



The towers are a rare form of land art where it does not require advance technology and can harvest potable clean drinking water through the expense of minimal manual labor and inexpensive materials, such as bamboo and mesh polyester. Water vapor is a constant feature in the atmosphere, which makes the harvesting process ideal in local environments with high or moderate fog and humid conditions. The water harvesting quantity will depend solely on the climatic conditions and the goal for each day is to be able to harvest 40-80 liters (10-20 gallons) of drinking water for St. Kilda's unemployed community and the remaining aboriginal population. The tower is built out of bamboo which will hold the mesh polyester inside of the tower. The process of the water harvesting is simple; rain, fog and dew condenses against the mesh and trickles down through a funnel into a reservoir at the base of the structure. The ETFE (Ethylene Tetrafluoroethylene) canopy will provide shade as well as to prevent the collected water from evaporating.

The primary structural bamboo is a 1" thick and the secondary is 1/2" in diameter. The interweaving mesh inside is where the condensation and droplets of dew take place as it trickles down to the basin, funnel and finally the reservoir. The canopy is designed to give the locals and aboriginal people a place to celebrate the annual Tanderruum dance ceremony, which the people of St. Kilda hold dear as one of their most significant cultural traditions. Moreover, when the festivities are not taking place the canopy becomes a sheltered social gathering place for both the locals and tourists and as well as a space or public events.

The ETFE (Ethylene Tetrafluoroethylene) film material is highly durable, UV transparent and very lightweight. Flexible photovoltaic (PV) cells and/or LED lighting can be integrated with a single layer so the colors of each canopy can be seen and enjoyed during the day or night. The canopy is a single layered application form and will be reinforced with cable wires, such that the pavilion is a haven for locals and tourists alike can unwind, where the place will be illuminated with the colors of the aboriginal flag overlooking the view of the St. Kilda Bay, ideal for sunset watching.

WATER HARVESTING PROCESS:

