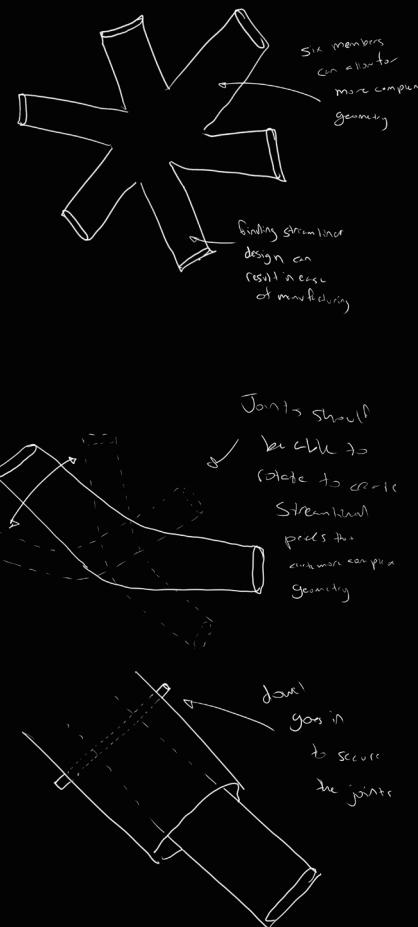
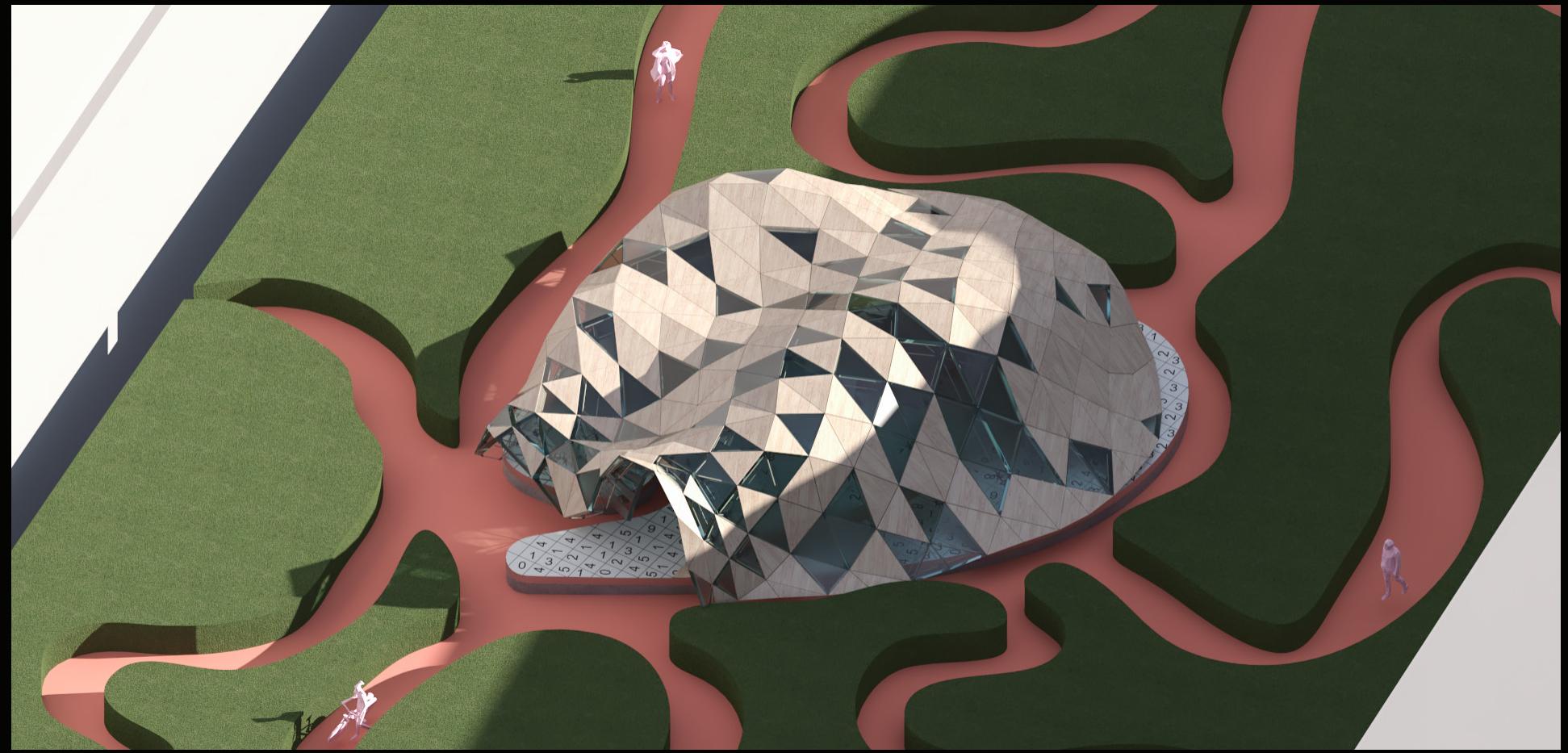


Located in the Numbers Garden, Lucid aims to create a quiet environment where people can read or take a nap. On the facade, two zones are created by determining the distance between the panels and the sun in turn creating a reading and sleeping area. The reading area requires more light and therefore uses more transparent panels while the sleeping areas use more opaque and translucent panels in order to remain darker. Additionally, the inner facade replicates the feel of its exterior counterpart however slopes into a sleeping and resting area formed to comfortably fit the human form.

