



INFINITE GEOMETRIES

Pop up for Noguchi Akari

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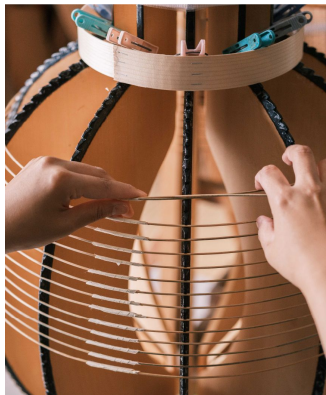
Instructor: Greta Hansen



This project is an investigation of the multiple stages of **expansion** and **collapse** abstracted from the system of construction and assembly used to create the Akari Lamps.

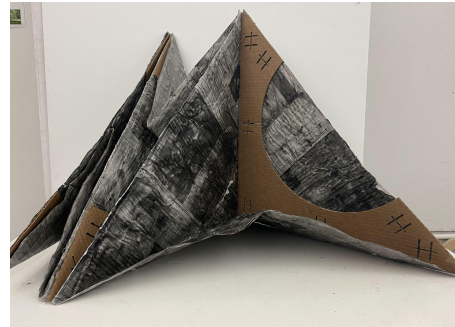
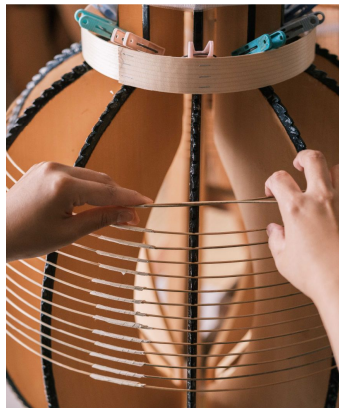
The group aims to present a pop-up design that incorporates **modularity**, **collapsibility** and **sustainable** design by combining a modular interlocking cardboard system with a newspaper skin to create a unique structure that can adapt in response to various site requirements.





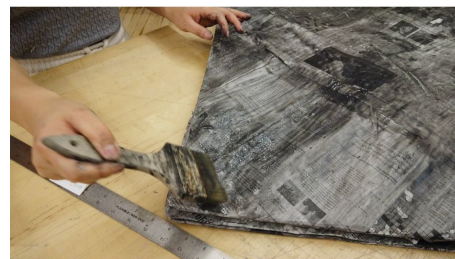
Traditional Chochin Assembly

Wood Ribs – Bamboo Ribbing –
String Attachments - Paper Panels -

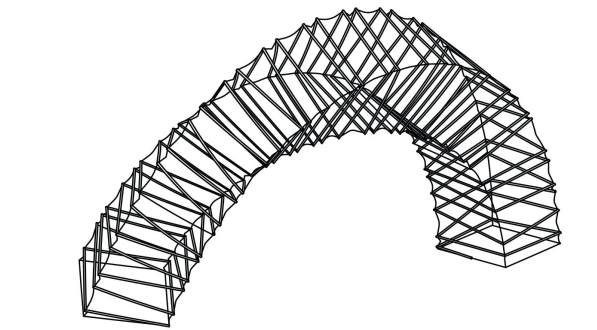
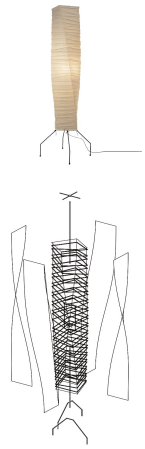


Continuous Geometries Pop-up Assembly

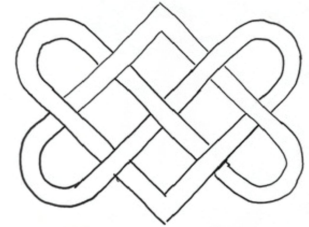
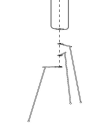
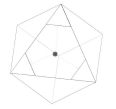
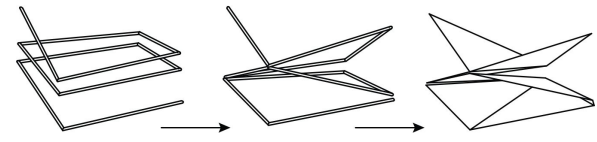
Cardboard - Newspaper - Washer - Wire



