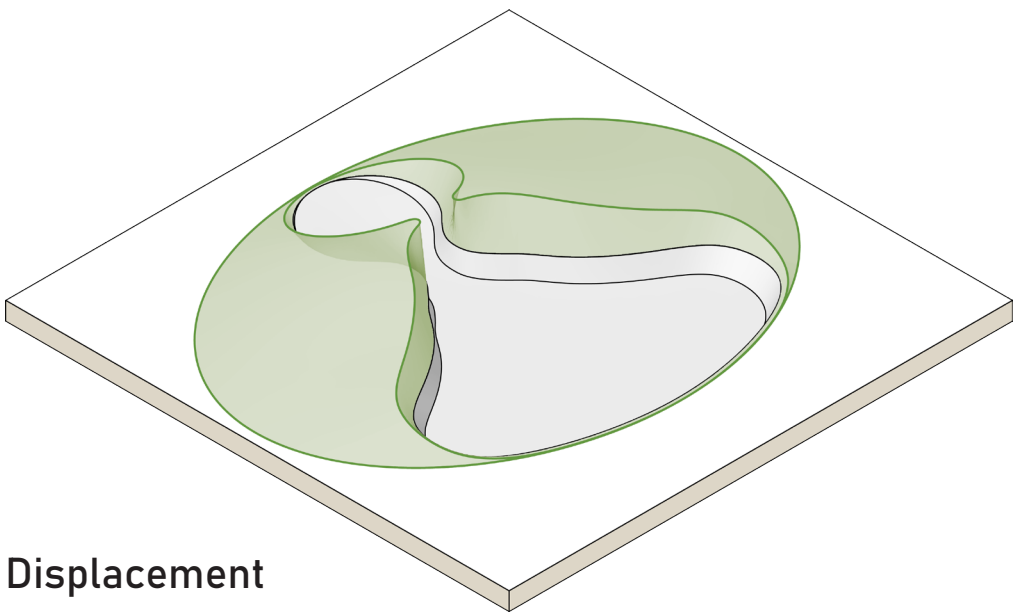


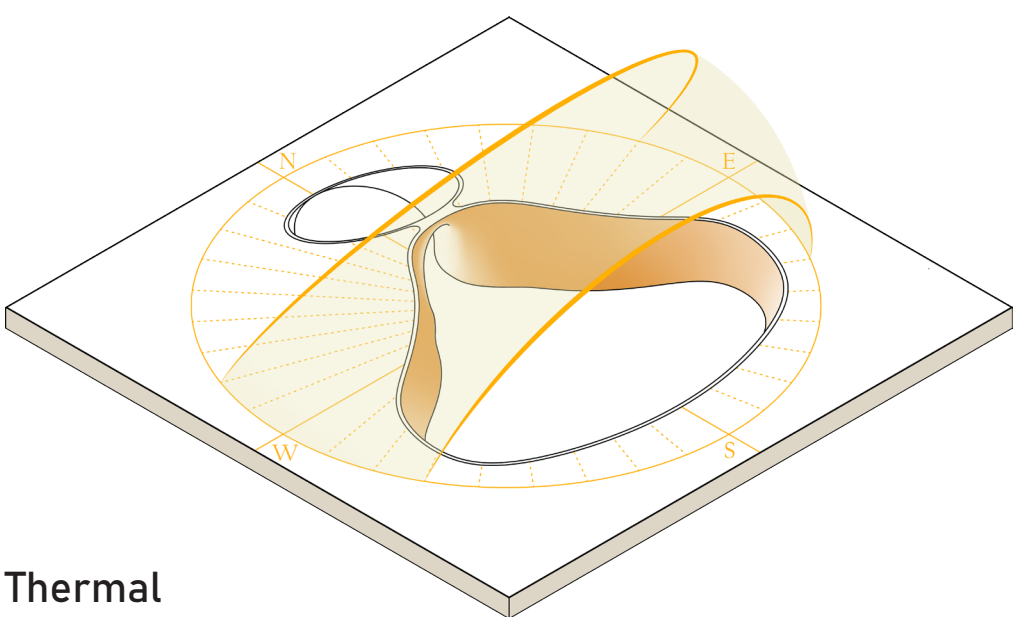
Excavation

Soil is removed to create a bowl in the desired footprint of the greenhouse.



