

Light Meander
As Light Meander, the system can become a desert waypoint offering shelter and power needs between sites of interest, a wayfinding device and light network at night, or even backyard canopy where the system could be connected to the grid and aid domestic energy demands.

Energy Pods
As Village Pavilions known as Energy Pods, the system can be assembled as a series of inhabitable shelters, an Eden where energy collected supports users' overnight sojourn through stored power and greenhouse farming for local food production through agrivoltaics.

Green Weave
As Green Weave, the system accommodates agrivoltaic farming, the development of land for both solar photovoltaic power and agriculture, where the system energy is stored in batteries.



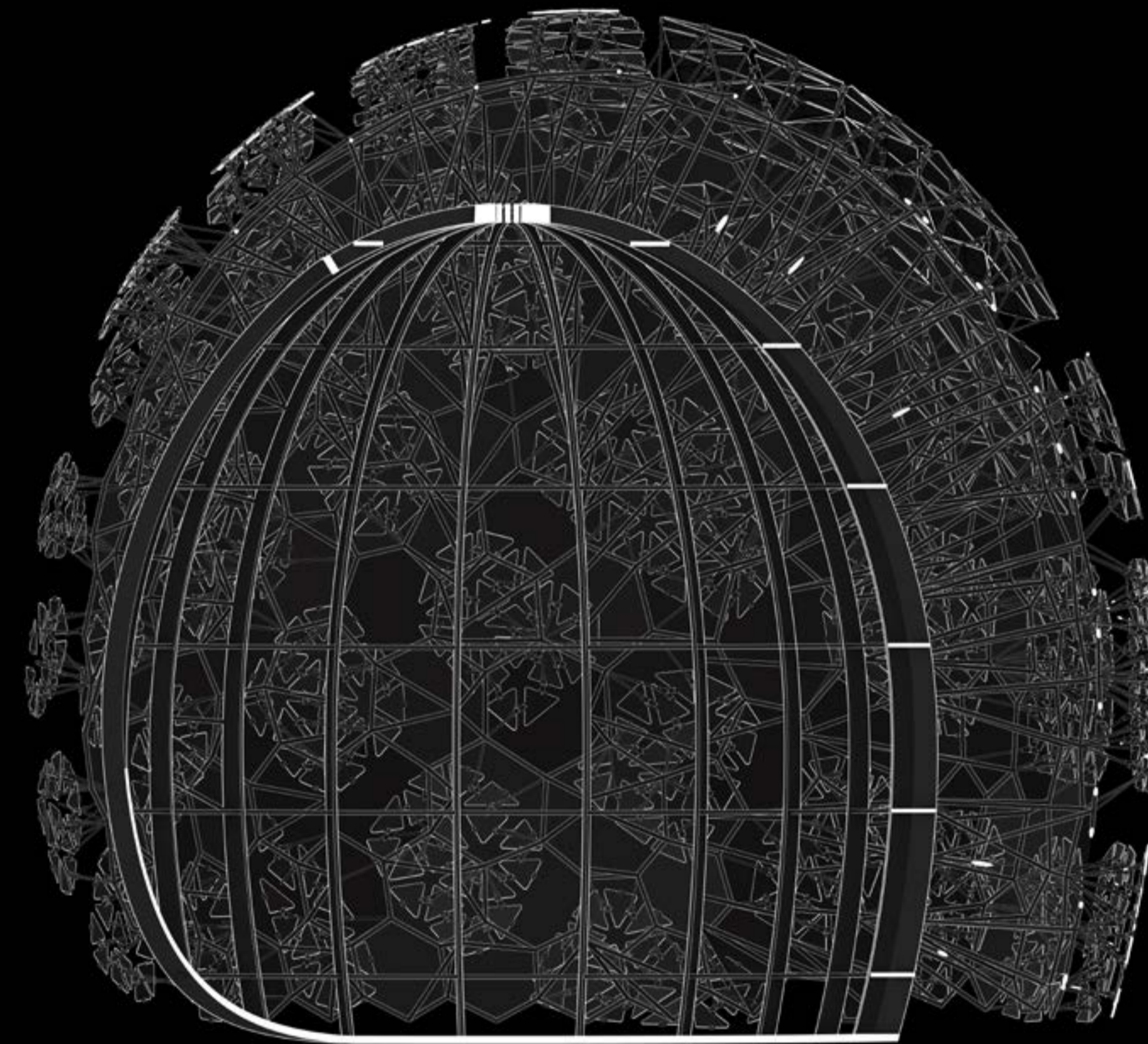
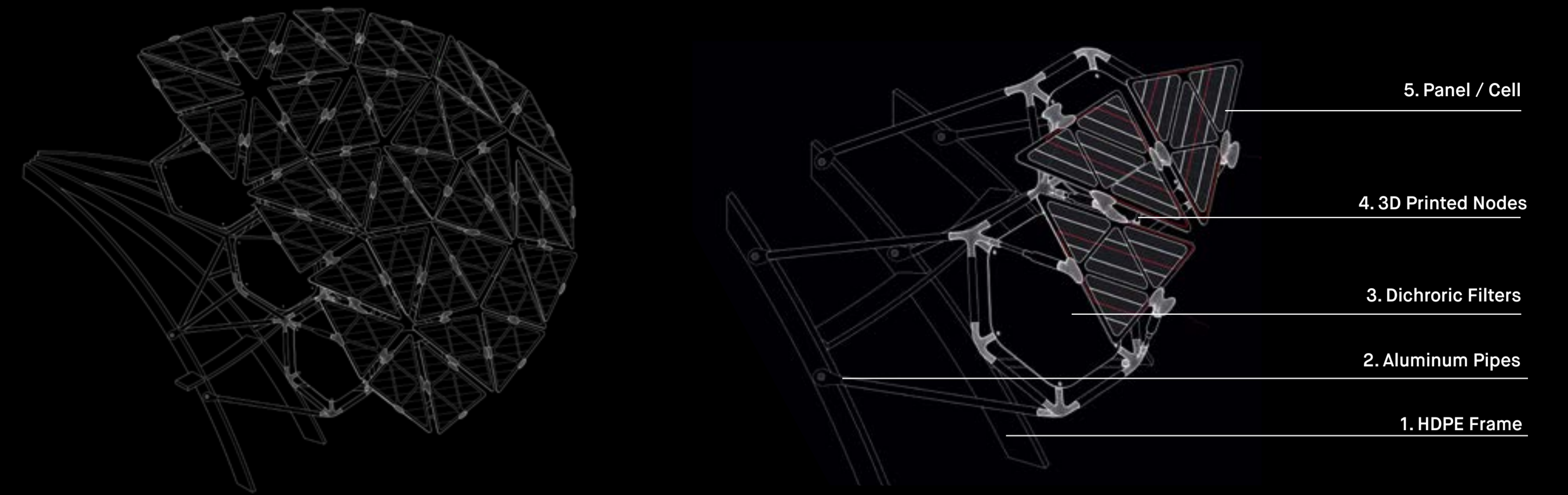
2000'

