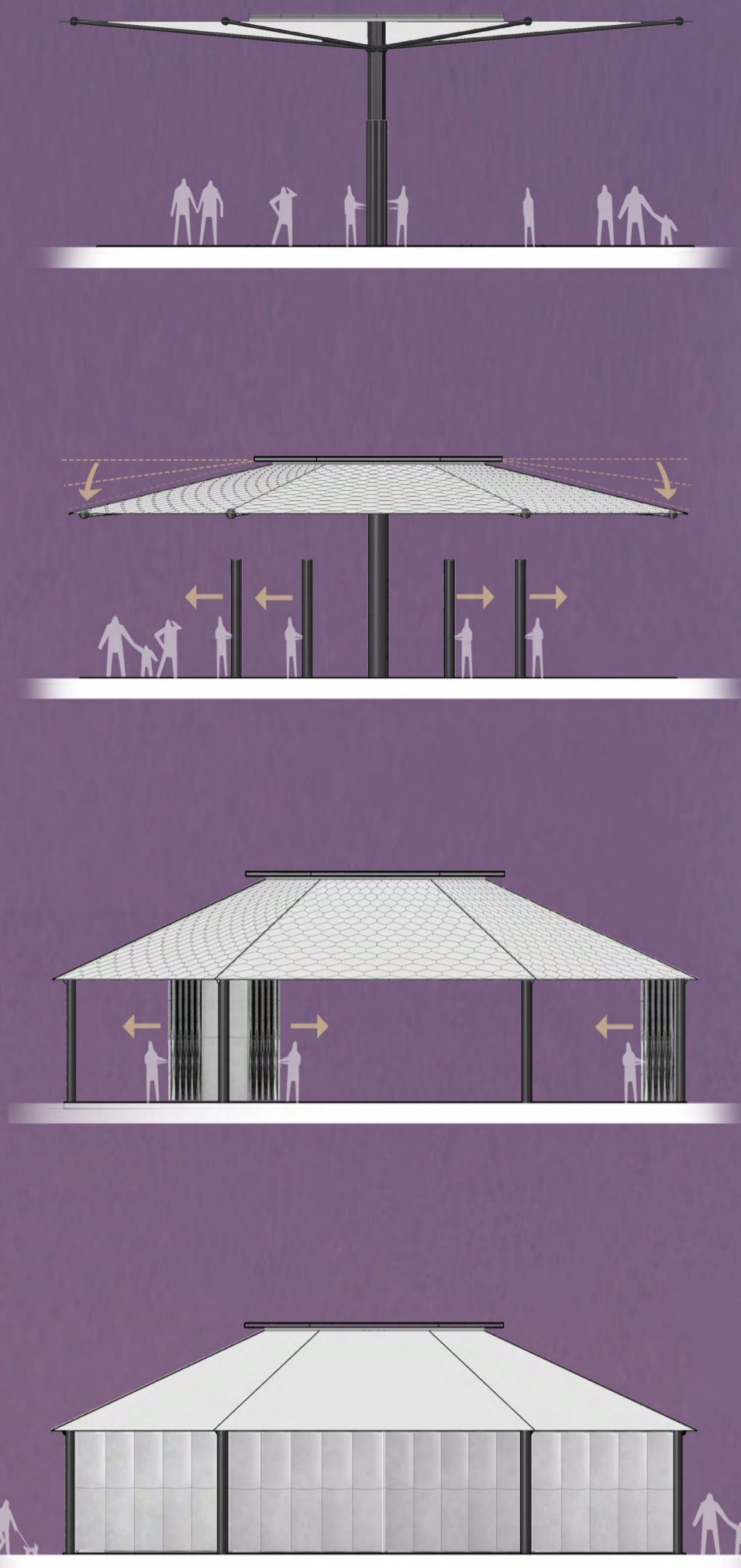


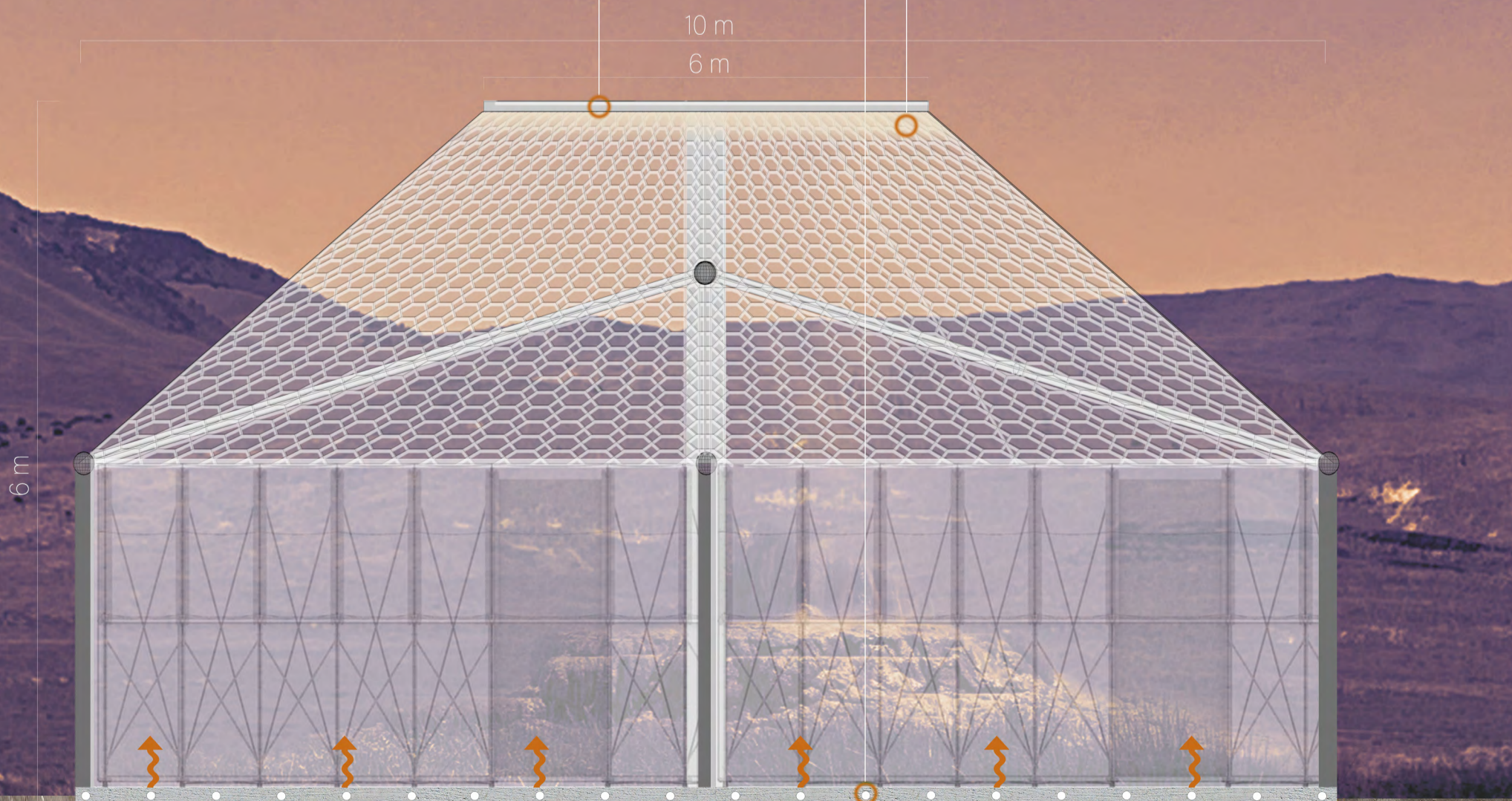
# SOLAR SHROOM NIGHT POSITION



Fluorescent woven textile  
LED black light encircling the oculus maintain unobstructed view of the night stary sky and illuminate (thickness 0.6 cm)

Geothermal Radiant Earthen Floor  
Geothermal microclimate \_ Heating/cooling water pipes control thermal comfort inside sleeping tent in extreme conditions and internal temperature maintained by closing the insulating textile walls( thickness 6cm )

