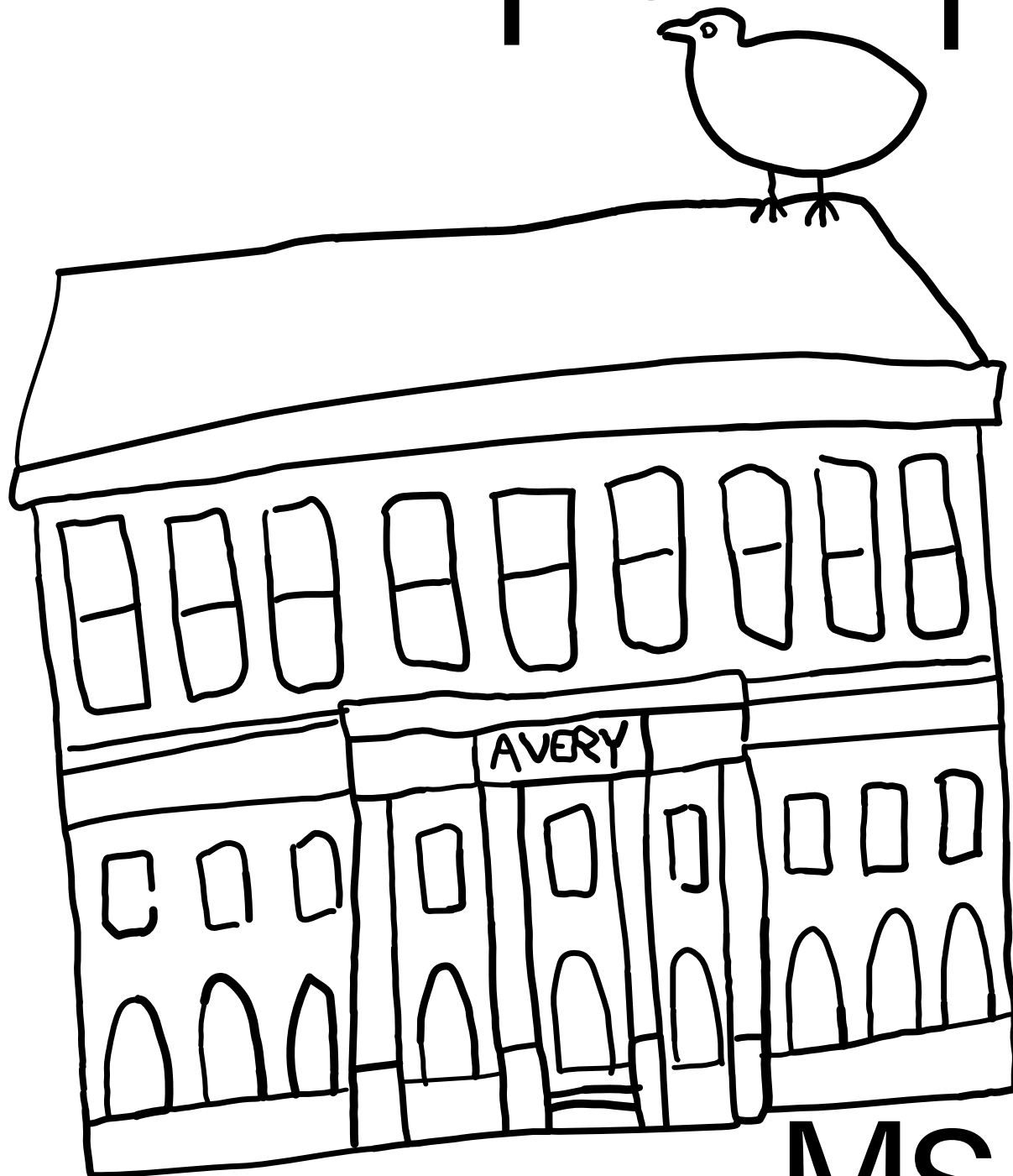


GSAPP

portfolio



Yi Wu

MS AAD

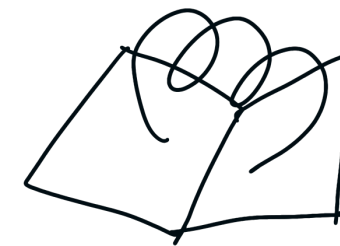
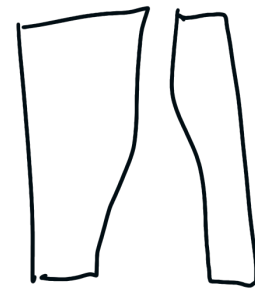
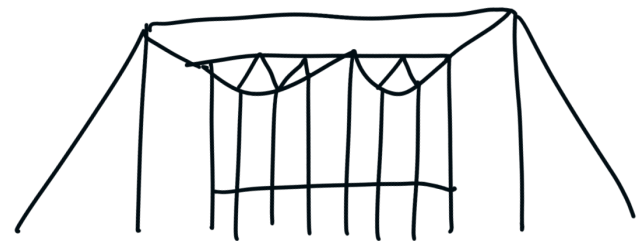
P4 Flexile House
2024 SPRING
Architecture Studio VI - Reality Stranger than Fiction
Instructor - Michael Bell

P14 Unveil
2024 SPRING
Architecture Studio V - The Coming Community
Instructor - Jing Liu

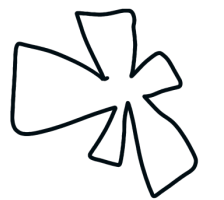
P24 Roberto Burle Marx Study
2023 Fall
Architecture Apropos Art
Instructor - Steven Holl , Dimitra Tsachrelia

P26 Eternal Echos
2024 Spring
Generative Design
Instructor - Danil Nagy
Team - Ammar Rassai, Devansh Shah, Xiaoqi Shen, Yifei Dong