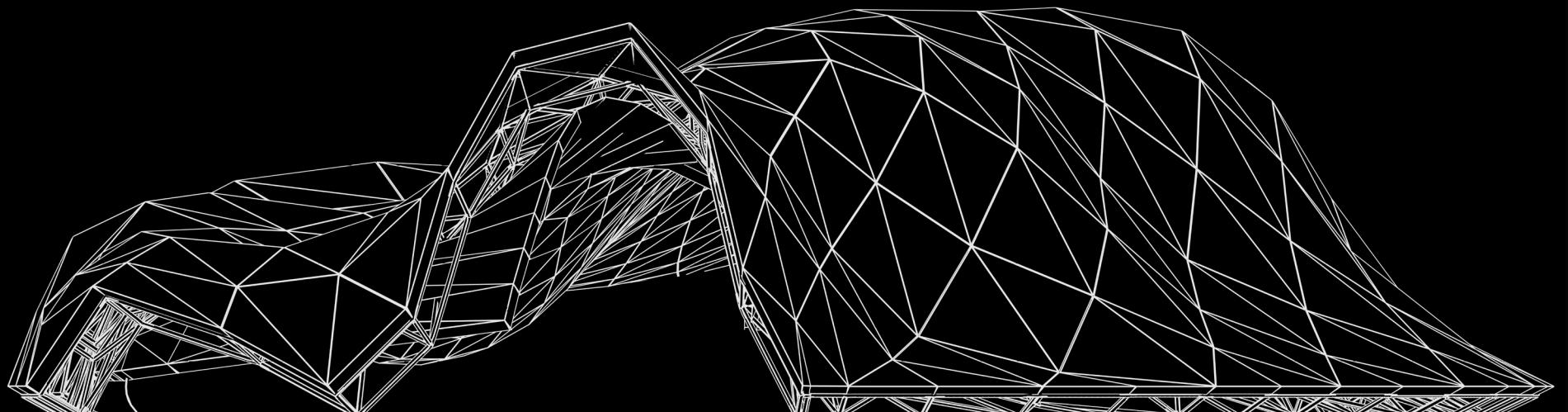
The space frame consists of joints that connect six members in order to create the intricate form. The pipes interlock with the joint through dowels to secure the pieces in place. The triangular modules of the two layers of the space frame are connected with vertical members in the center of the joint, allowing for two sets of facades to be attached to both the exterior and the interior of the structure. Varying amounts of opaque, translucent, and varying panels are placed around the structure, letting in more light depending on the program.



Initial Sketches



Bird's Eye

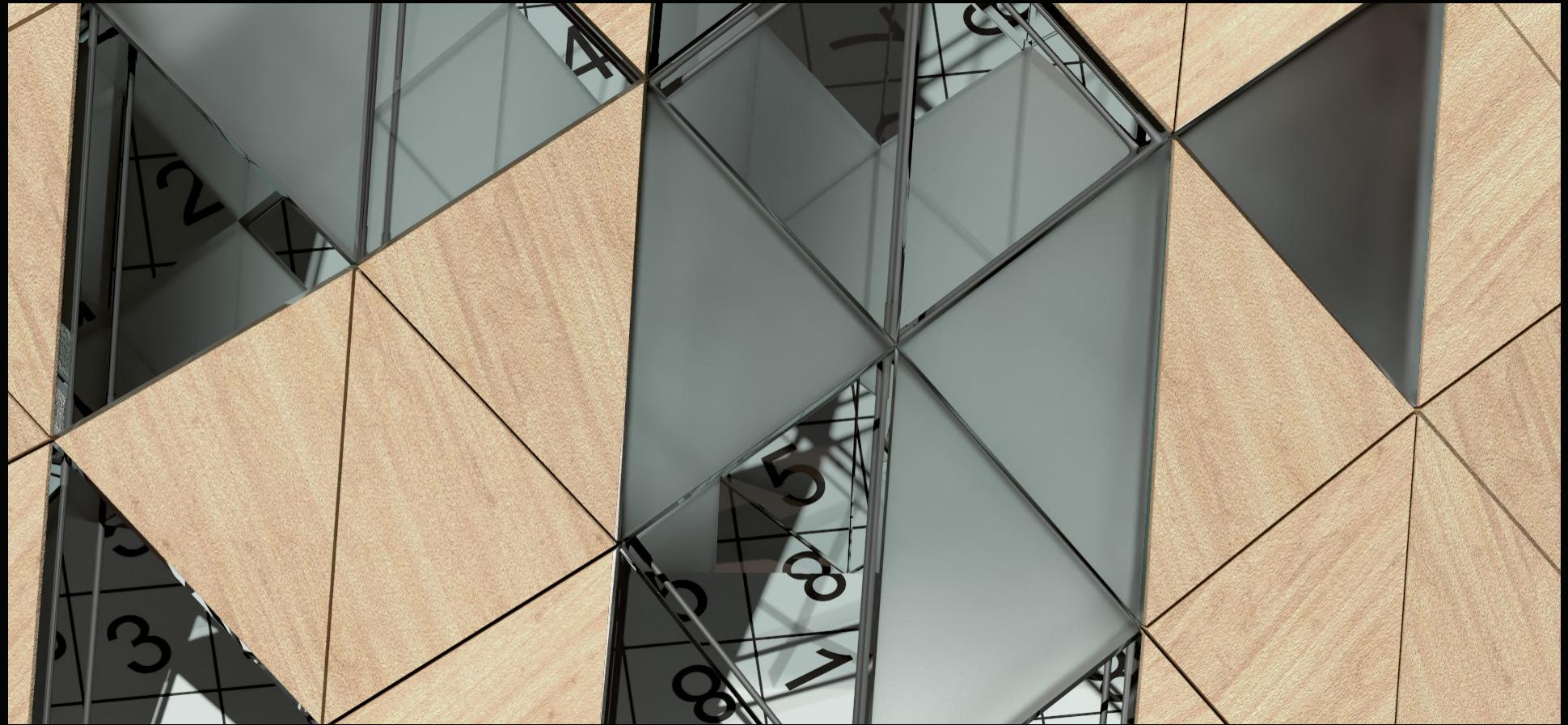


Elevation

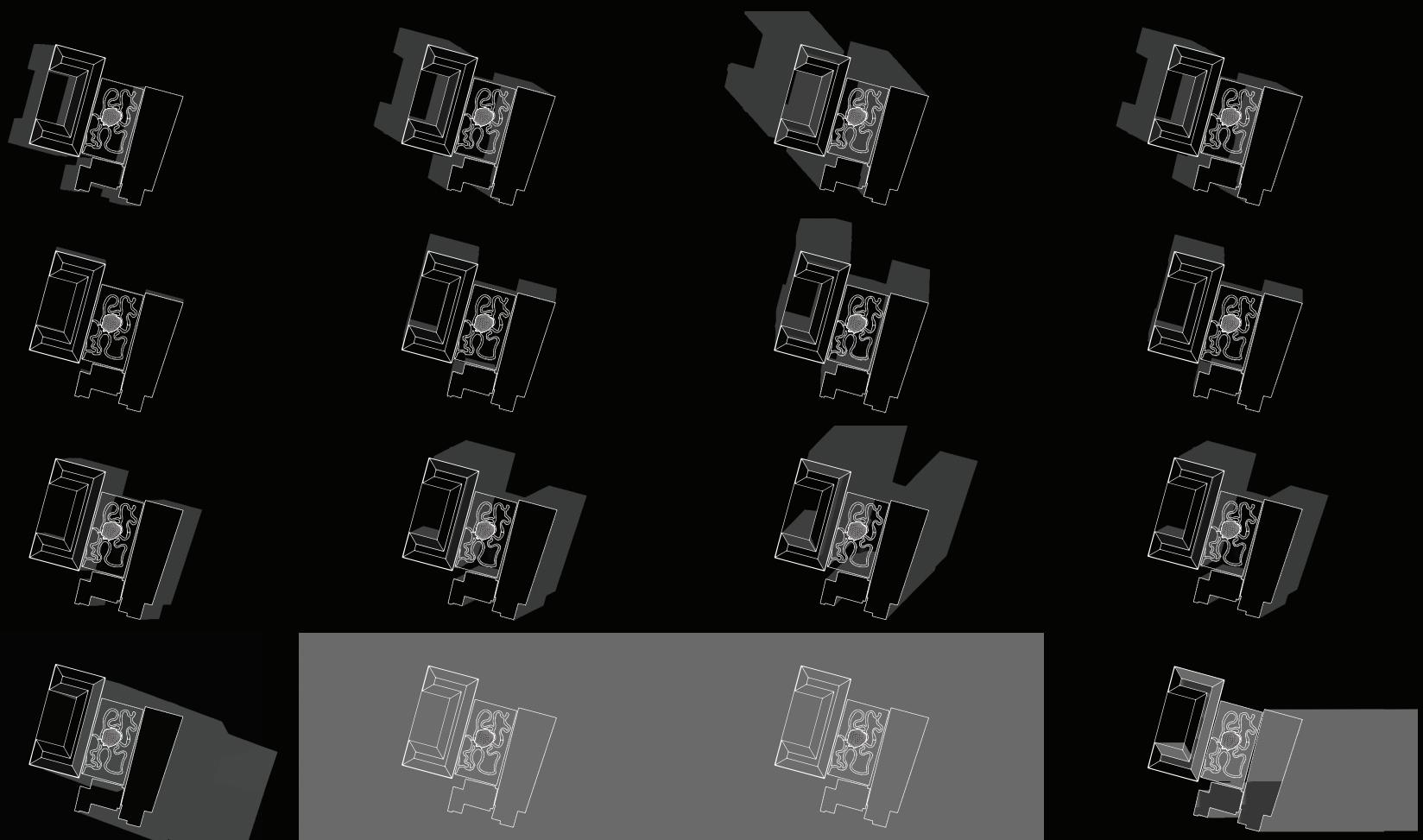
Lucid

M6- Distributions

Carleigh Cusick and David Warfel
Fundamentals of Computational Design, Spring 2022