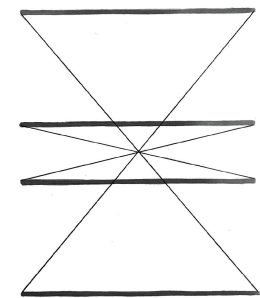
Produce Process Comparable



Flexibility

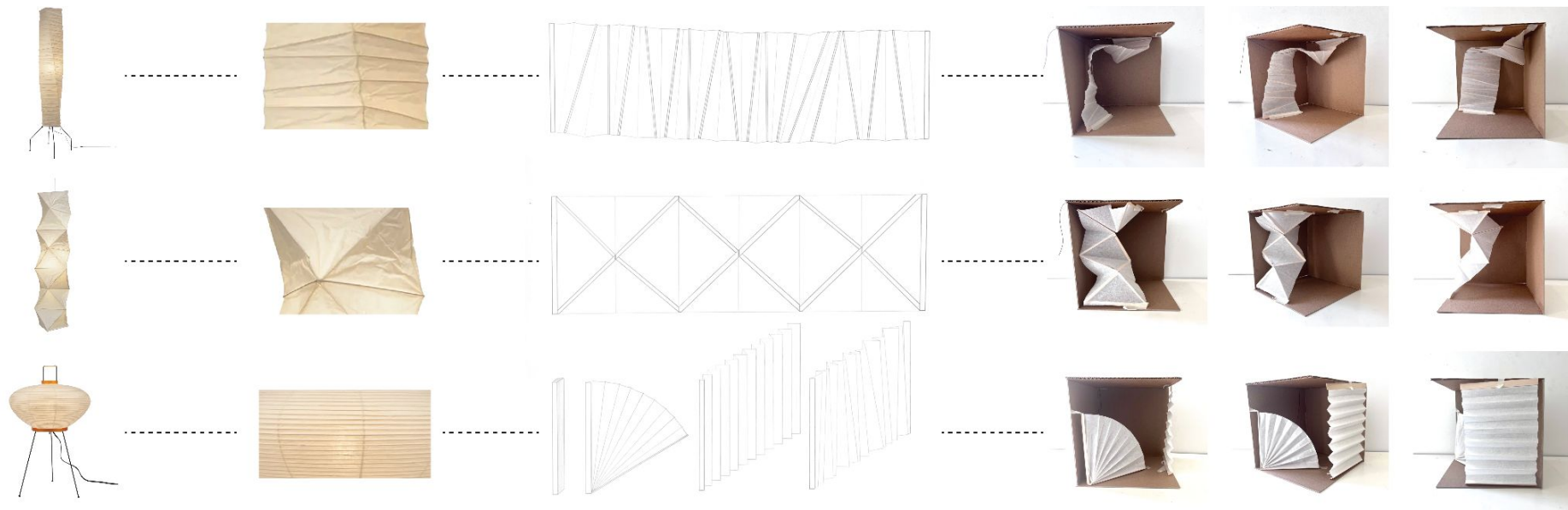


Interlocking

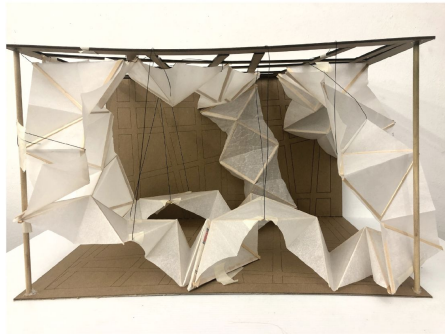
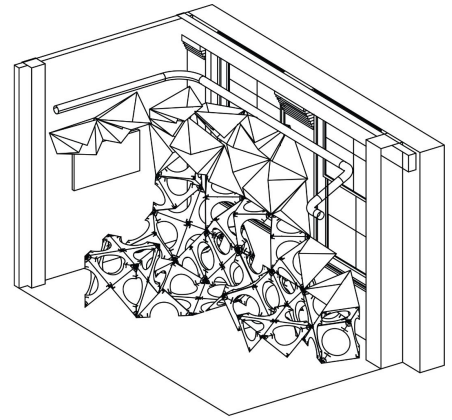
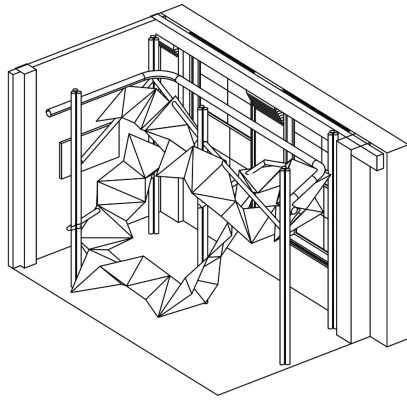
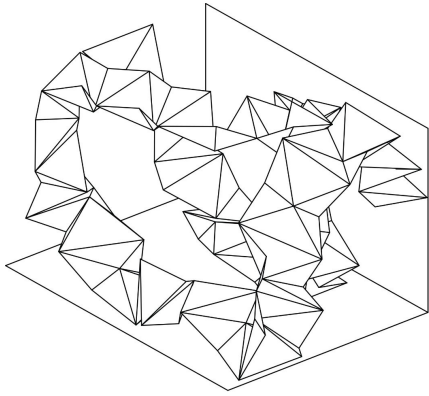