2



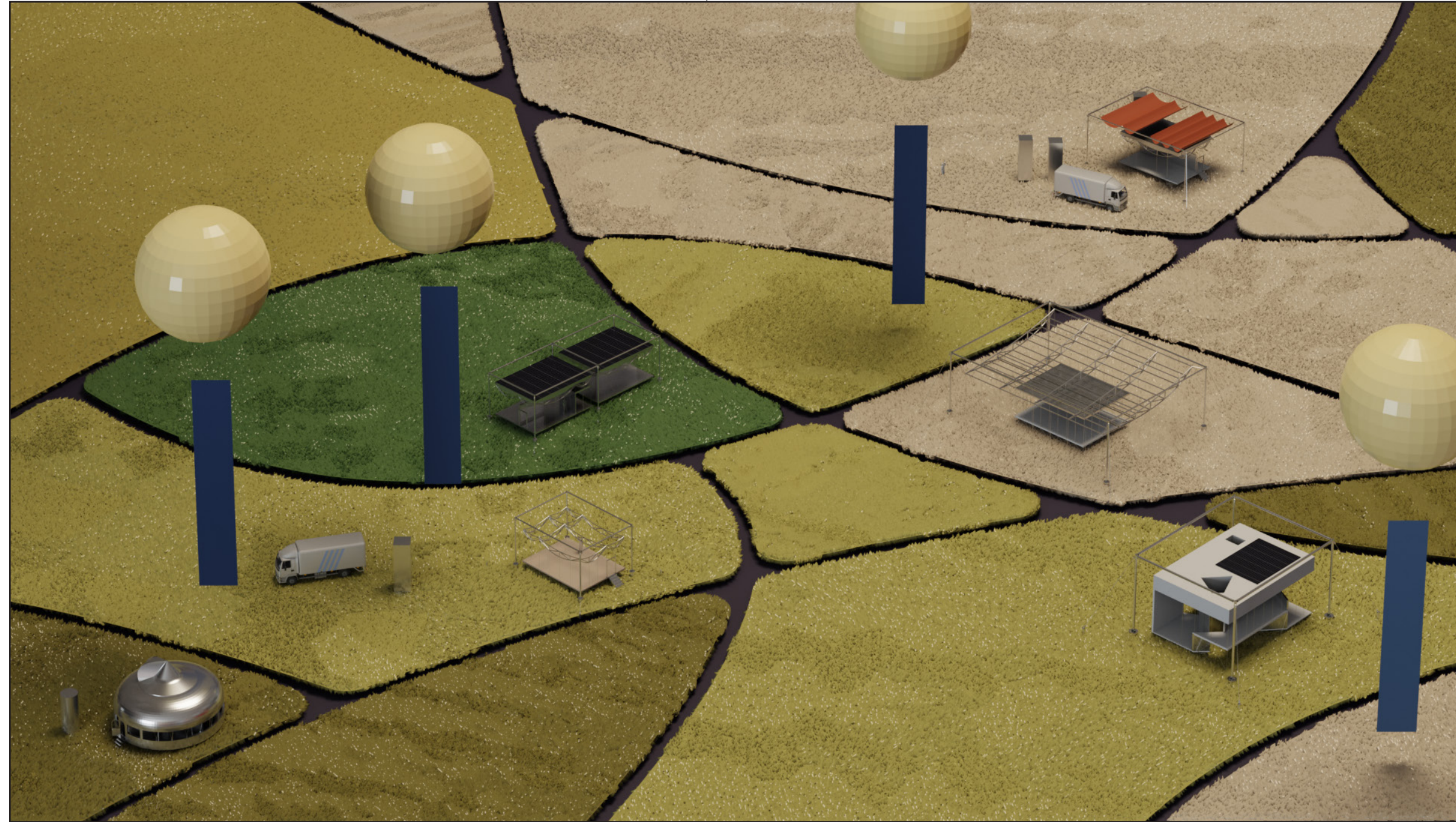
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Flexile House

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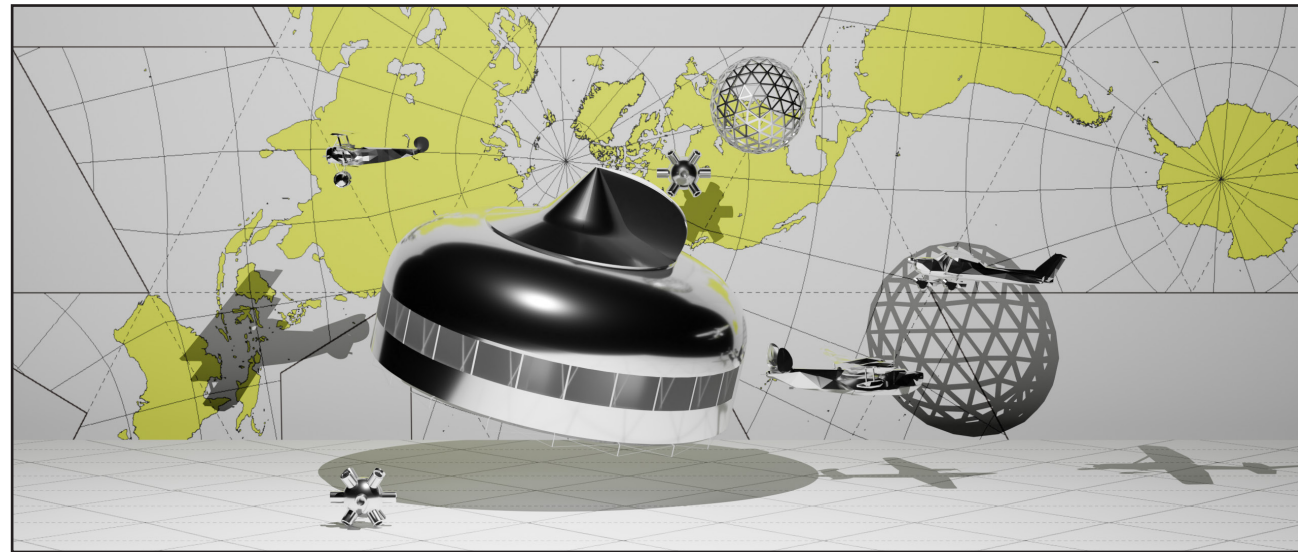
4



5

6a

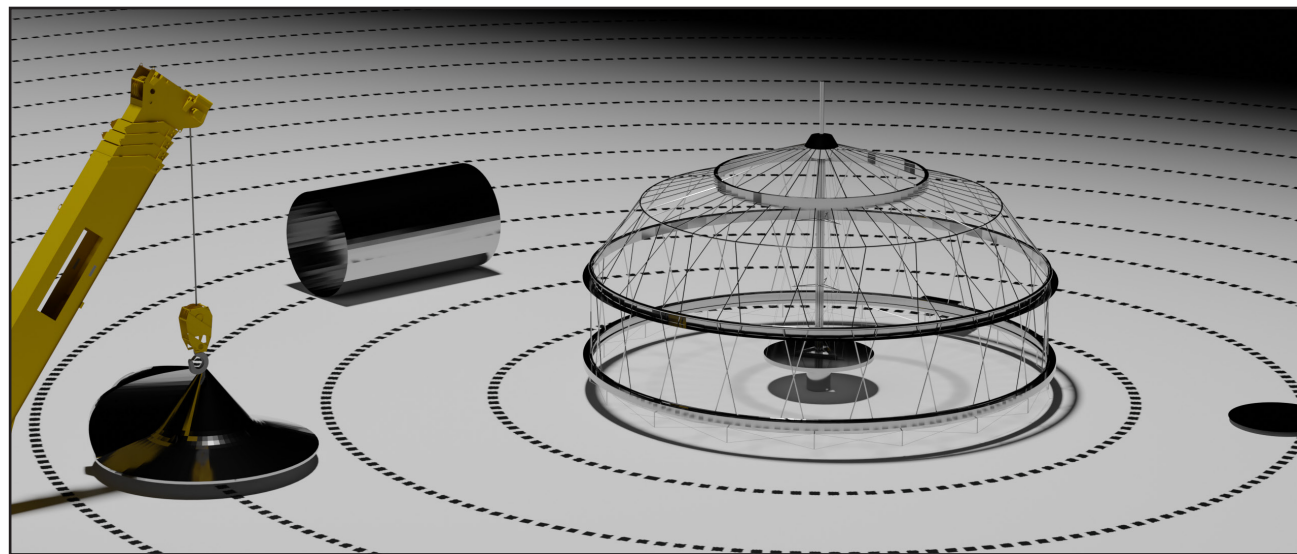
The purpose of the design was to enable mass-produced houses that were easily transportable to any location in the world. The surplus of aircraft materials following the war presented an opportunity to transform conventional housing practices by repurposing fighter factory resources, thus offering a more sustainable housing solution.



a

6b

Its components were manufactured off-site and assembled on-site, and each Dymaxion Dwelling Machine could be packed within a 16 x 4 1/2 foot shipping tube, similar to those used for aircraft parts, and shipped anywhere.



b

6

6c

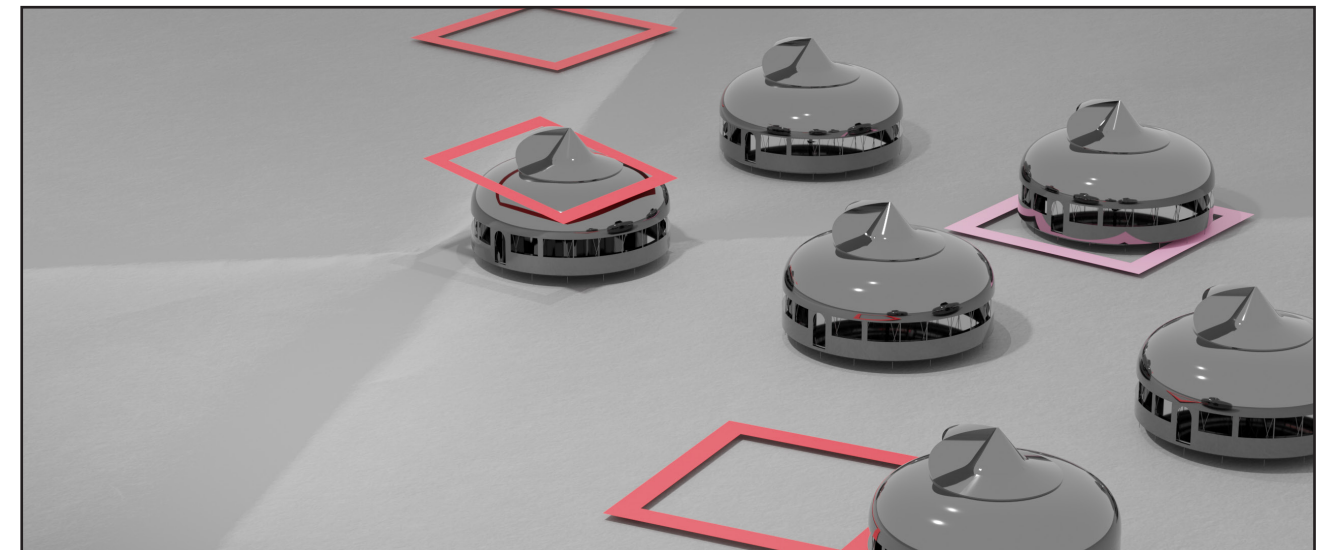
Single Family housing room envelop adapt to circle Ordinary furniture. This house is like a machine, every parts is accurately customized, The commode, shower, bathtub, and sink seamlessly integrated into the structural shell, crafted as one cohesive unit.



d

6d

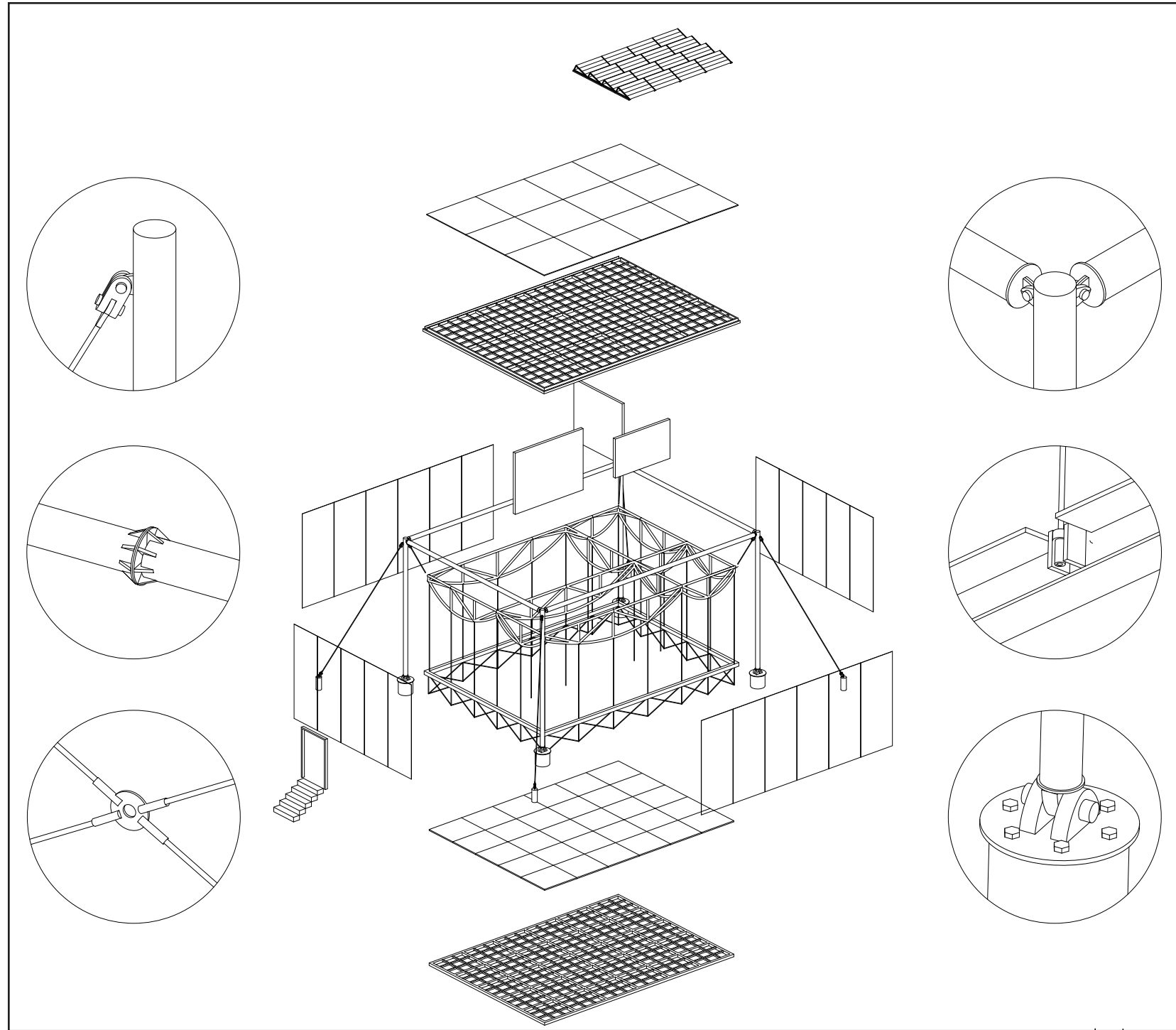
Despite its groundbreaking design and technological progress, the Dymaxion House encountered significant criticisms, especially concerning its perceived lack of flexibility and material selection. Critics contended that the design ignored regional architectural traditions and lacked adaptation to unique site requirements.



d

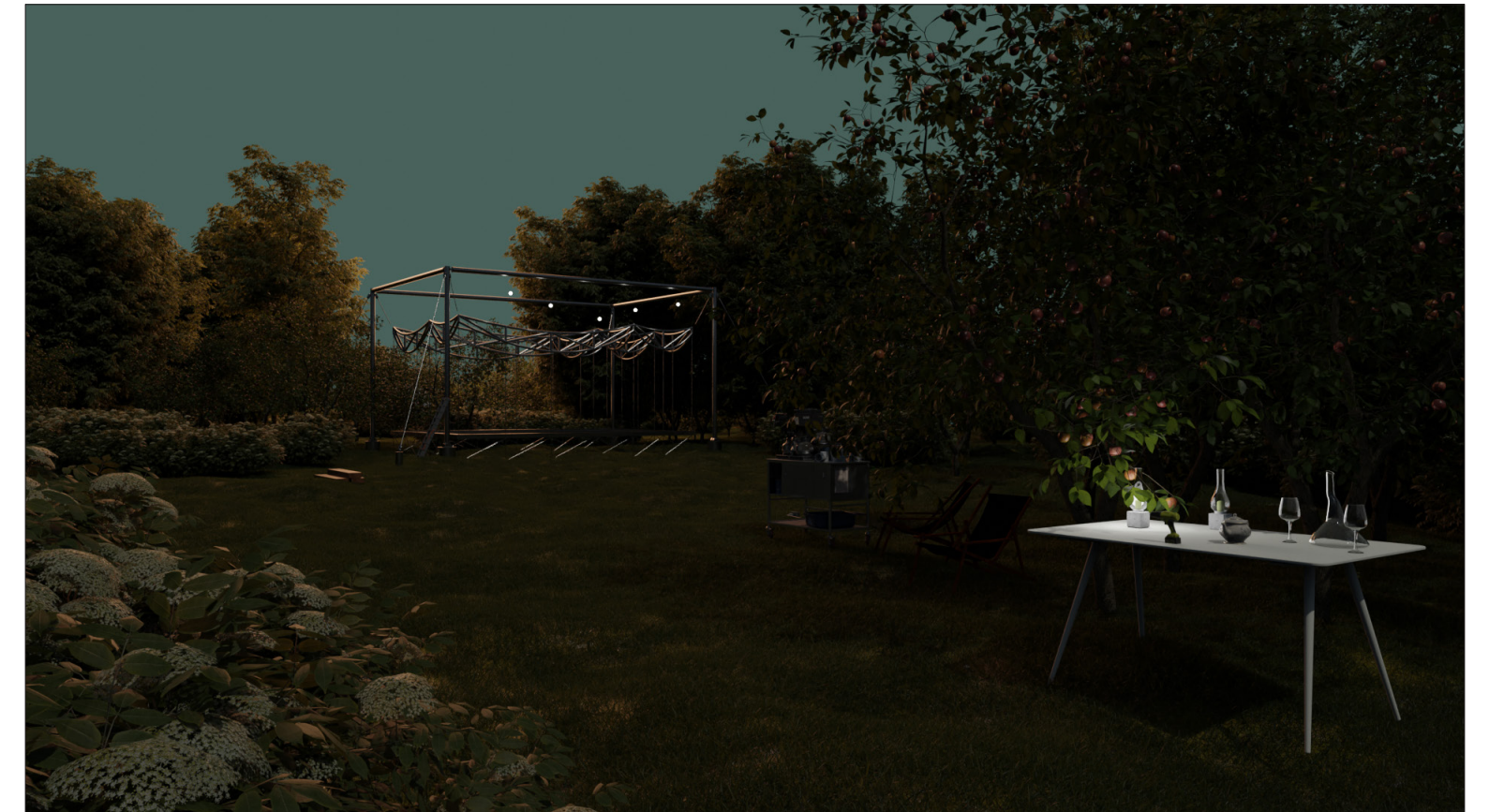
7

8



9a

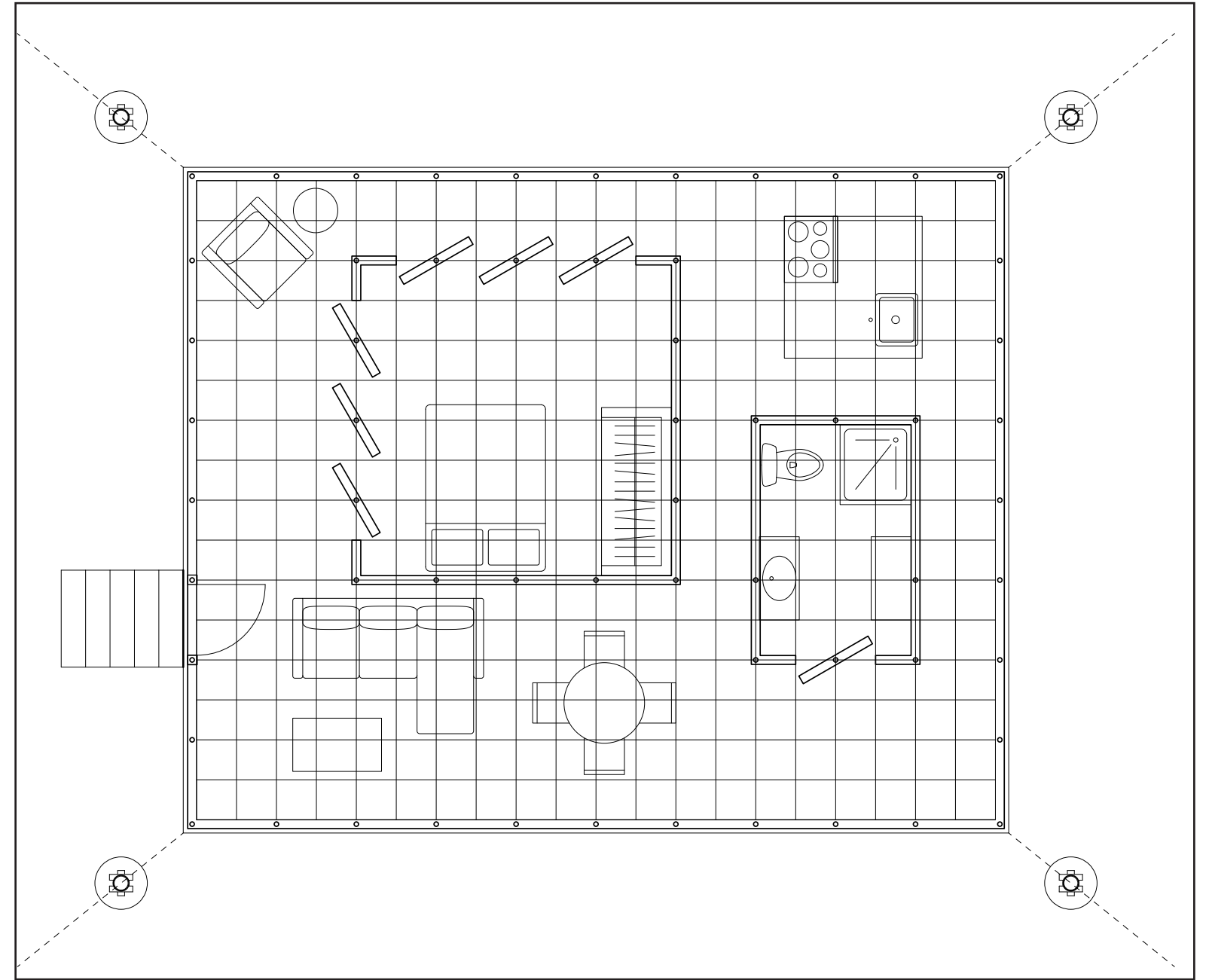
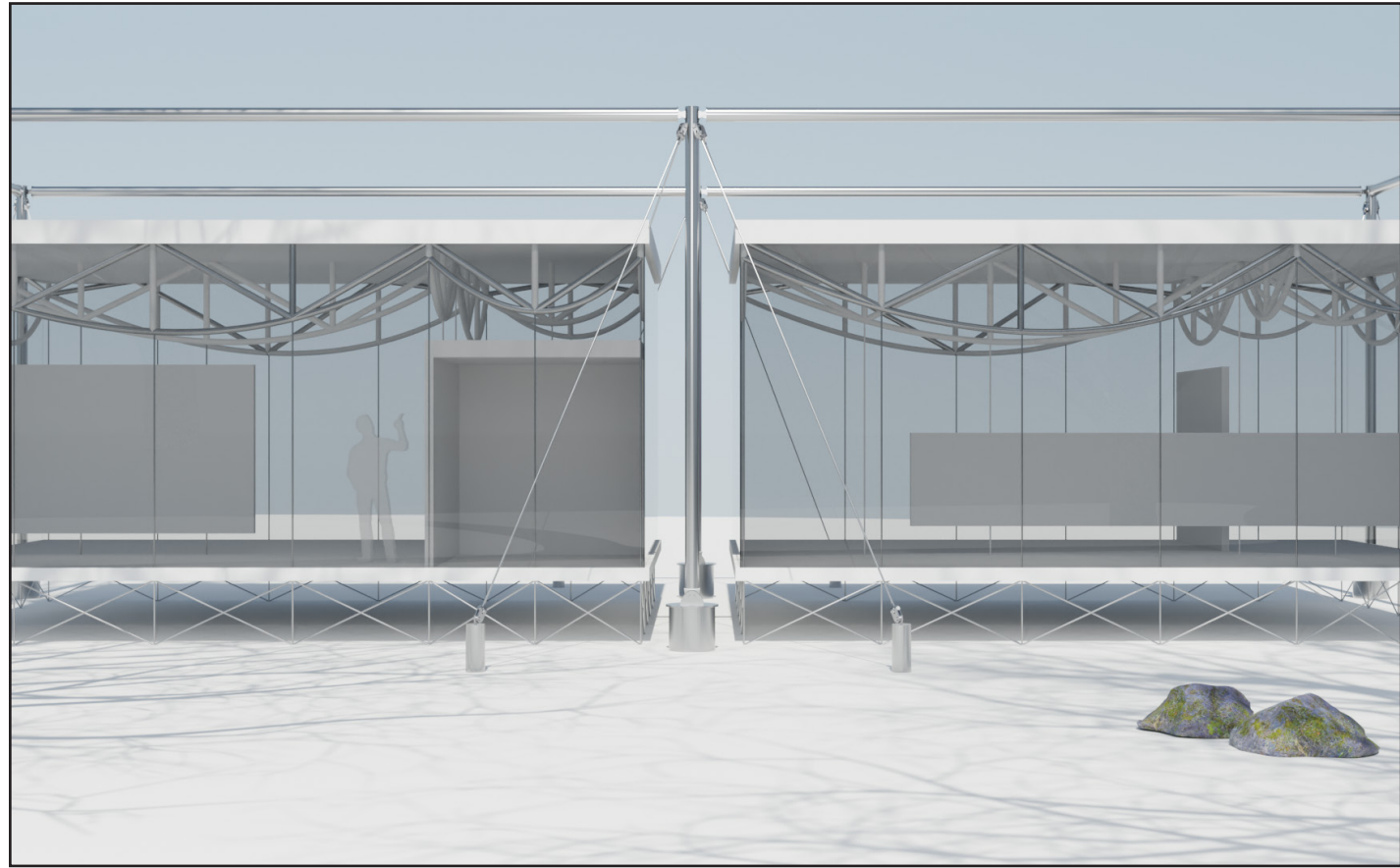
A weighs approximately 10,000 pounds and can be transported by either a medium or heavy-duty truck. Simplifying the installation process, we've ensured that the instructions are straightforward, allowing individuals to construct it independently. During installation, tools such as a torque wrench, helical drill, and winch will be utilized.