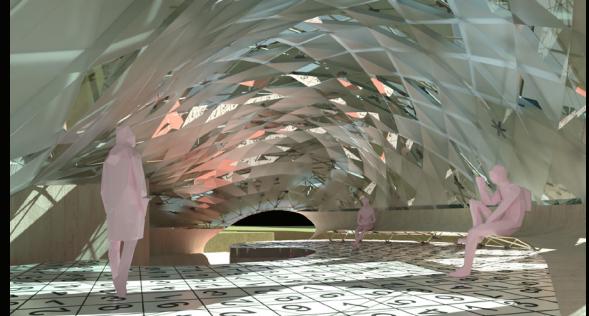


Materiality Render



Shadow Matrix

Summer Solstice: 9:00AM



Autumn Equinox: 9:00AM



Winter Solstice: 9:00AM



Summer Solstice: 3:00PM

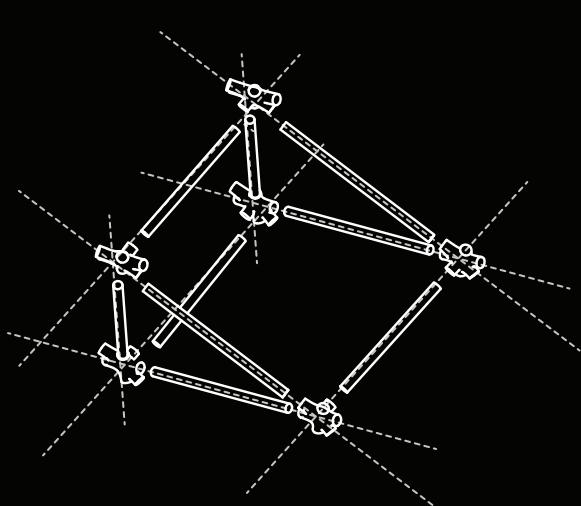
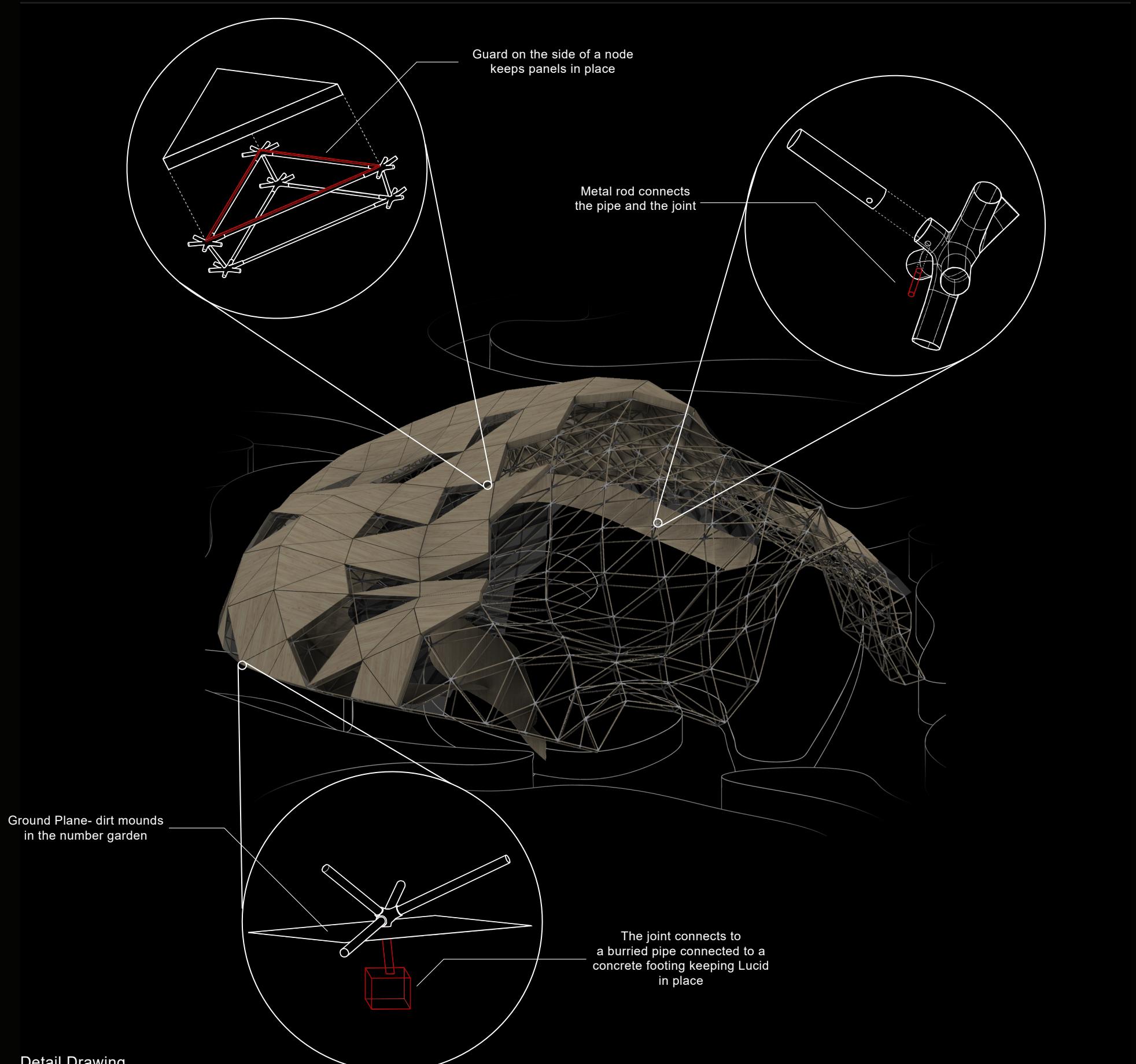


Autumn Equinox: 3:00PM

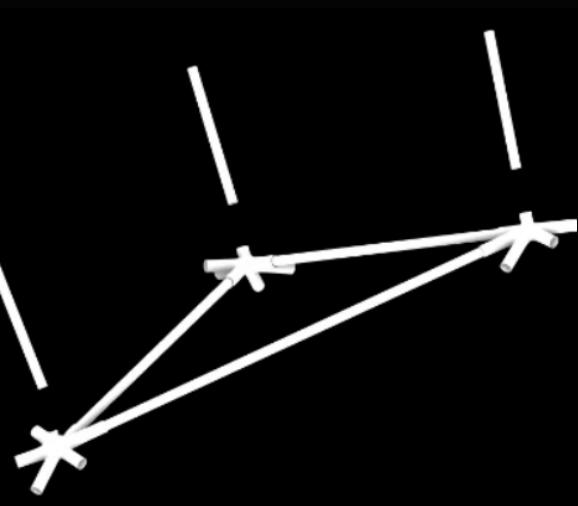


Winter Solstice: 3:00PM





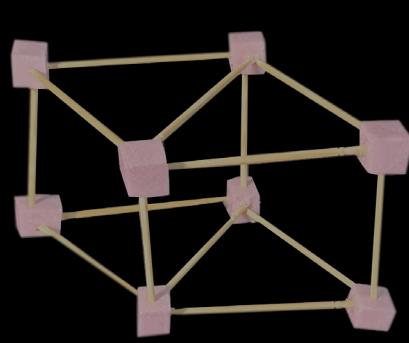
Member Assembly



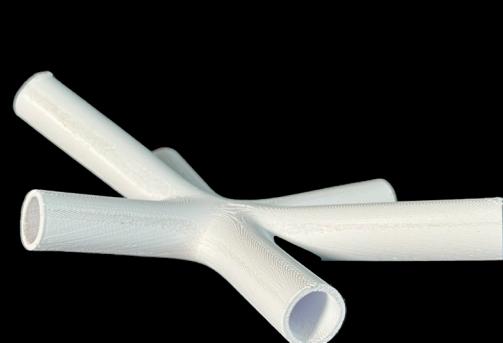
Member Assembly Gif