Systems Derived from Akari

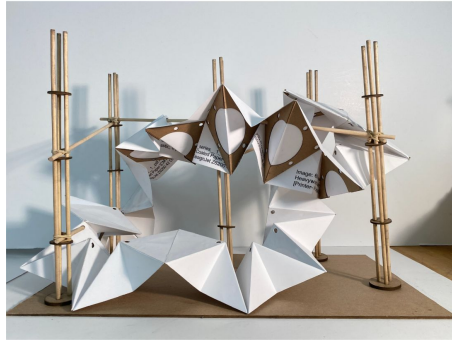
Expandability/Collapsibility



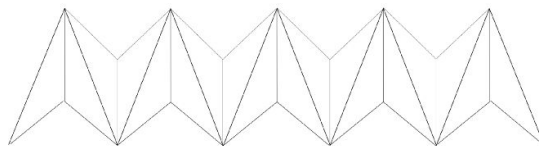
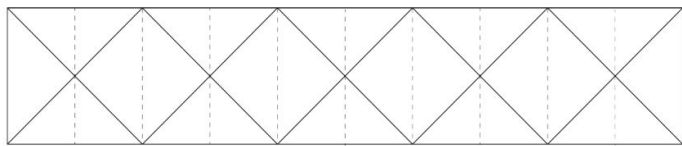
Concept Development ----- Diagrams



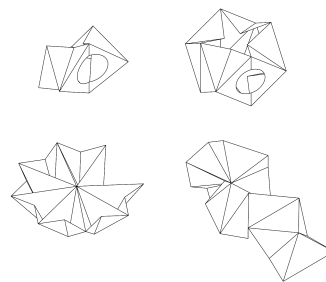
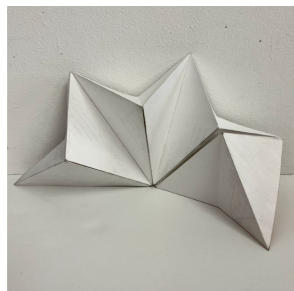
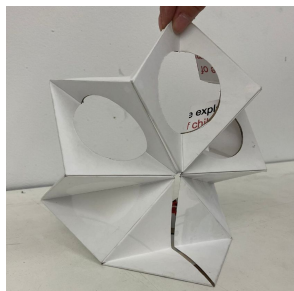
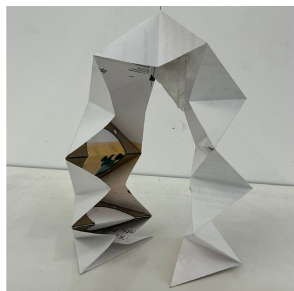
Structure Process



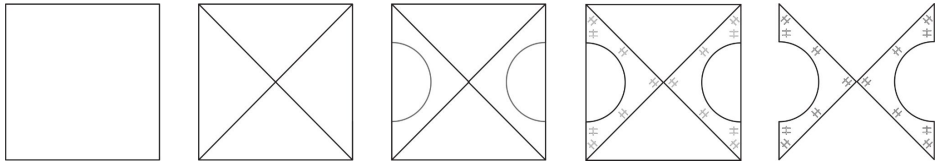
Final Process



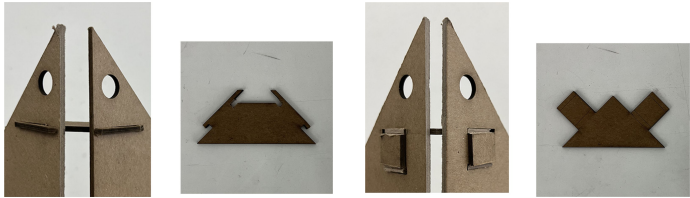
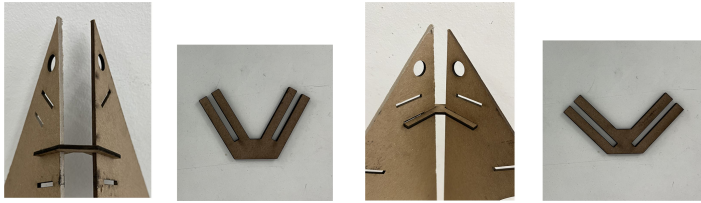
Paper Folds



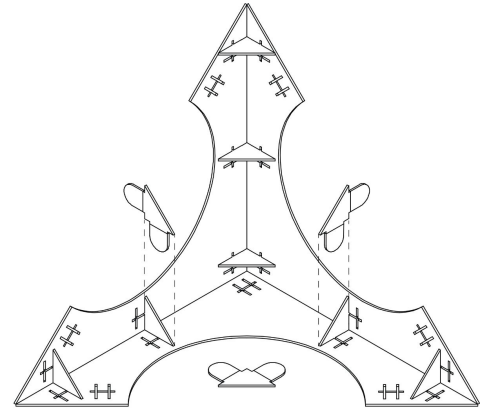
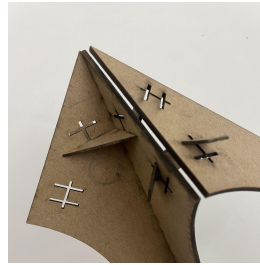
Module Fold System