Site Plan

**Energy Generation, Storage & Output
Powering Your Energy Pod with Sunlight**

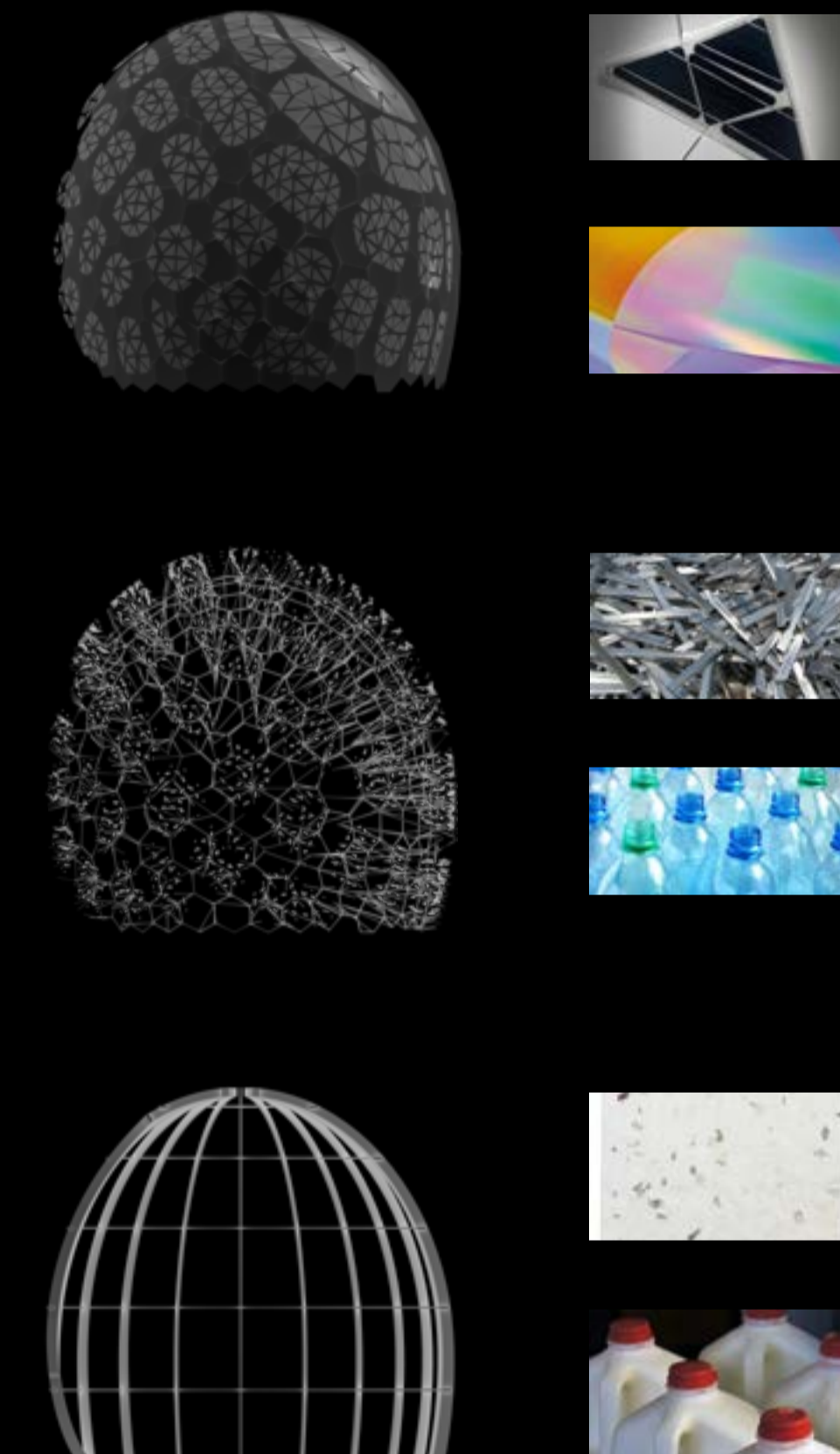
Solar energy gathered during the day is stored and emitted during the night in the form of light energy.
Three 1.2kWh Energy Cell 106RE
Nano-Carbon VRLA-AGM
Operates at 12V, 100AH, (100Ah @ 20hr)]

System
498 Cells in 125 Modules
Module Output at maximum power point
Average daily Energy Output = 3.43kWh (mpp) measured in the lab
Current @ mpp = 2.07A
Power @ mpp = 4.12W
Voltage @ mpp = 2V



Section 1/4"=1'

Cradel to Cradel Material System



PV Cell Systems & Dichroic Filters

Altuglas® RNew 300 is a plexiglass alternative made of bioplastic. Nontraditional photovoltaic cells and modules designed to transform light into electricity, significantly reducing GHG & CO2 emissions.

3D Printed Nodes & Aluminum Pipes

Standard pipe dimensions up-cycle common aluminum scraps. The network of pipes hold panel clusters. Non-standard nodes are 3D printed using a PETG filament created from recycled plastic bottles.