PV Panel – transparent  
Night vision for star gazing



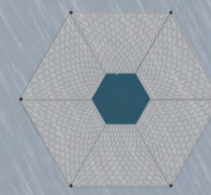
# WATER SHROOM

Each water shroom module produces:  
20-40 L / day

Total Rainwater collection for one Water Shroom:  
120,000 L / year

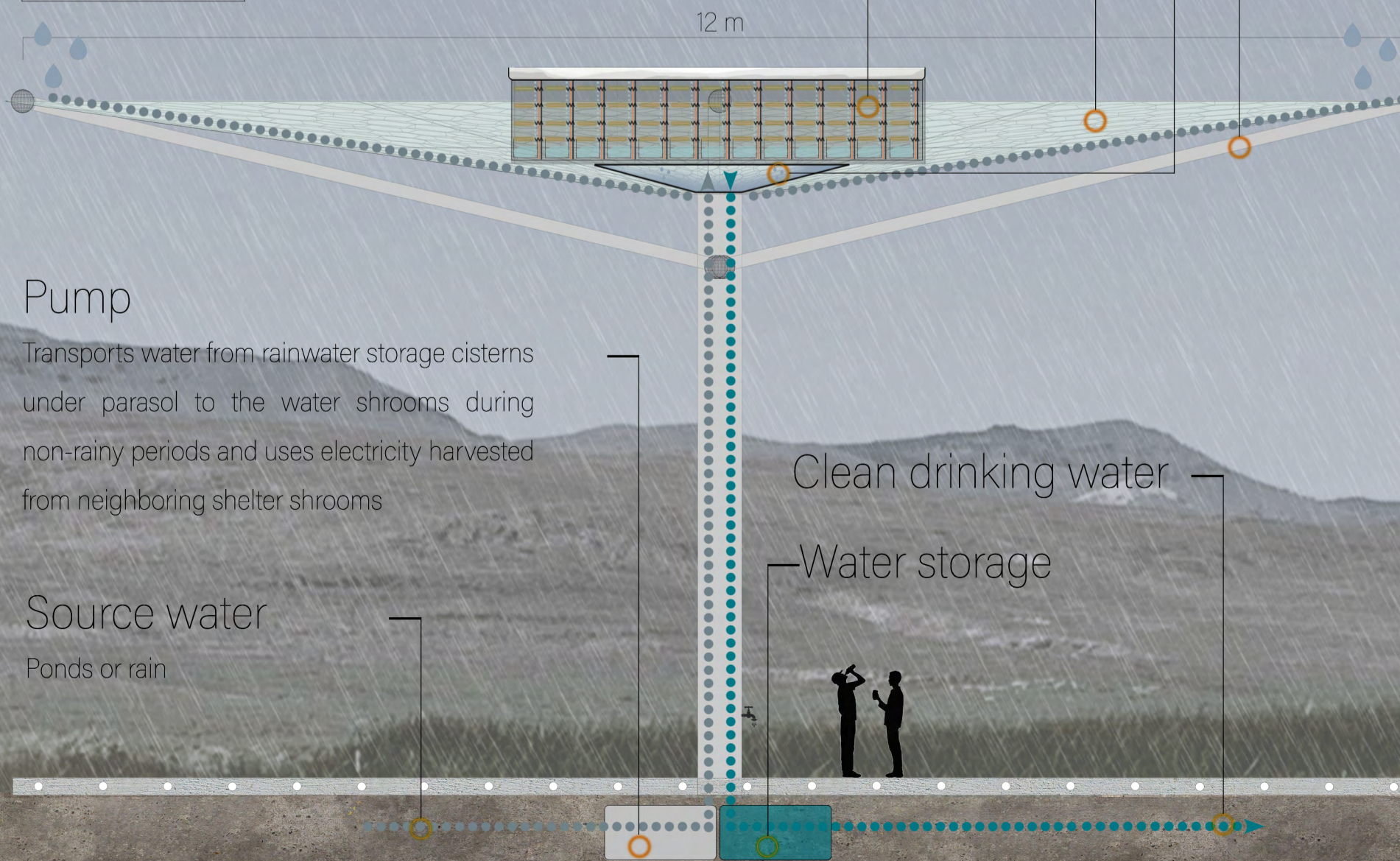
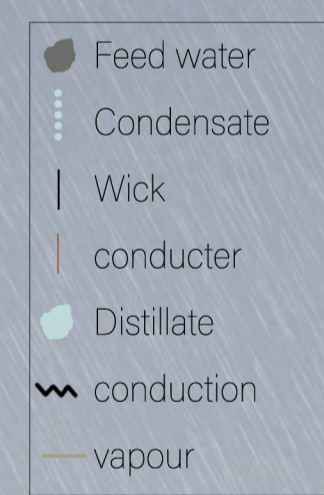
Recycled light-gauge steel frame (thickness 2mm)

Rain water collection



Reflector- mylar film mounted on textile fabric

Vertical Multiple Effect Diffusion Solar Still  
Water on wick is heated by conduction and vaporizes, it condenses on the next plate and water drips to be collected. A series of 12 aluminum plates increases the efficiency of the device to produce 20-40 liters/day of water per Unit (really per every m2 )



Pump  
Transports water from rainwater storage cisterns under parasol to the water shrooms during non-rainy periods and uses electricity harvested from neighboring shelter shrooms

Source water  
Ponds or rain

Clean drinking water

Water storage

# SOLAR SHROOM DAY POSITION

Each solar shroom module produces:  
11,690 Kwh / year

Geothermal Radiant Earthen Floor  
Reinforced with hemp fiber for tensile strength,compressed,and sealed with oil ( thickness 6cm )