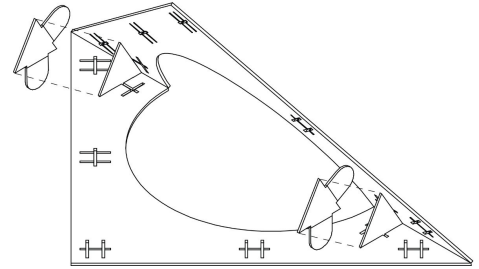
Module Development System



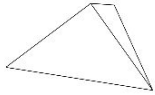
Connection Development System



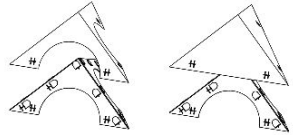
Assembly Details



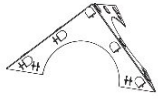
Newspaper only to block daylight from windows.



Newspaper connecting to the frame.

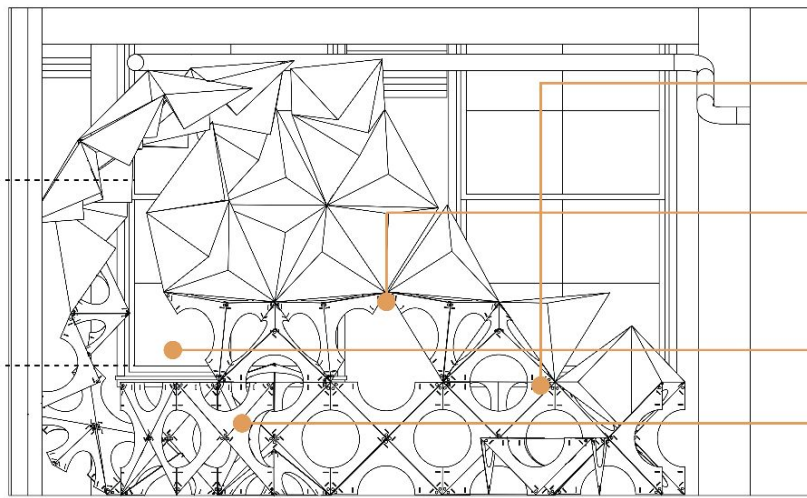


Frames to make the structure stable.



9 ft

4 ft
Below Window Frame

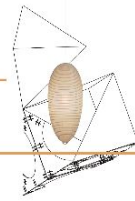
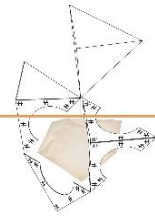


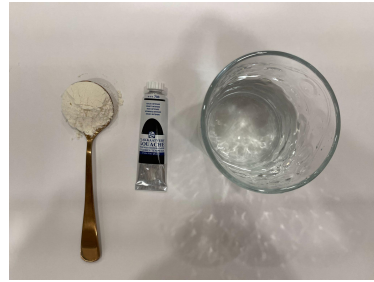
Hanging Space

Support for Table Akari

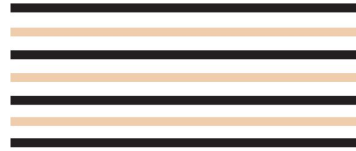
Backdrop to Block Daylight

Space for Floor Akari





Flour+Gouache+Water



— Mixture of Flour, Gouache and Water

— Newspaper

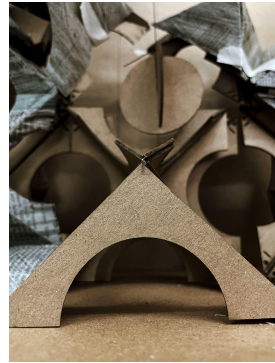
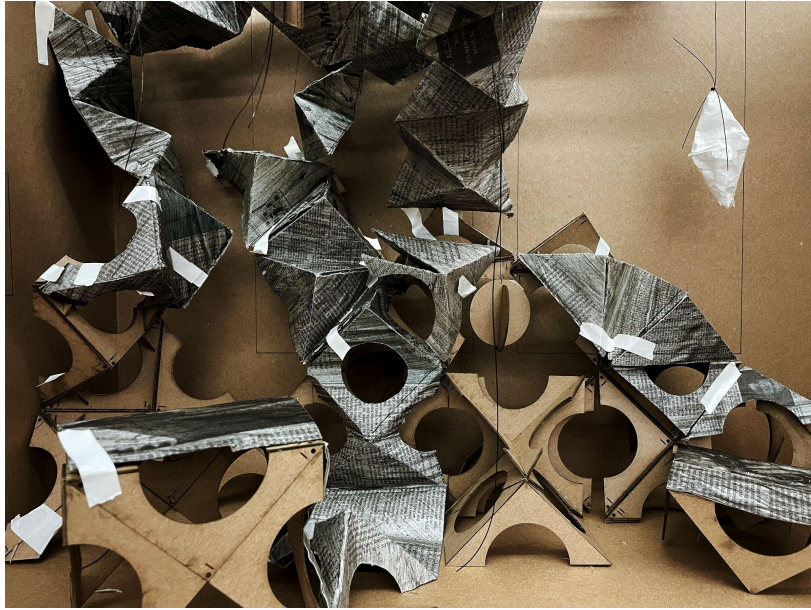