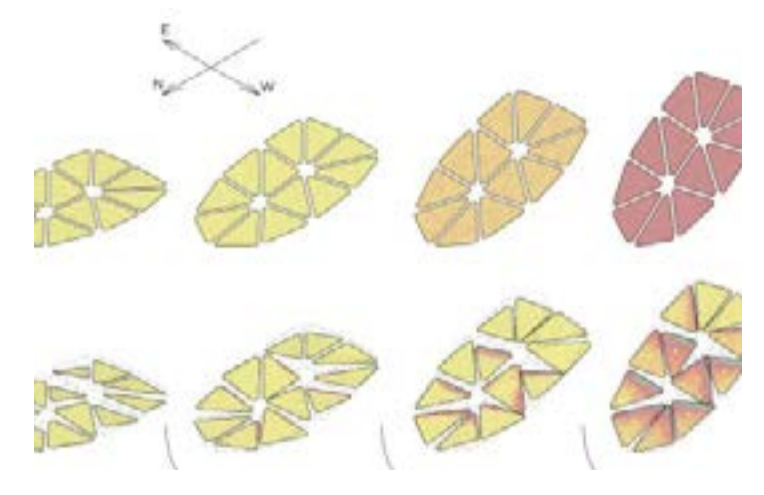
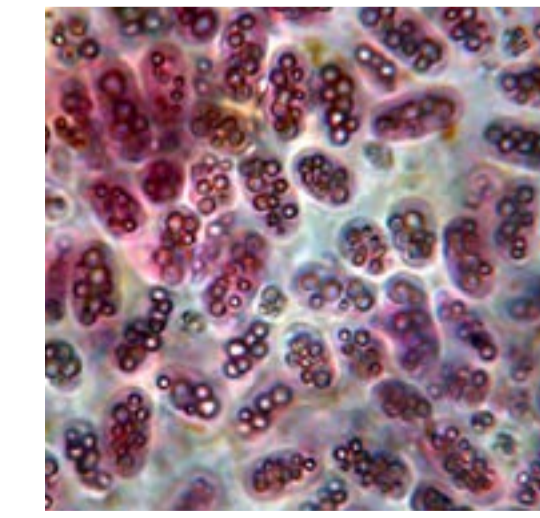
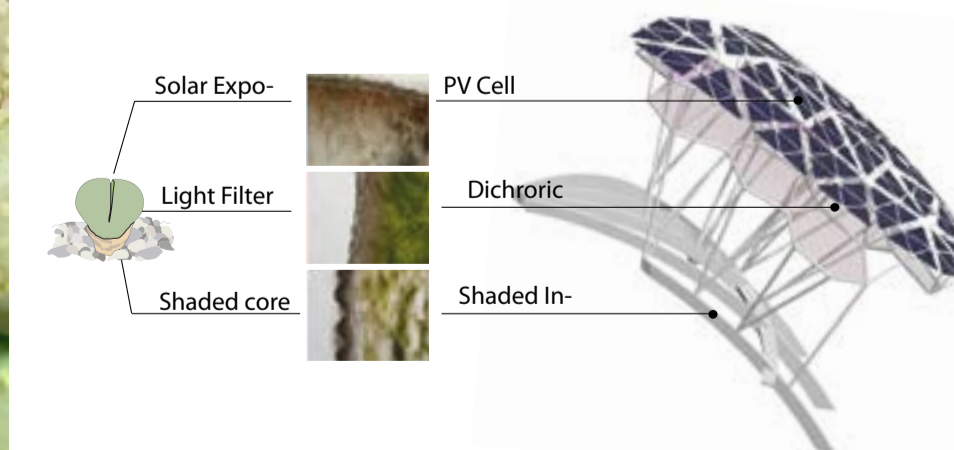
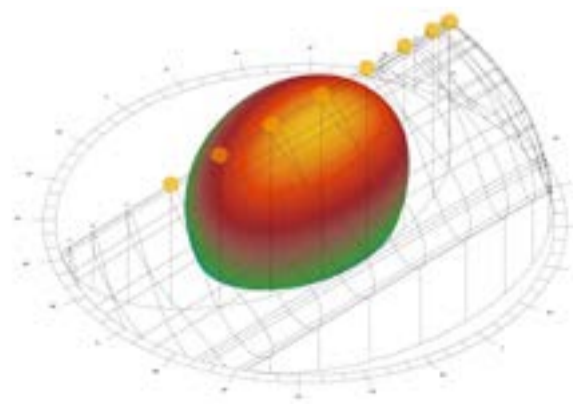
HDPE Frame Structural Frame

Recycled HDPE sheets (often made out of used plastic milk containers) will be digitally fabricated to assemble and construct the primary structural frame of the pavilion.



Photovoltaic Panels on Energy Pods

Form Finding Process and Biological Adaptations



Sun Path Based Form Finding

Biological adaptations of heliotropic mechanisms in sunflowers inform the form-finding process in creating a site-specific solar oriented form.

Light Scattering & Filtering

Similar to Living Stone Succulents, structural adaptations are made according to varied light conditions. In our system, Dichroic filters and PV Panels are used to scatter light and shade the interior.

PV Cell Morphology and Packing

The cellular division found in Cyanobacteria provides us with the idea to use PV panels and light filter to populate the array. This allows the system to scatter light to adjacent cells, increase solar yield, and bring light into the pavilion.