9

10a
Model can function as unit and grow into a community.

10



11

12a

An alternative prototype represents an advanced iteration of the original model, focusing on enhancing customization capabilities. This iteration introduces a two-stories structure, offering increased space for living and functionality. Walls and furniture are designed to be suspended from cables, resulting in an exceptionally lightweight and airy atmosphere within the space. The incorporation of transparent elements fosters a seamless connection with nature, creating an illusion of weightlessness and fluidity. As occupants navigate through the space, they experience a sensation of everything being suspended and in constant motion, creating an immersive quality of the environment.

12



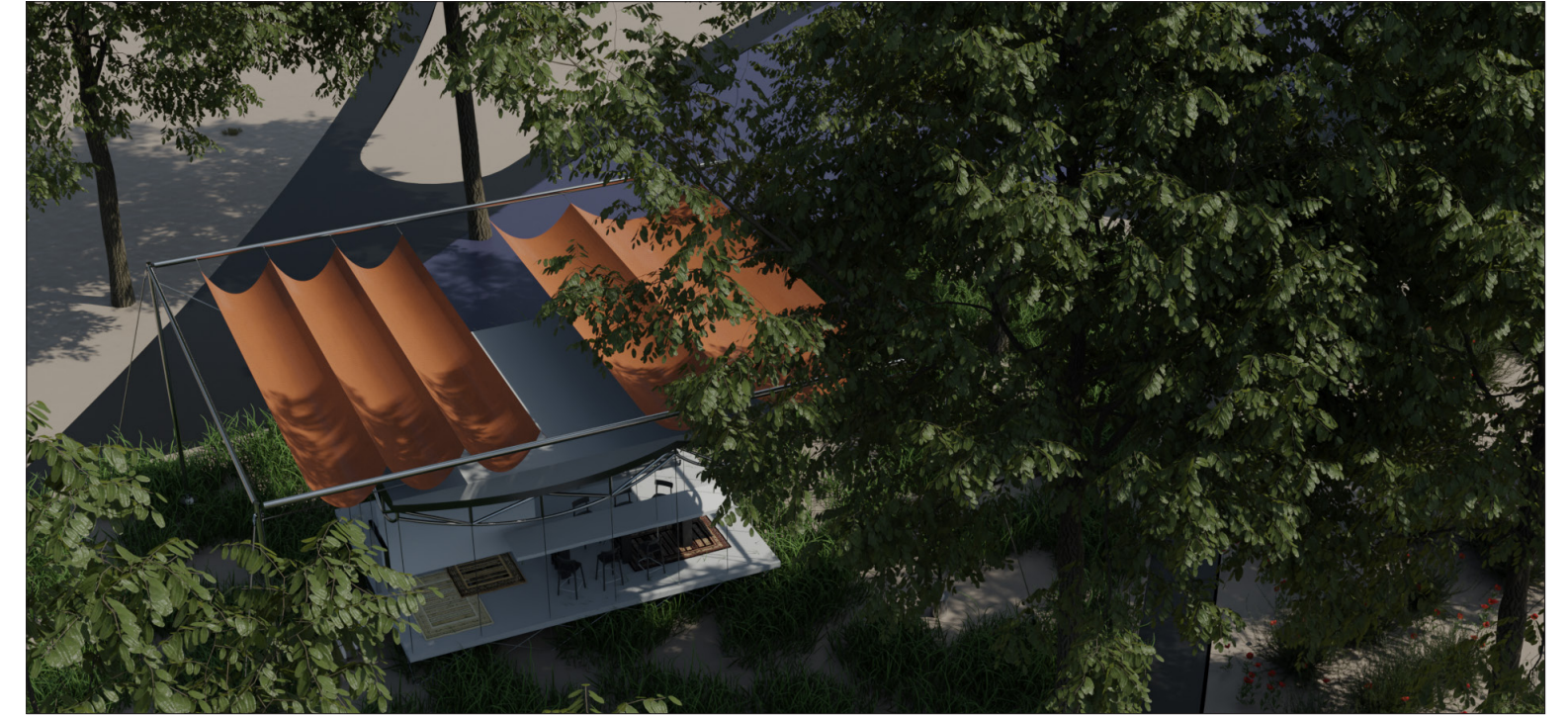
a

13a

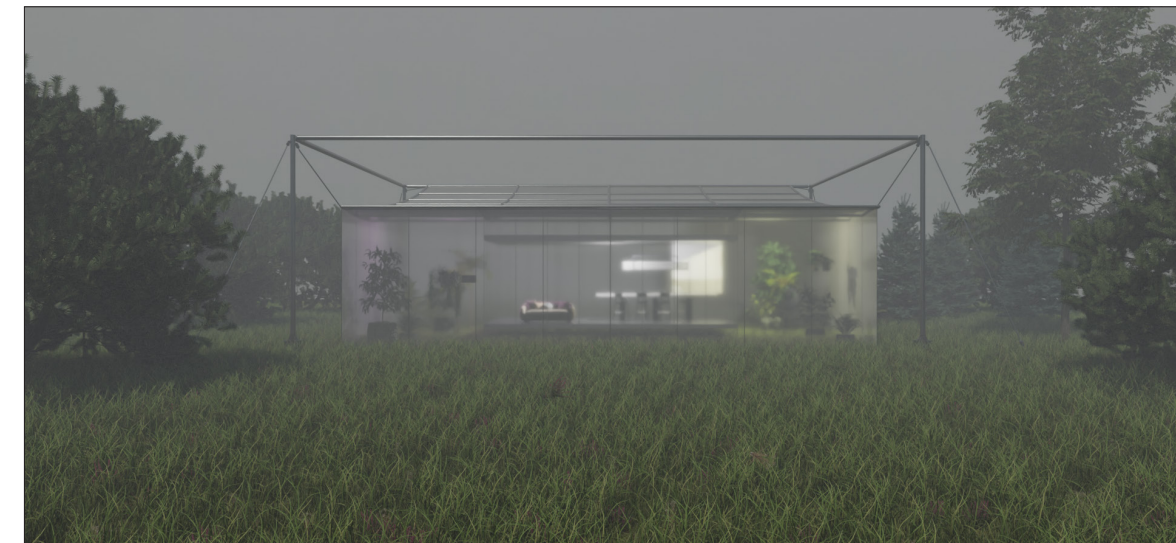
An entirely transparent dwelling frequently encounters challenges with heat gain. One straightforward solution involves the addition of adjustable shading mechanisms positioned overhead.

13b

Transforming into a greenhouse offers benefit like insulation and renewable energy sources, environmental sustainability. Despite the energy benefit, it blurs the boundary between artificial and nature. Create a holistic approach to sustainable living.