Mix and Heat

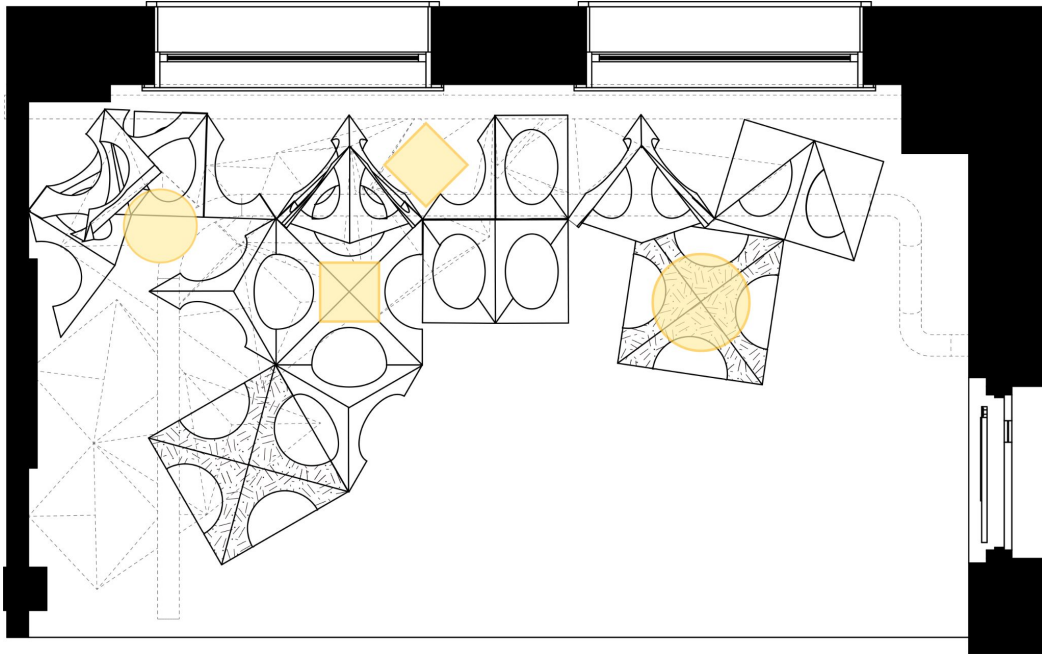


Reused Newspaper

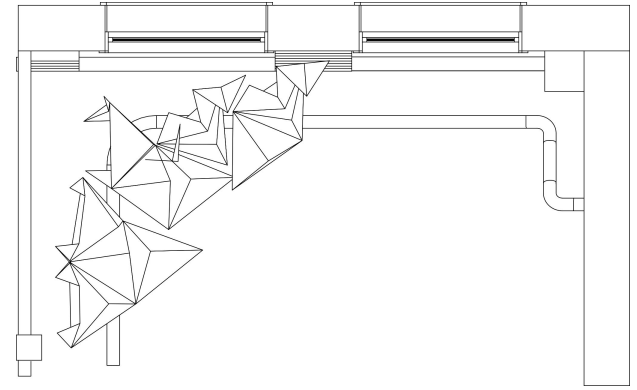




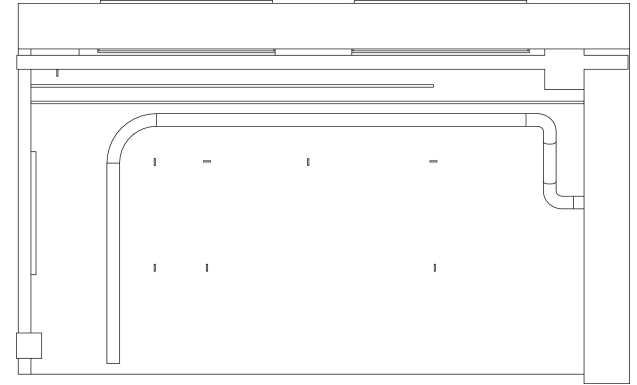
Final Model



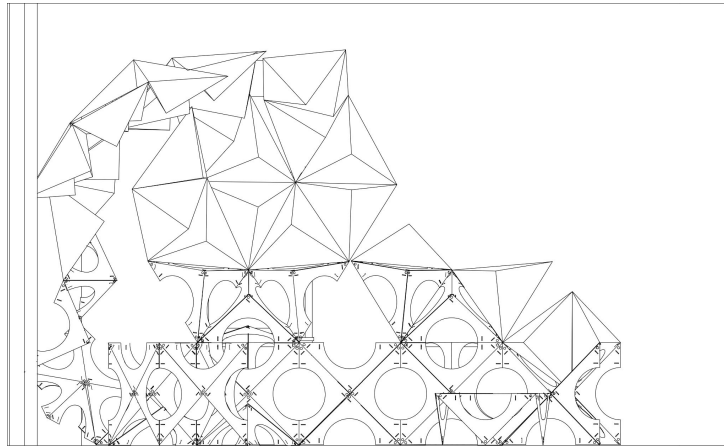
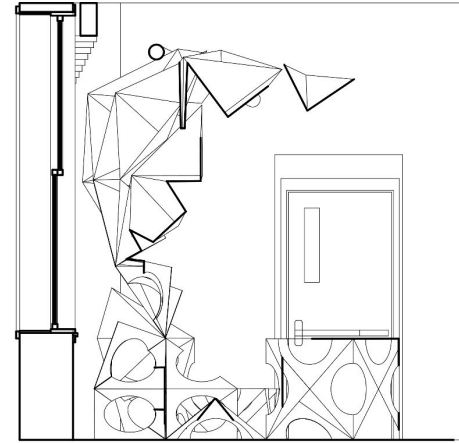
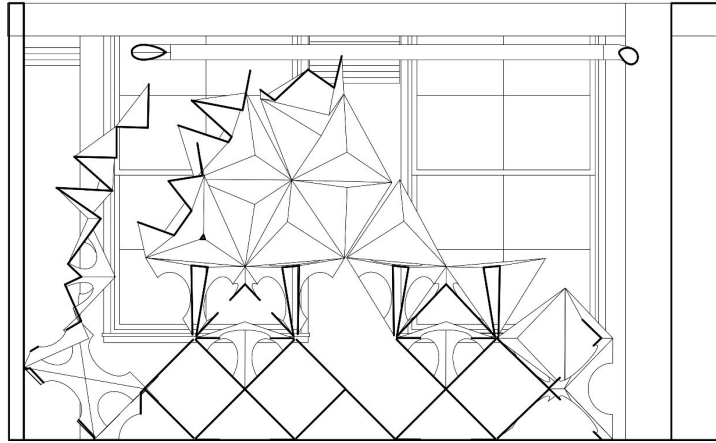
Plan



