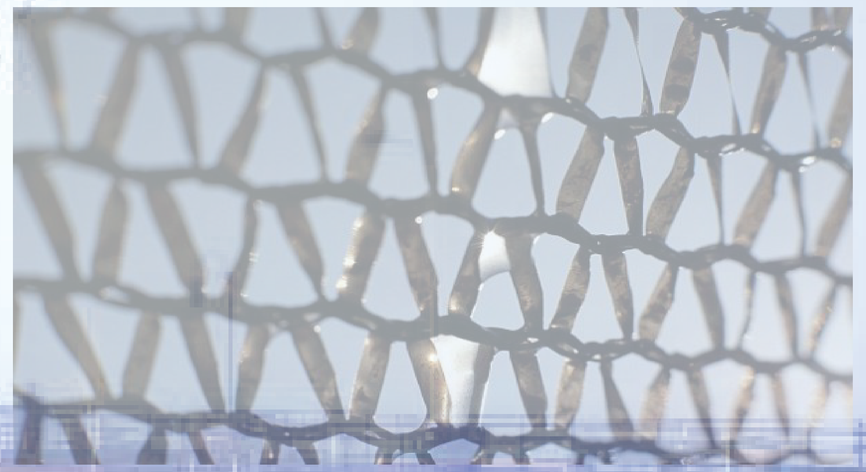
Tensegrity Fog Catcher

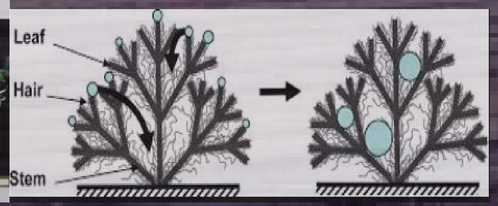
The concept is to create something big and amazing using the least amount of materials.
Three stainless steel poles will be planted into the ground with a 75' radius from center pivot point.
Each pole is then rotated 34 degrees from the top point towards the bottom of the next pole.
This will allows tension members made from stainless steel wire rope to connect each pole with
the other. The top points are connected by three tension members creating a prism shape.
This process is then repeated at the bottom followed by three separate tension members connecting the bottom of one pole with
the top of another. Tension and compression is then formed creating integrity.
The mesh made up of polypropylene or polyethene to allow the droplets to slide down. The mesh is secured onto 75%
of each pole.As an overlooked sustainable water resource, fog is present wherever a cloud touches the terrain.
Fog is made from tiny liquid water droplets.For every cubic meter of fog there is 0.05- 0.5 grams of liquid water.
As a passive process, the only energy generated is given by the wind. The water eventually moves
down into the funnel shaped gutters. Water is then processed through layers of continuous gravel, sand, and charcoal.
As water accumulates inside the reservoirs reaching a certain limit, a sensor will open the feeding pipe, transporting water towards the pier.
In a simpler explanation, this means in a 20'- 30' mesh, on an avarge day, an accumulation of up to 200L can be processed.
In many occasions up to 1000L could be generated. As the rain comes down, wind blows forcing droplets to crash into the mesh at an angle.
It is not necessary for there to be rain in order tcollect fog, even though a fog collector can be a very efficient rain collector as well.
Atmospheric water is naturally clean, containing no harmful micro-organisms which makes it suitable for irrigation needs.
As we comprehend the important connection between the environment and architecture, stability becomes more than a demand.
Understanding their relationship helps us become more familiar to the idea of mimicking nature without
damaging the environment.



Mimicking Nature

Cotula Fallax Plant

Hairs surrounding the leaves capture droplets ,holding them in place for a long period of time,
preventing them from falling to the ground.



Stenocara Gracilipes

When wind begins to blow, the beetle positions itself vertically
on top of sand hills, turning humidity into liquid with its
hydrophilic bumps and hydrophobic valleys.