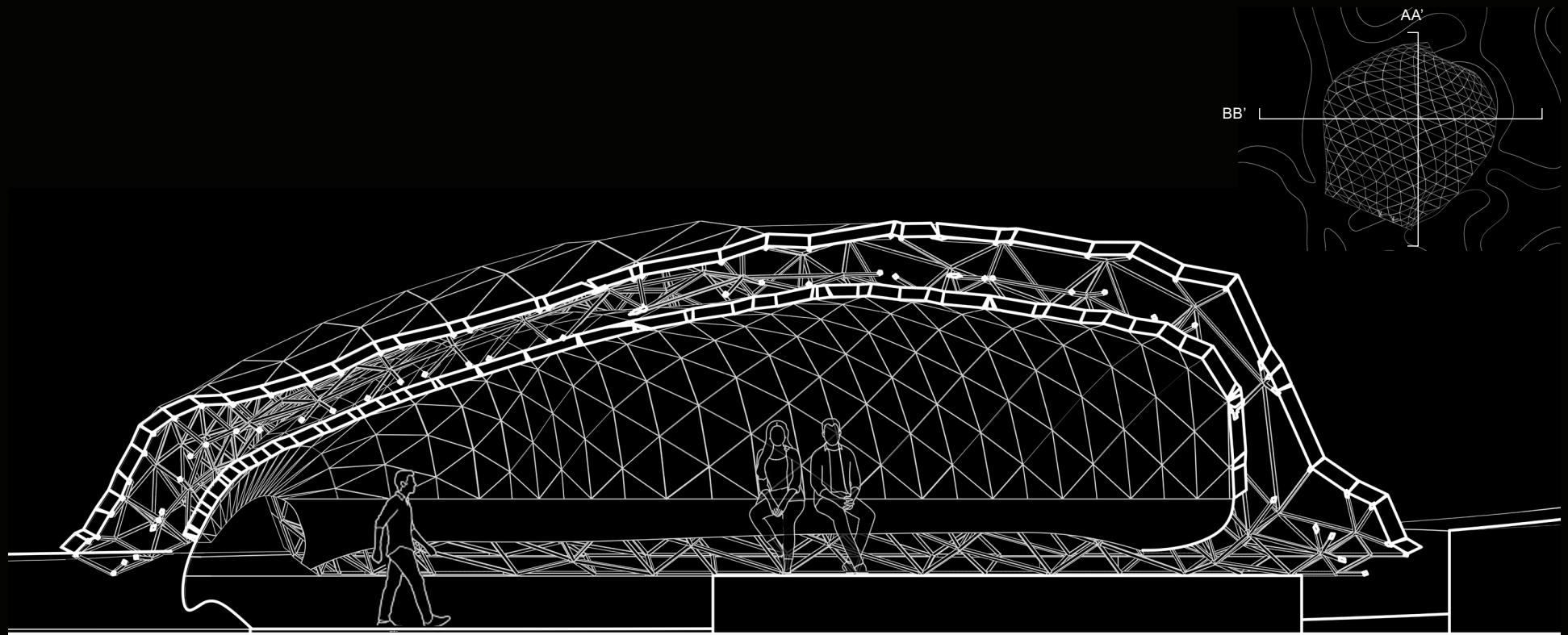
Member Rotation Gif



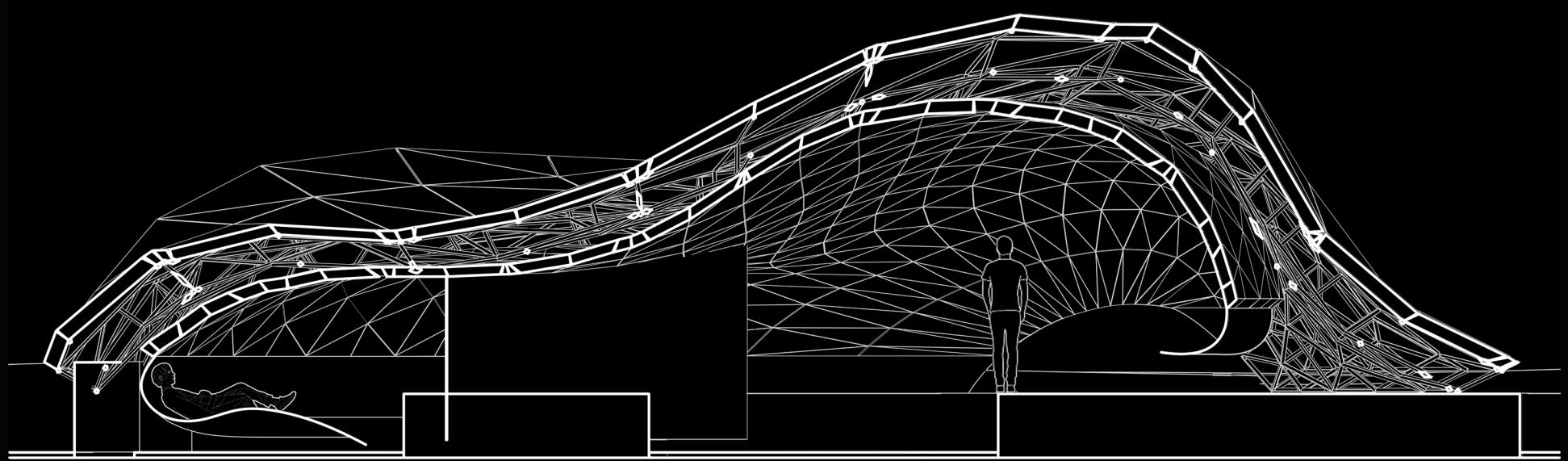
Frame Prototype



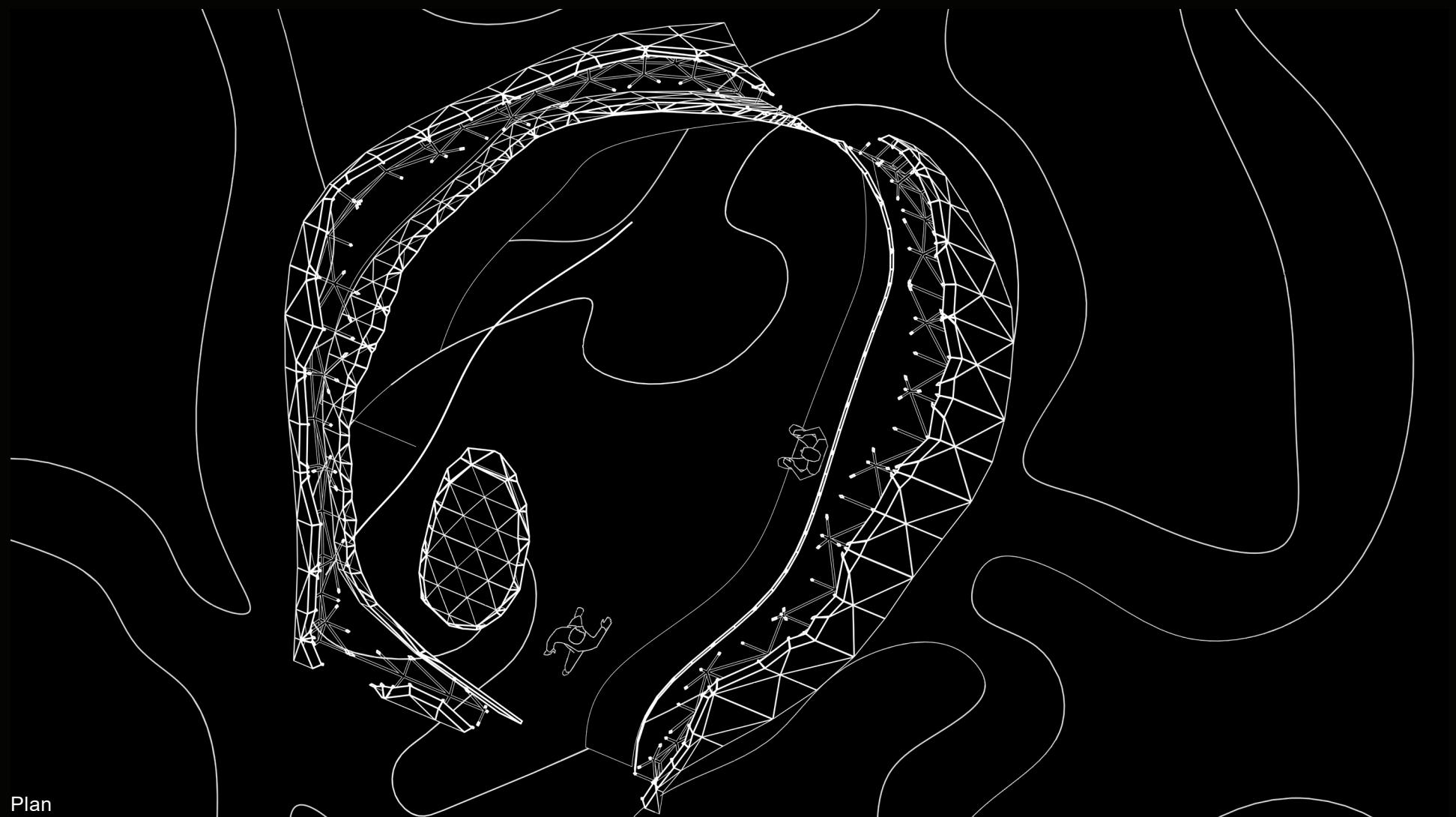
Joint Final Prototype



Section AA'