a



b

13

Unveil

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14

15

16a

This initiative seeks to rectify the current situation where the public entrance is not readily discernible like a black box. Cooper Hewitt is fenced off and The proposal aims to construct a street traversing the building, establishing a linkage between the bustling 5th Avenue and the museum. In the video, I use a character having trouble to find the entrance to express the issue.

16



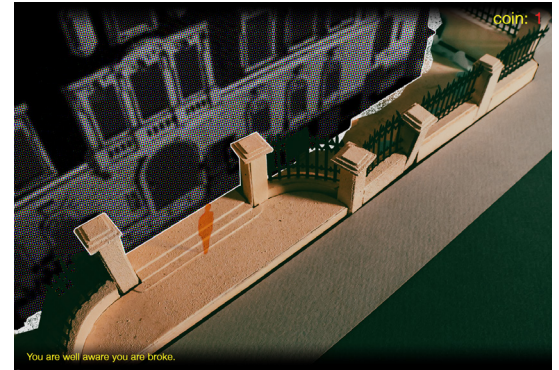
a

17d

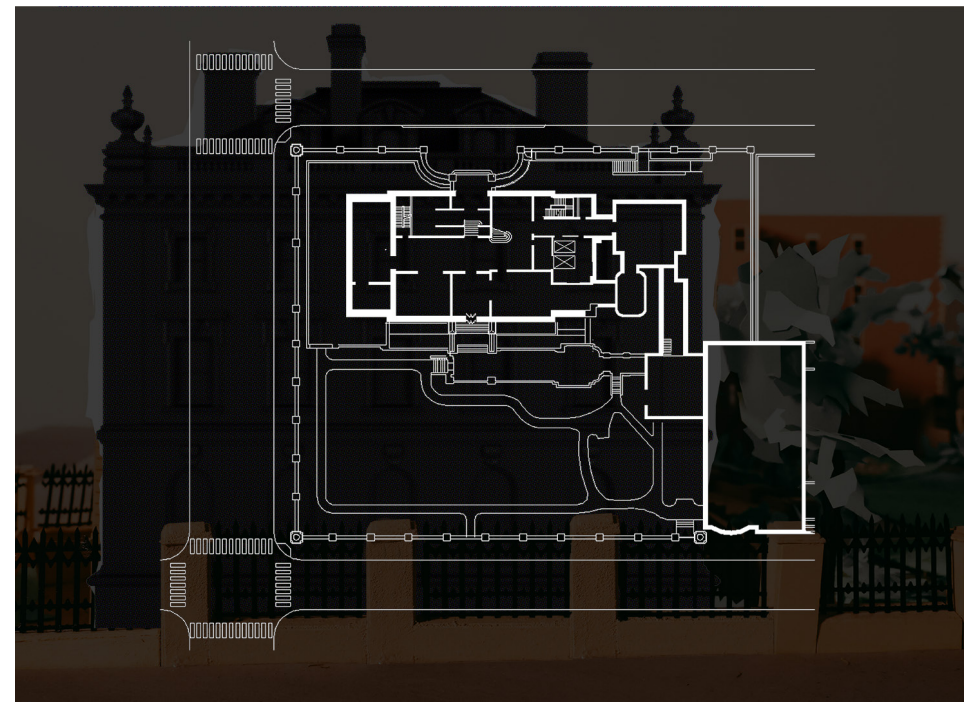
One current problem of Cooper Hewitt is its incomparable with a museum as its original function is a mansion. Current exhibitions show it is hard to let the museum part and mansion part reconcile.



a



b



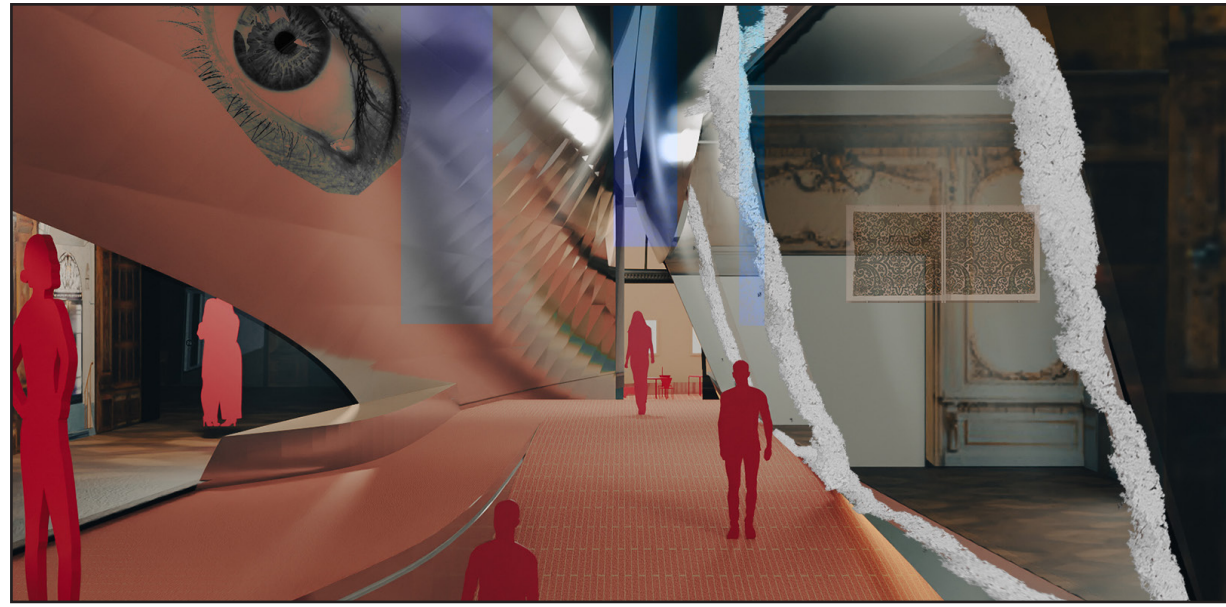
d



c

17

18b
A novel thoroughfare is introduced onto the existing structure, extending toward the lively Fifth Avenue, facilitating the passage of bicycles and ushering natural light into the interior. This transformative threshold converts a hitherto confined space into an open exterior, effectively creating a public canyon.

