

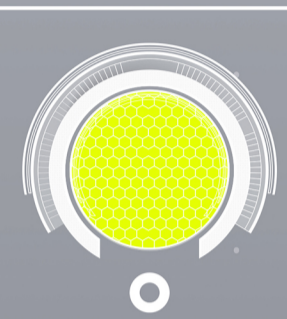
ENERGY



98%



2%



18.500 kWh/year
SOLAR PV



13.500 kWh/year
SOLAR RING

32.000 kWh/year

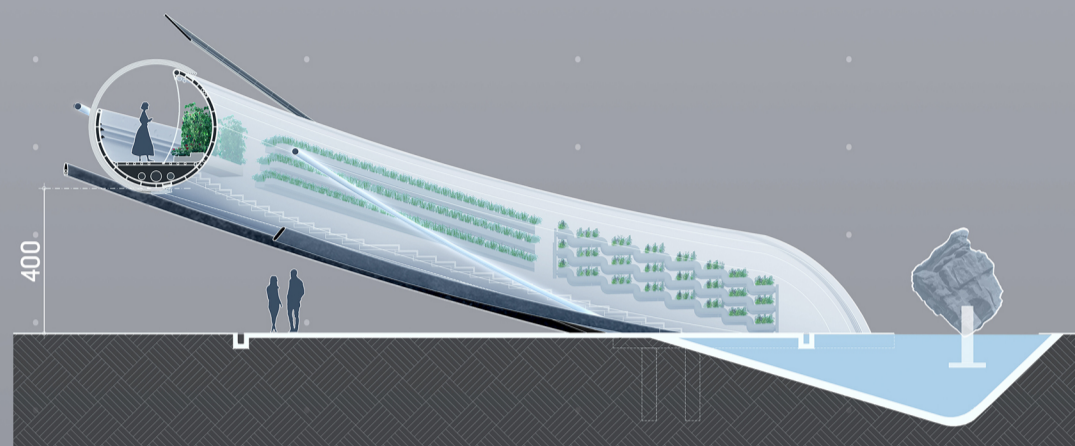
2.000 kWh/year

34.000 kWh/year
TOTAL ENERGY PRODUCTION

saving
8.000 kWh/year
BY STEPS PUMPING

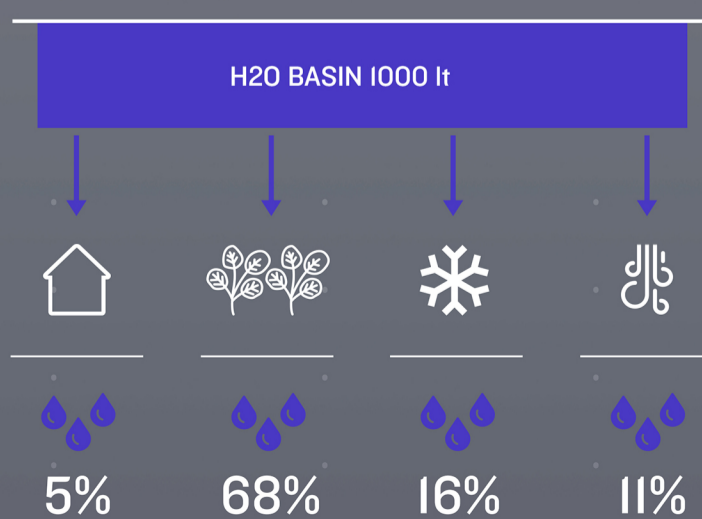
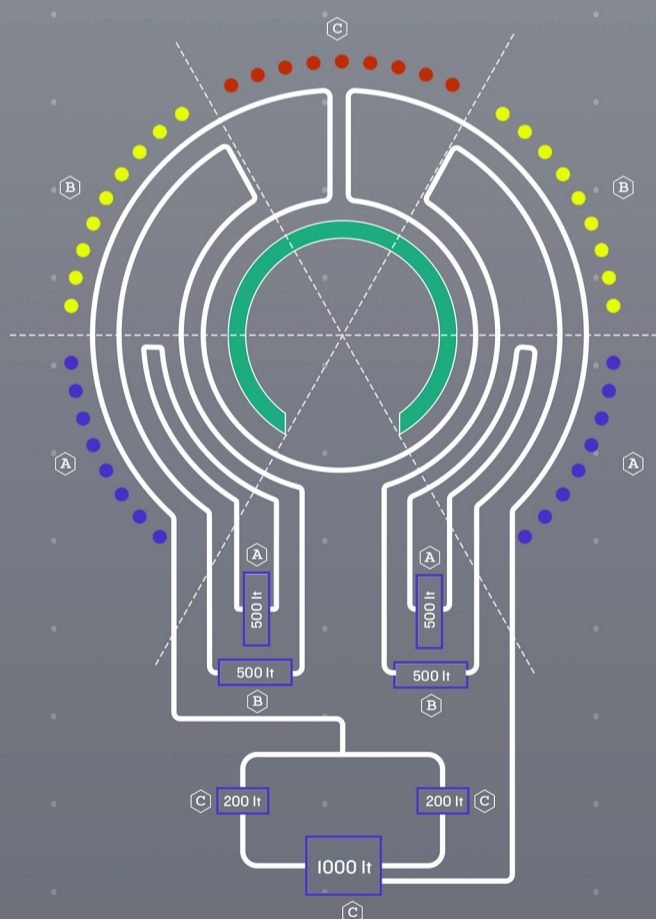
POOHA's energy model, 98%/2% relates its sustainability to human action, without it the entire structure would find itself in an energy deficit.