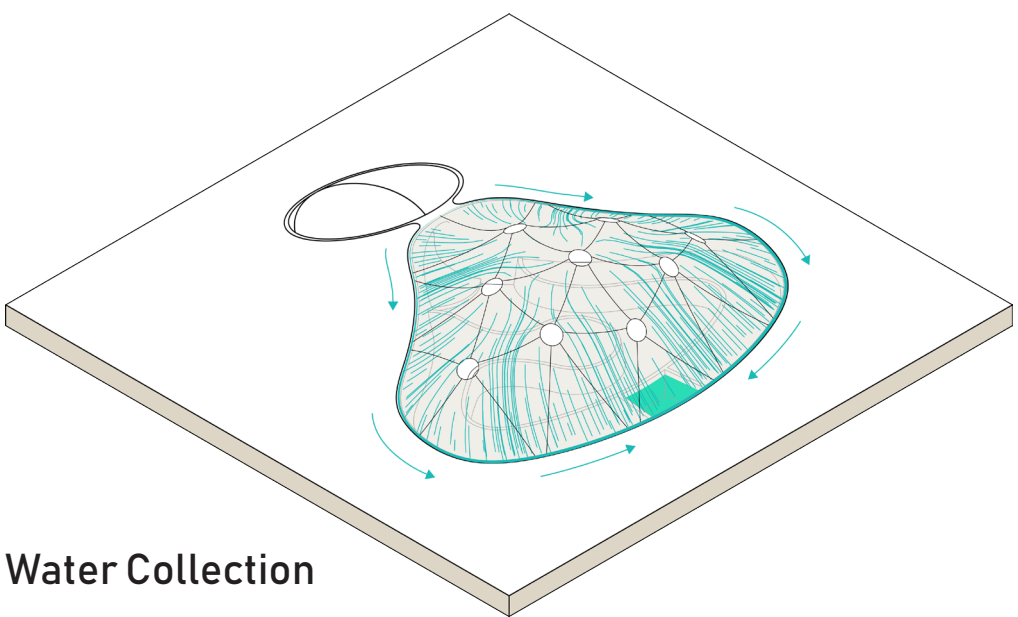
Displacement

Removed soil is piled up and retained into place with reclaimed wet-stacked masonry to create a berm that further sinks the space.