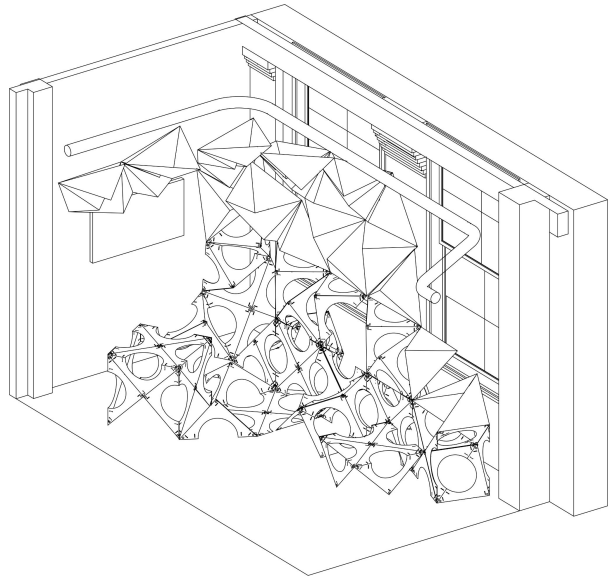
RCP



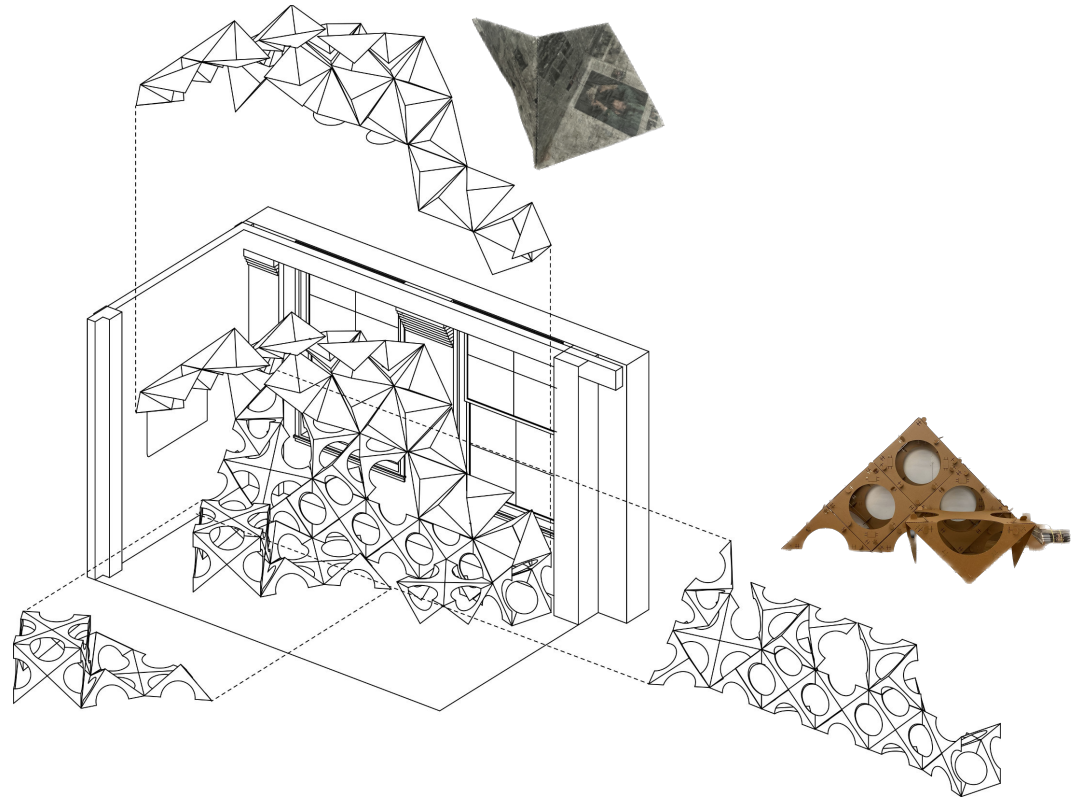
Section 1



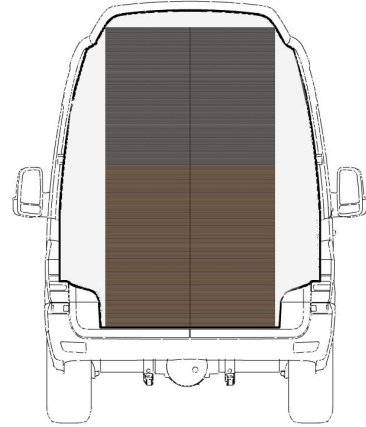