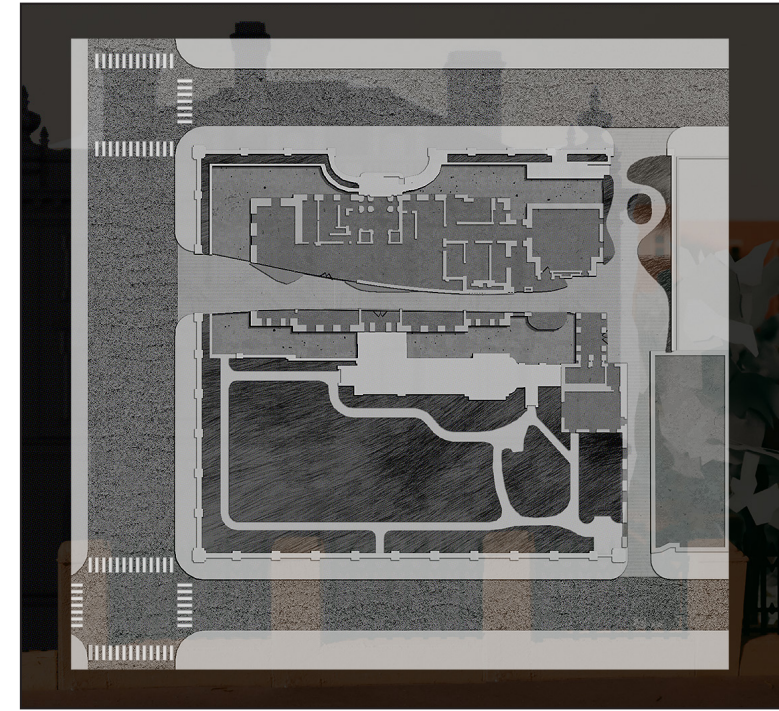


a

18



b

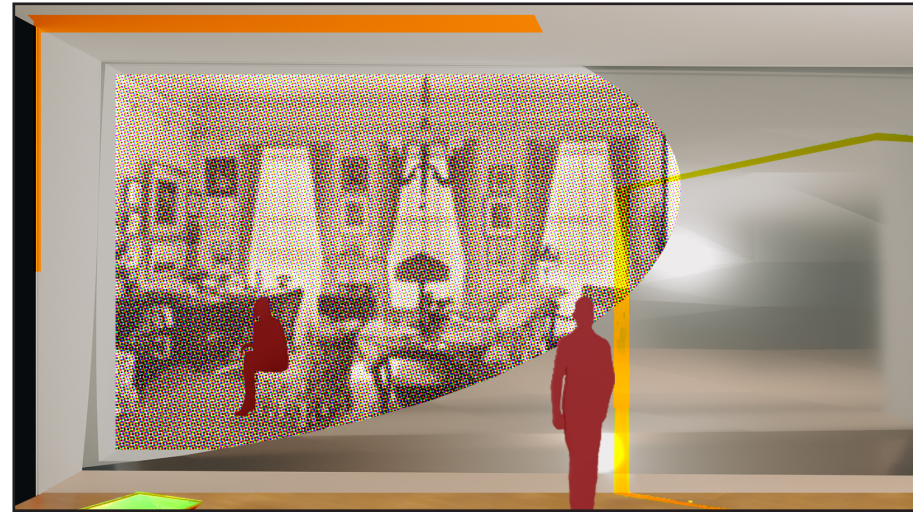


a



b

19



a



b



c

21a
 Furthermore, this design intervention encourages the public to venture into the building, directing attention to the hitherto overlooked Millard and Fox House and the café area—an extension to the Carnegie Madison. This strategic approach establishes a fresh circulation pattern for visitors, unlocking the potential of these spaces and enhancing the overall visitor experience.



a

22a,b
In addition, by cutting the museum into two parts, also functional-ly separating these two parts into old and new. So the separated two parts of the building creates an opportunity for one part of the museum to be a mansion, showcasing objects related to its original context, the other side of the museum can do more intervention on the scale of exhibition. So these two parts of the building don't have to have the same control in terms of light, temperature. And both dimensions of the Cooperhewitt are preserved.



a

22



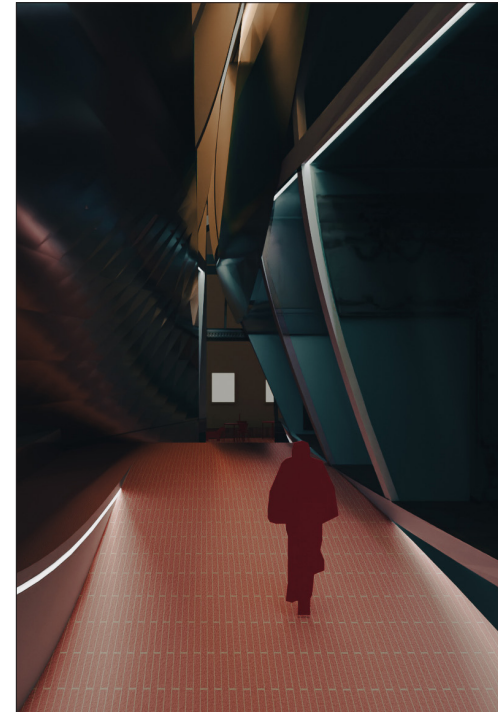
b

23a
Intervention allowing more diverse activities and events be fold in this space.



a

23



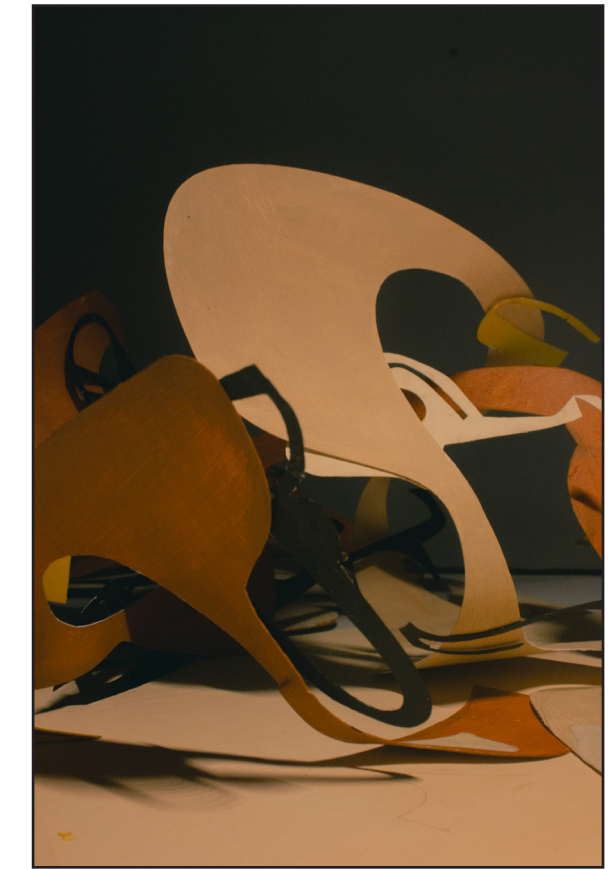
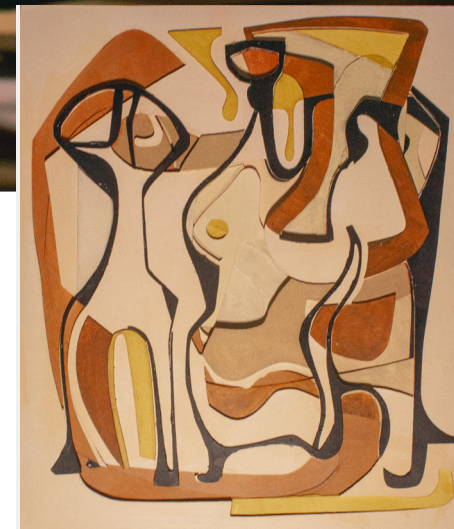
b