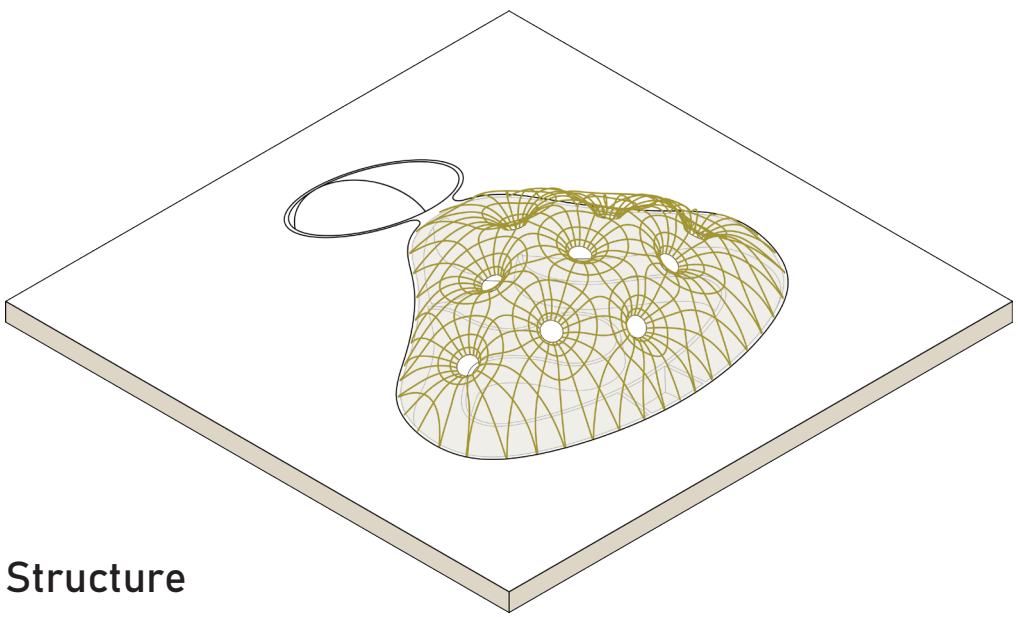
Thermal

The masonry retaining walls act as a thermal mass, thermally regulating the space from outside temperature fluctuations by absorbing heat during the day and releasing it at night.



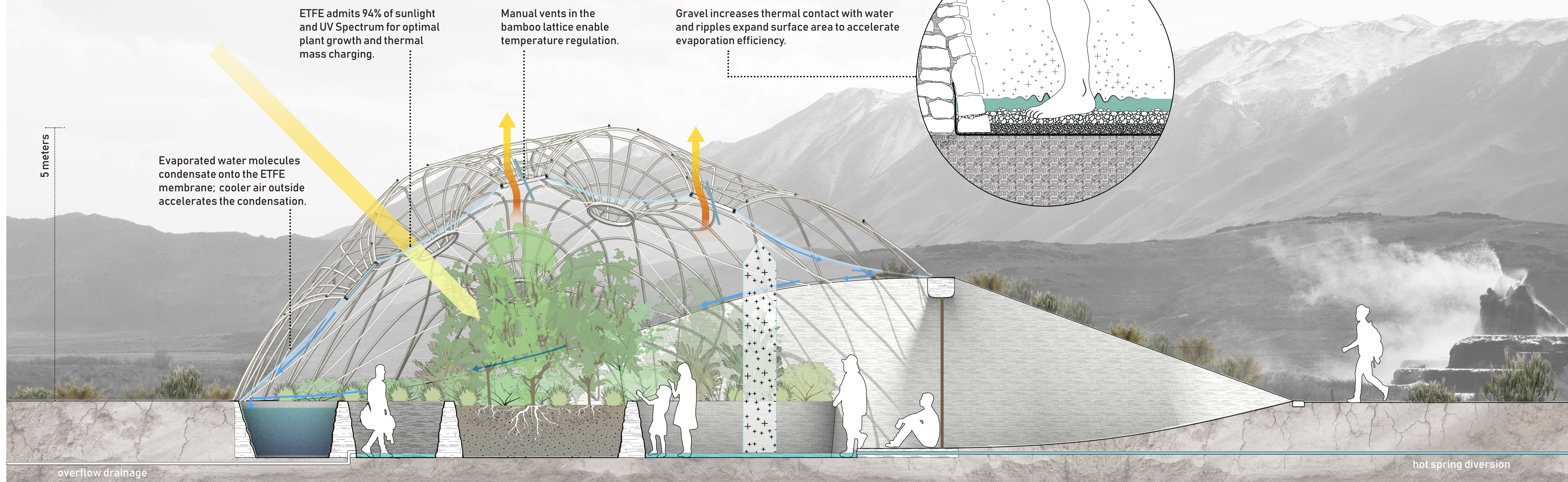
Water Collection

Evaporated water condensates on the suspended membrane. Gravity takes the droplets to the perimeter of the membrane and downhill into an accessible basin.



Structure

Treated bamboo rods are bent and lashed into place to create a rigid shell that can suspend the membrane.



ETFE admits 94% of sunlight and UV Spectrum for optimal plant growth and thermal mass charging.

Manual vents in the bamboo lattice enable temperature regulation.

Gravel increases thermal contact with water and ripples expand surface area to accelerate evaporation efficiency.

Evaporated water molecules condensate onto the ETFE membrane; cooler air outside accelerates the condensation.

5 meters

overflow drainage

hot spring diversion