POOHA has a single primary energy vector - green electricity, which will be produced (in our Fly Ranch application) by two types of solar photovoltaic units: the PV ring and the ground main circle. Humans will contribute to the energy cycle by seamlessly pumping the water needed for POOHA's greenhouse as they are climbing it, as well as produced by their movement across the main ground circle and stone area (energy floor). The instantaneous energy balance will be revealed by the energy stone - as the stone rotates, POOHA is accumulating energy, if it stops that means there is an energy flow error and the demand larger than the production, triggering the extra power required to be delivered by the storage.



WATER

POOHA has an integrated AWA MODULA system that will produce from 800>2,500 litres of water from air per day + primary fresh air + hot water for the heating circuit + cold water.



1 Body Halo [main path]
Total diameter [25m]
Section size [D=3.4m]
Value {SHELTER}

2 Body Halo [hydraulic greenhouse]
Total diameter [25m]
Height [250cm]
Wide [100cm]
Value {FOOD}

6 Body Halo [visor shield]
Total diameter [25.4m]
Value {SHELTER}

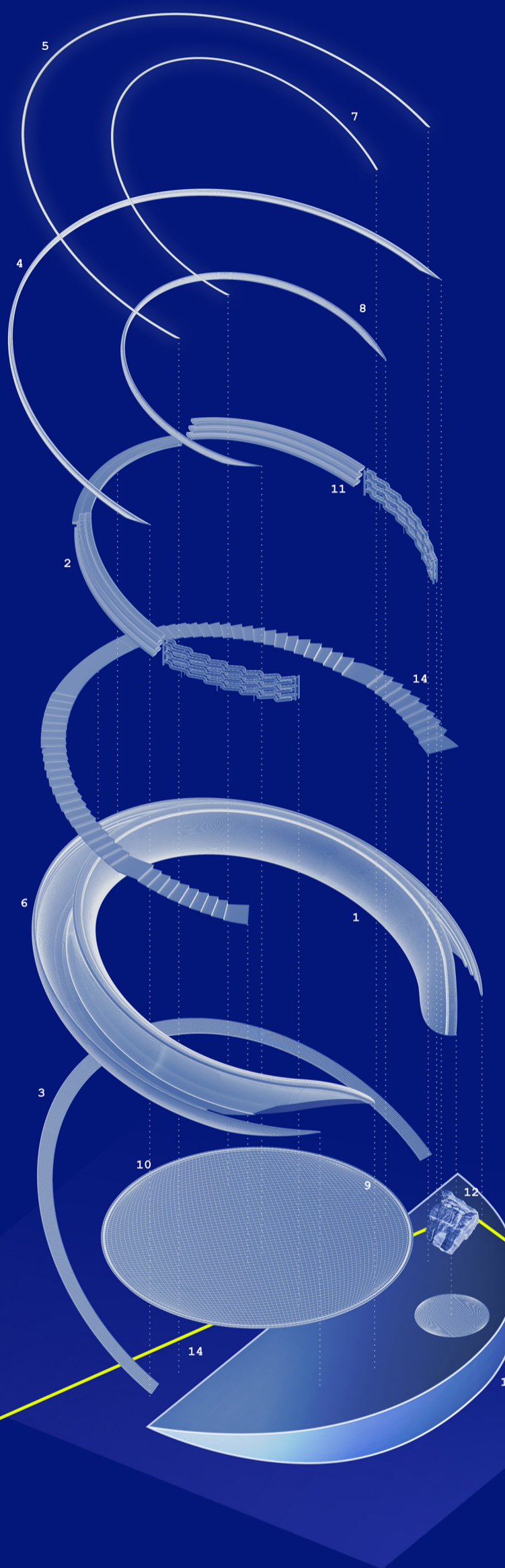
10 Body Ground [solar PV]
Total diameter [16m]
Total area [200m2]
Value {ENERGY}

11 Body Halo [H2O hydroponic tanks]
Under each cultivation floor
Value {WATER}

12 Body [stone]
Height [115cm]
Wide [190cm]
Fuction: [sustainability check]

13 Body [H2O basin]
Total capacity: 1000 lt
[underground]
Value {WATER}

14 Body [human step energy]
Total: [93 mJ]
Value {ENERGY}



3 Ring [solar PV]
Total diameter [28m]
Section size [10x100cm]
Value {ENERGY}

4 Ring [cooling mist]
Total diameter [26m]
Section size [0.4m2]
Value {TEMPERATURE}

5 Ring [light OUT]
Total diameter [27.4]
Section size [R=10cm]
Value {LIGHT}

7 Ring [light IN]
Total diameter [15.2m]
Section size [R=10cm]
Value {LIGHT}

8 Ring [music]
Total diameter [14.4m]
Section size [10x45cm]
Value {ENTERTAINMENT}

9 Ring [heat pit]
Total diameter [15.8m]
Area [7.4m2]
Value {TEMPERATURE}

FOOD



SALADS & SPICES



MICROGREENS



TOMATOES

20 days

45 Kg MONTH

10 days

360 Kg MONTH

7 days

600 Kg MONTH

150 rations x MONTH

TOTAL FOOD PRODUCTION

1.983 kWh/month + **3.230 lt/month**

FOOD PRODUCTION CONSUMES

2/day x

> Symbol of Sustainability

At the heart-centre of POOHA we have set a stone that is in balance over a water surface. The stone is linked to POOHA's control system, it functions as an indicator of the ratio energy/consumption of the whole of POOHA and of the community it relies on. When POOHA is at its highest sustainable level the stone rotates. However, if there is a shortage in the energy system the stone will stop rotating.