Section BB'

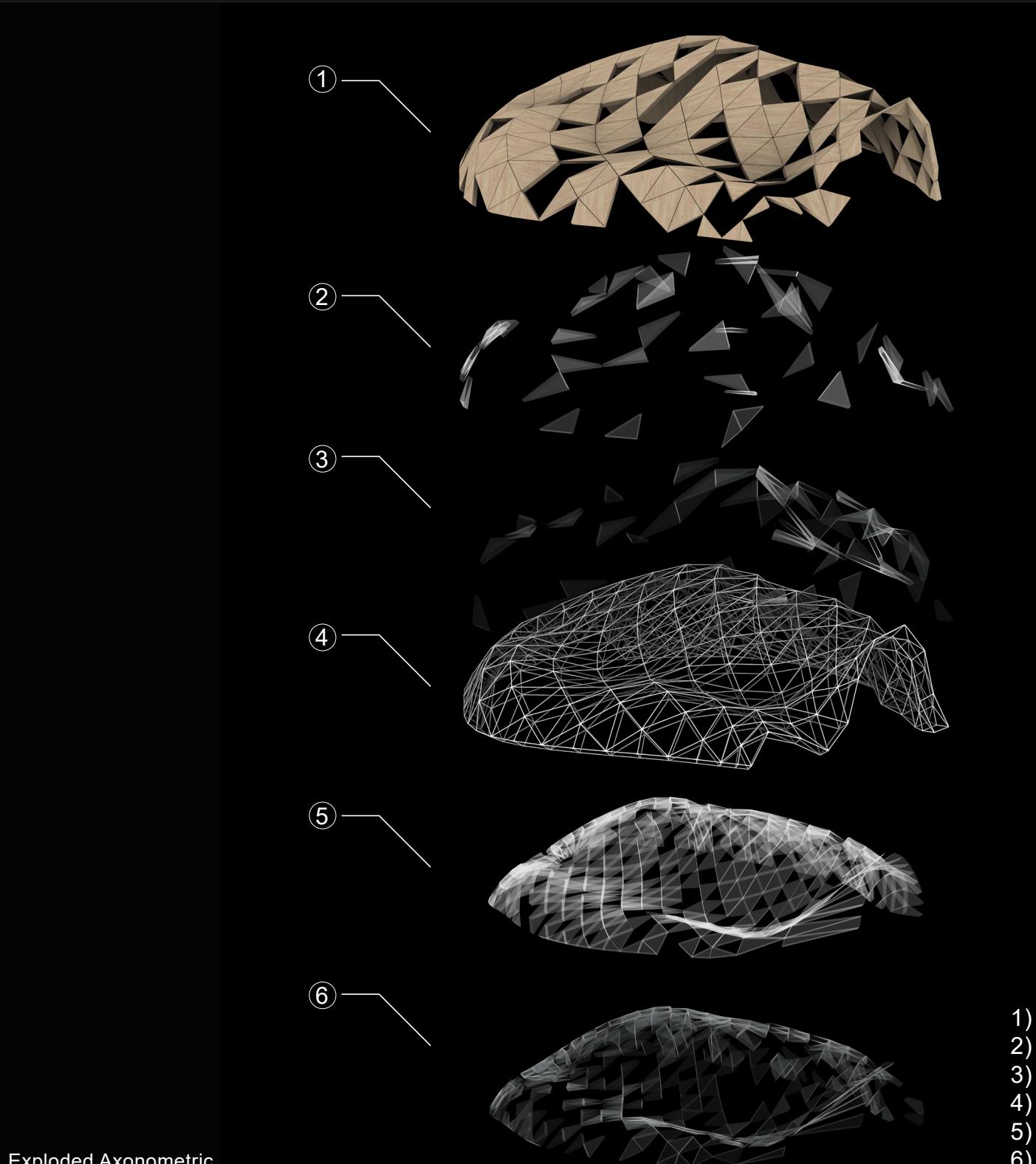


Plan

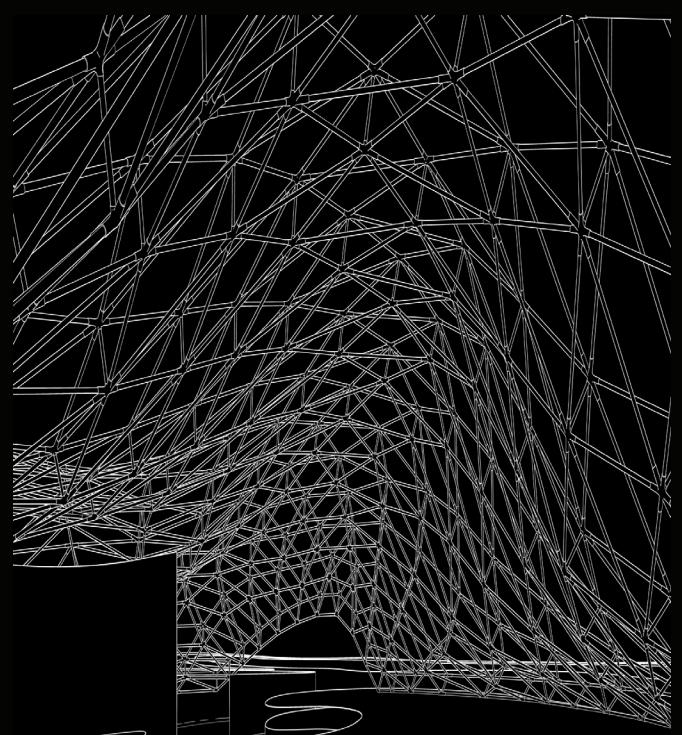
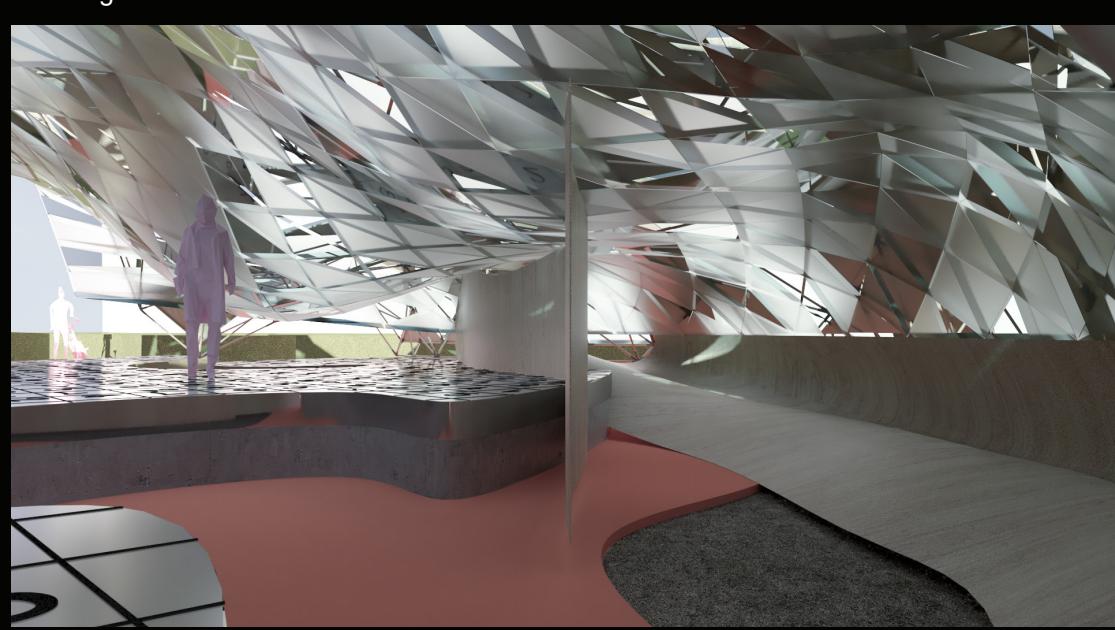
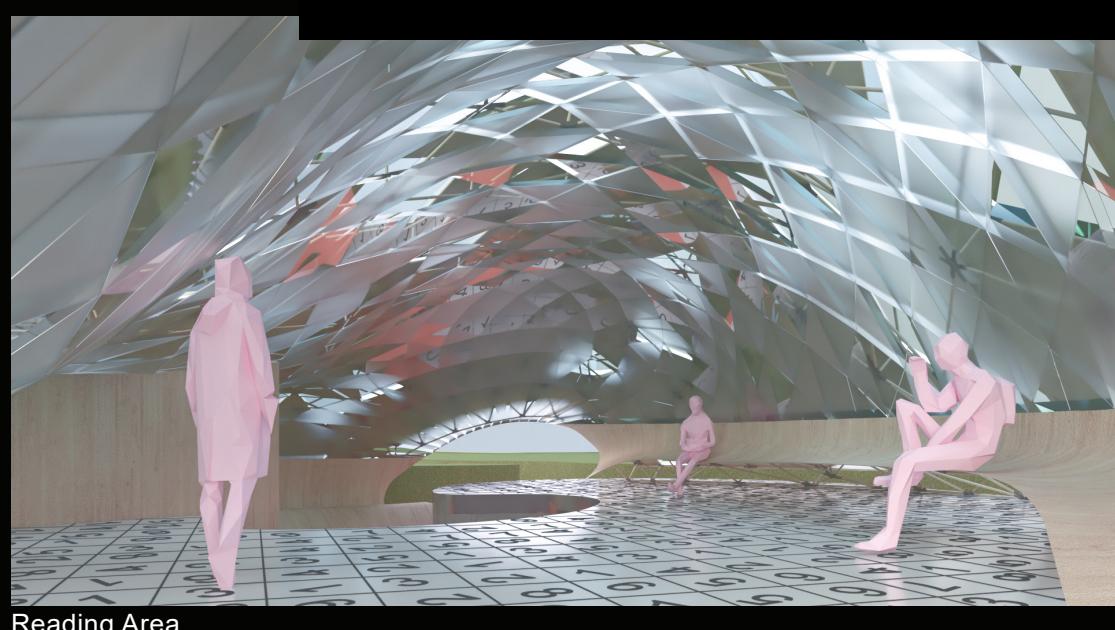
Lucid

M6- Distributions

Carleigh Cusick and David Warfel
Fundamentals of Computational Design, Spring 2022



- 1) Outer Wood Facade
- 2) Outer Translucent Facade
- 3) Outer Transparent Facade
- 4) Space Frame
- 5) Inner Translucent Facade
- 6) Inner Transparent Facade



Space Frame