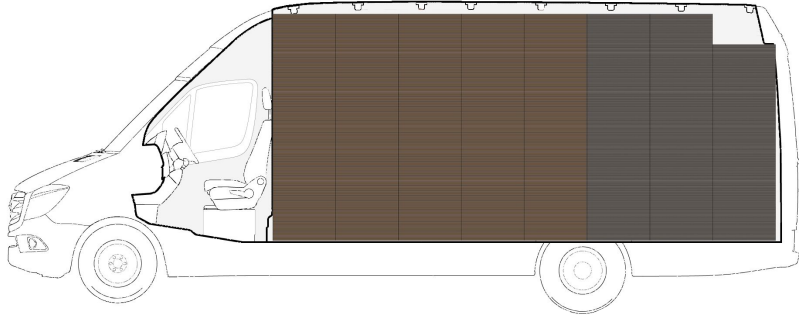
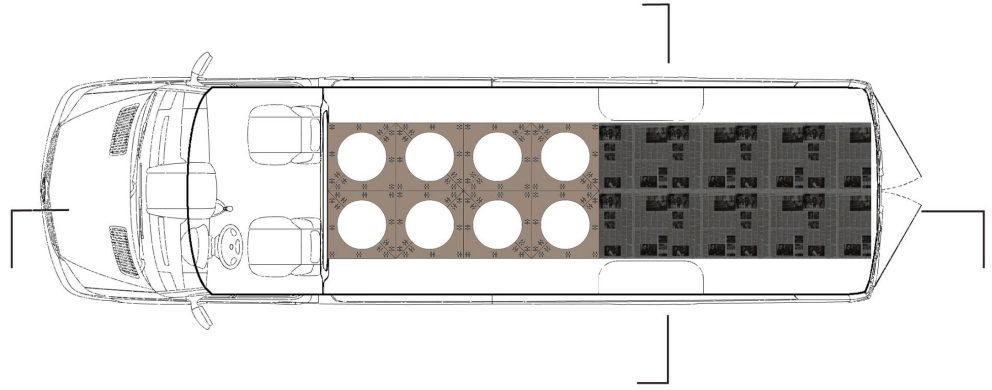
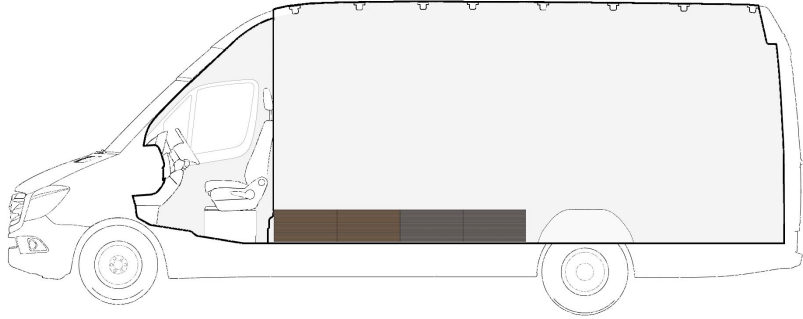
Section 2