Roberto Burle Marx Study

The work analyzes and reinterprets dynamic "lines" in Burle Marx's creations. Through an analysis of his work around 1953, it becomes apparent that the lines overlap and cut into each other, creating an ever-changing dynamic within the picture. Combined with the garden's ever-changing quality in terms of seasons and weather, the decision was made to create a pop-up book. This transforms the static plates in the picture into a new dimension, akin to wandering through the dynamic garden itself.

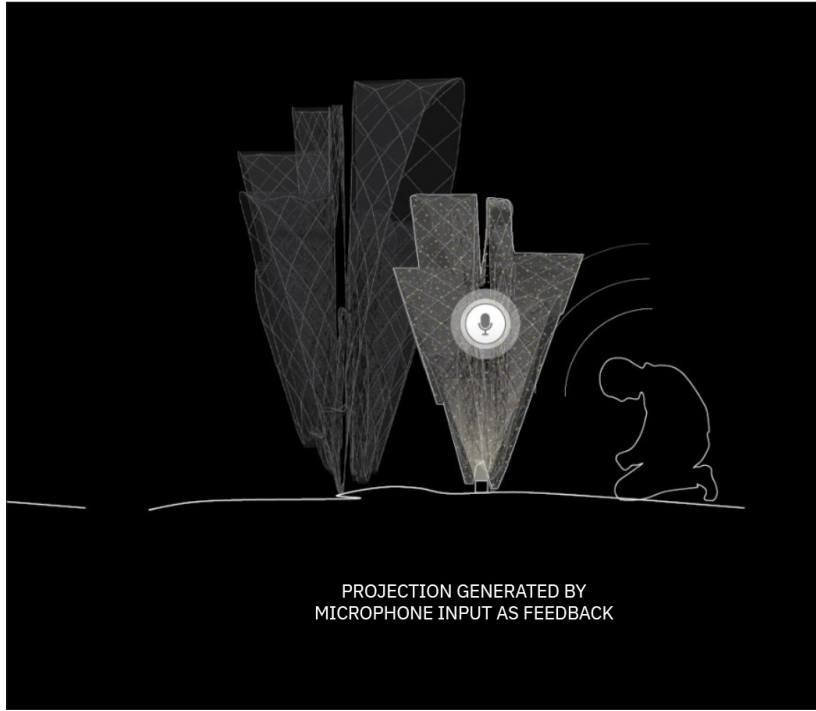
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25

Eternal Echos

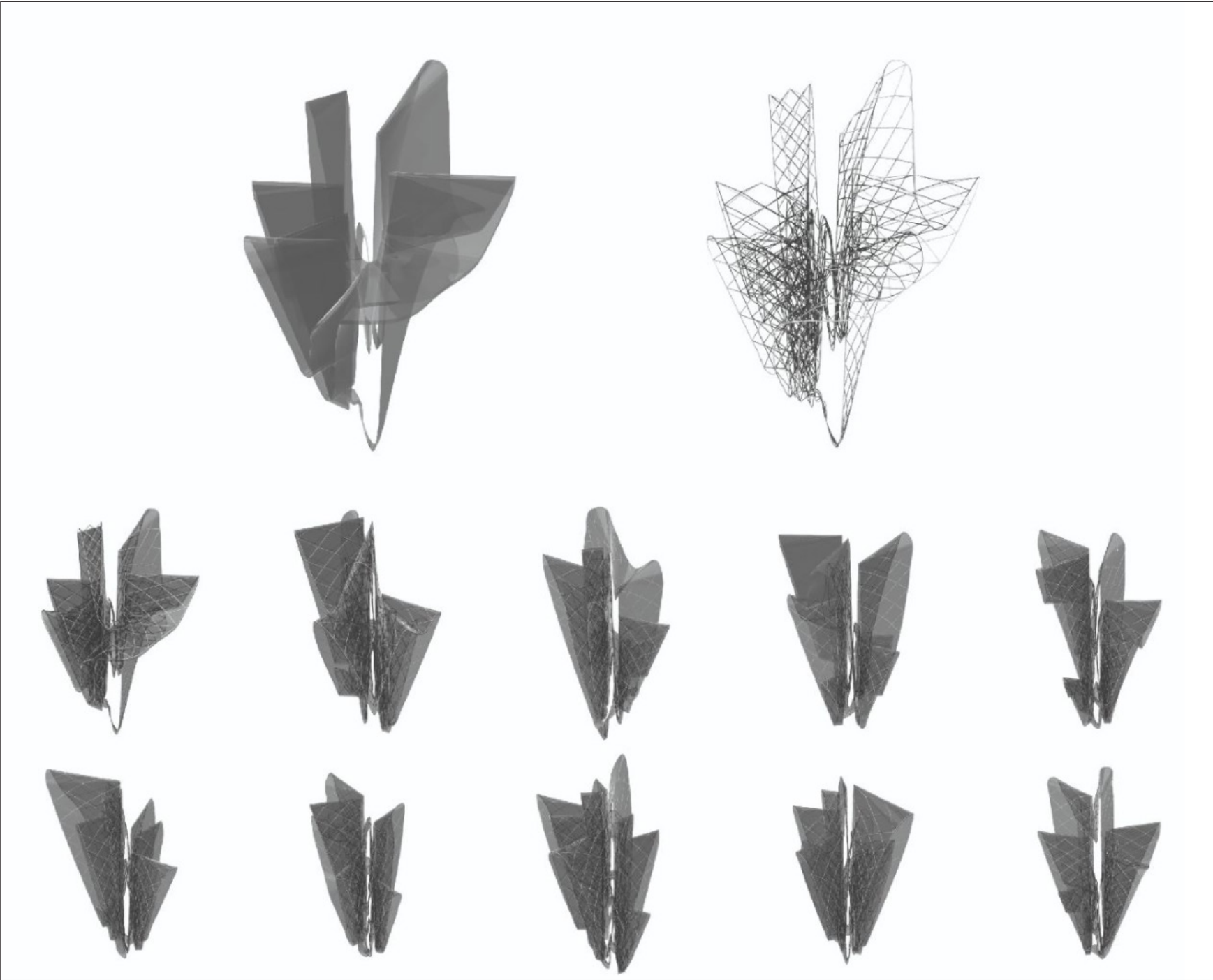


26



The project introduces an approach to memorialization by transforming personal memories into 3D sculptures, reimagining traditional graveyards as sculpture parks. Utilizing generative design technologies, this product transfers the sound of significant life events, for example: birthdays, graduations, marriages, and the birth of children—into personalized 3d forms. Our prototype reimagines the traditional tombstone by dividing its temporal structure and repurposing its elements to capture memories.

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Special thanks to my professors, my colleagues, my friends and my family for encouraging and supporting me.

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