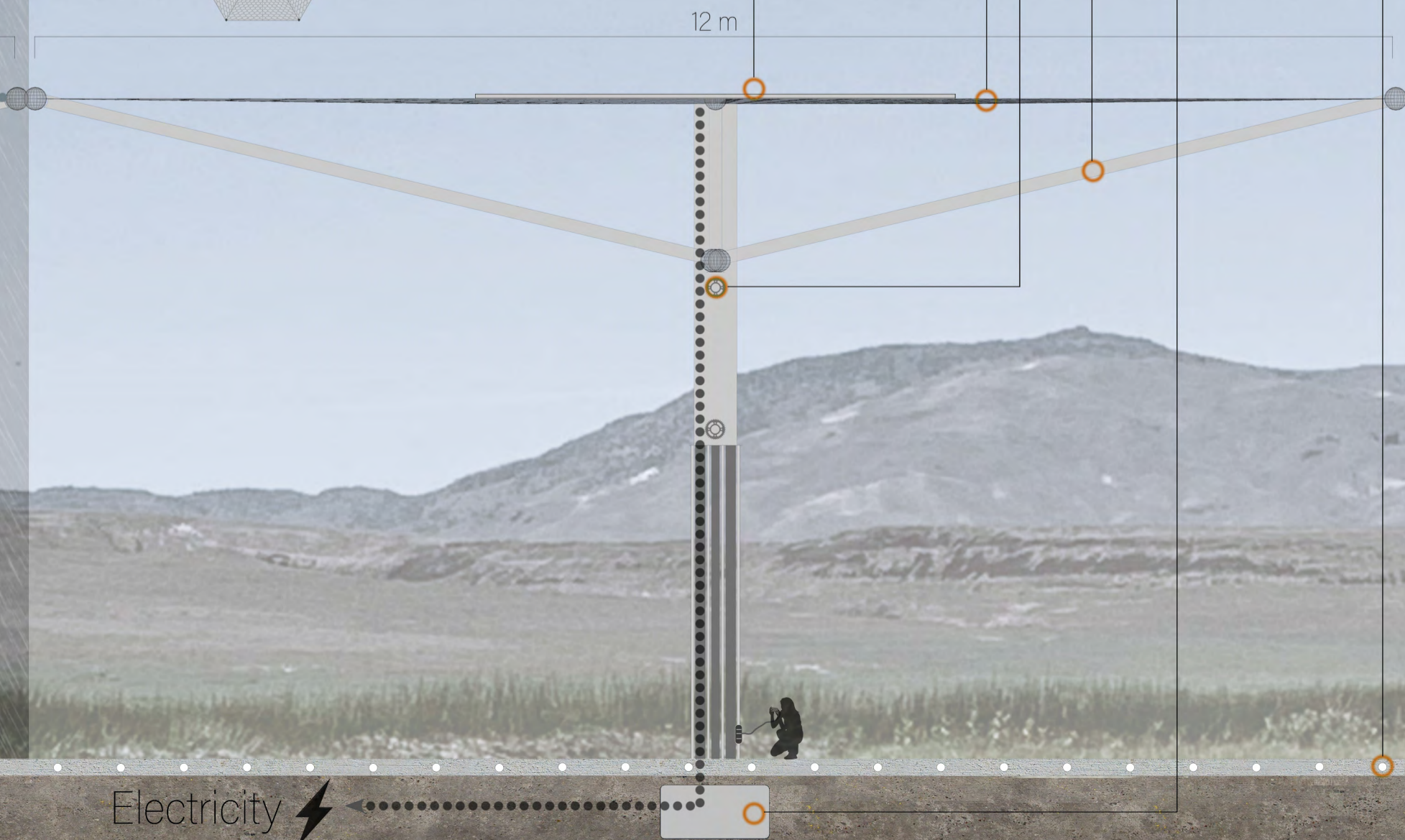
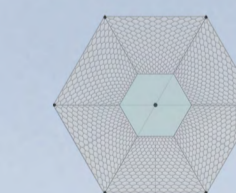
Graphene Nanocomposite new super battery  
locally stored solar power is used to power night lighting operate the water-shrooms'pump, and charge plugged-in phones. Additional electricity is sent to local microgrid

Recycled light-gauge steel structure  
Kinetic structure,prefabricated, lightweight, and modular, easily transportable to site and assembled by unskilled labor

Engineered mechanical pully system operates kinetic arms  
Using upcycled bike gears from the Black Rock Desert operate the kinetic arms to convert the arms from open daytime sun-shading to closed nighttime sleeping units

Graphene Aerogel textile  
Ultra-light, super-elastic 3D printed fabric with superior insulating properties to allow thermal massing in transition from day to night (thickness 1.5cm)

Transparent PV cell window  
Hybrid electrode technology(PSCs) with graphene armor,improving mechanical durability and tested conversion factor of 16.4%



Electricity