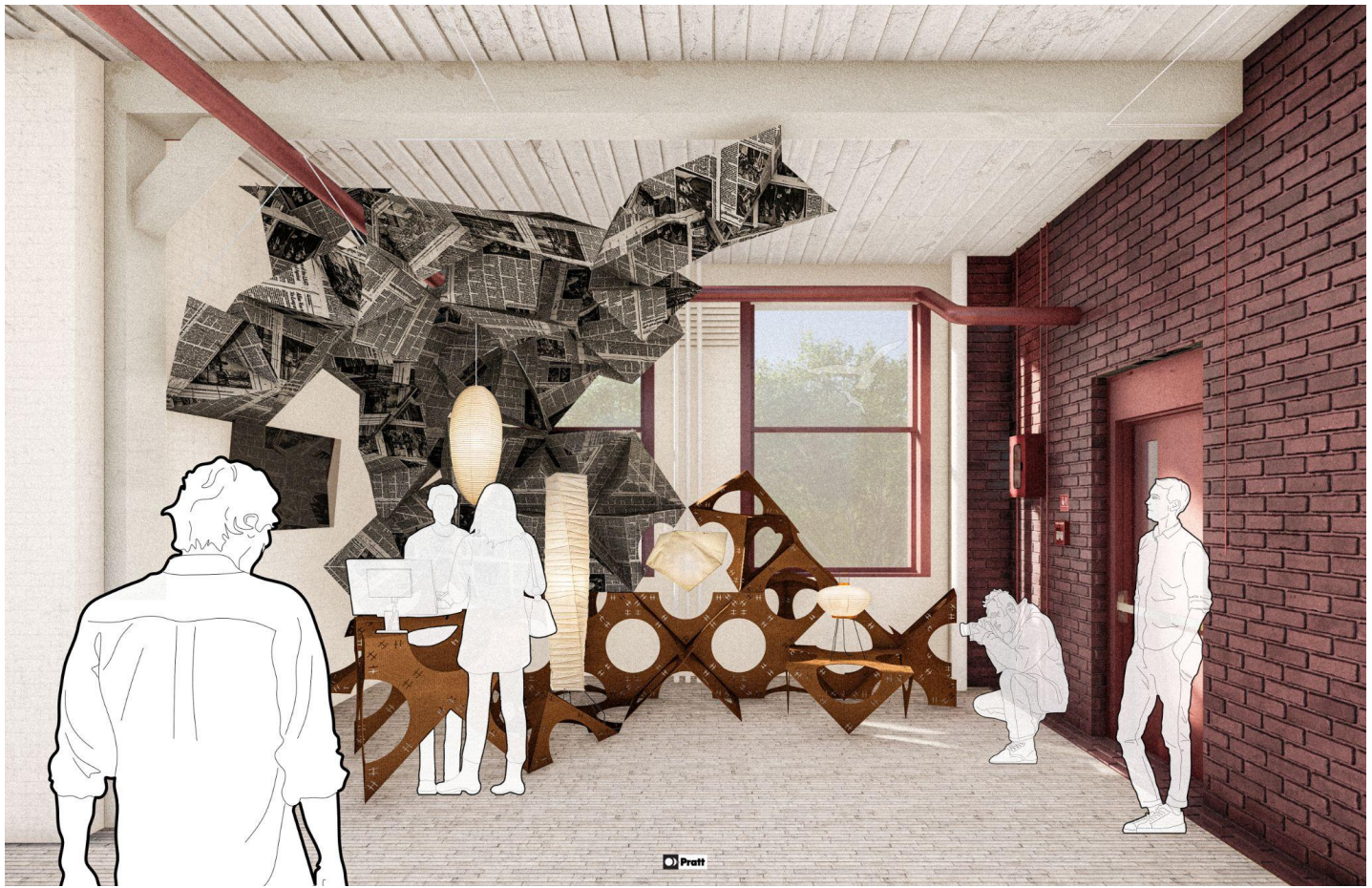


Isometric Axon



Exploded Axon





Technical Drawings -----Renderings



Delight and Thrive