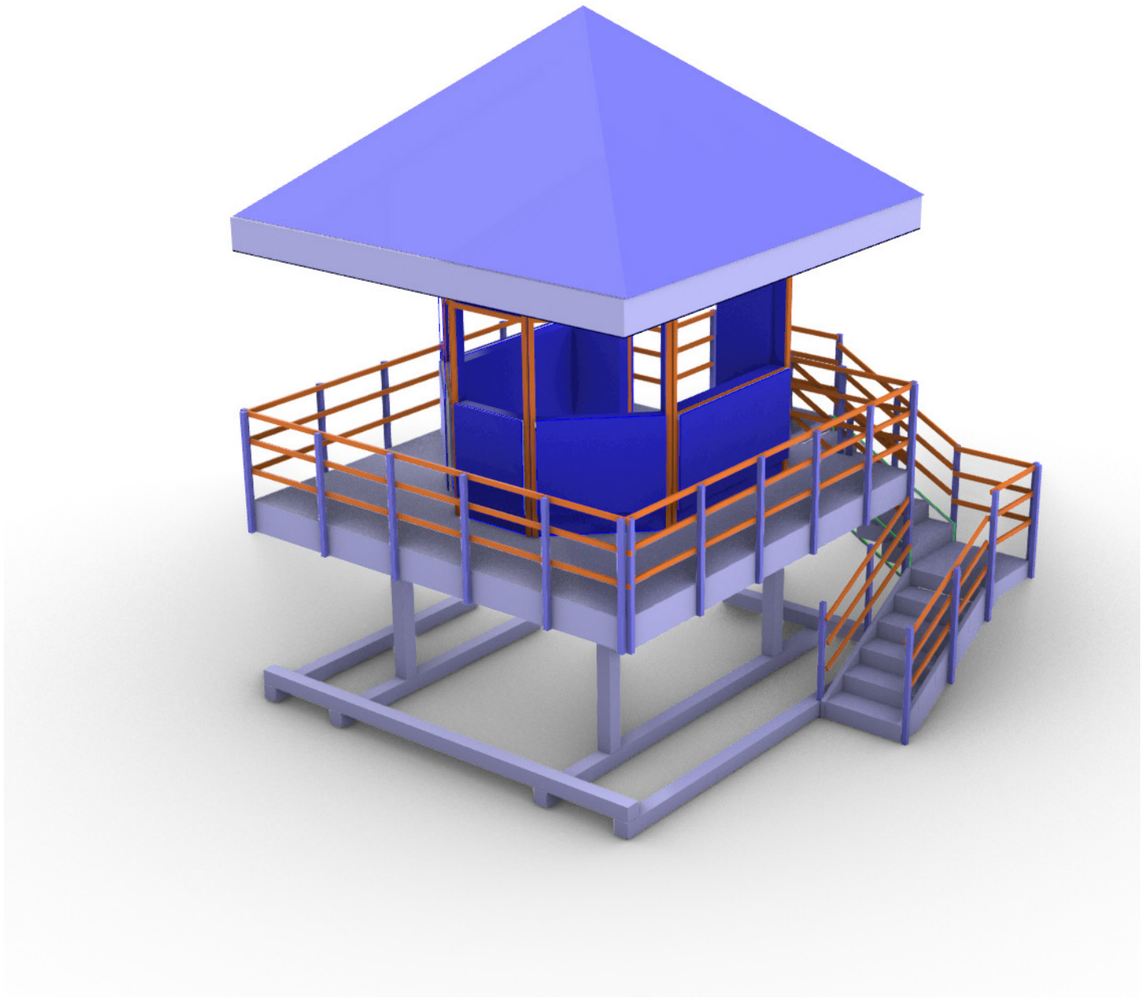
Exploded Axonometric projection

North East view of the tower

West view of the tower

South view of the tower

North West view of the tower



Prospective view of the tower

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