EXPLODED STRUCTURE

1. Paleo-energetic windcatcher; pressure difference helps to bring warm air to the top and cool air to the bottom of the column. The system is cooling air and keeps water fresh.

2. Net CloudFischer to recover the water contained in the fog, 23250.0465 sq in for 330 liters of water produced per day and it withstands winds of 109,361 ft/s.

3. Water tank can store 50 gal and store 6000 liters of water.

4. Drinking water tap.

5. Drip system, prevailing wind to limit it in addition to irrigating the soil towards Fly Ranch.

6. Irrigation system with terracotta jars, part of the water is stored in recyclable terracotta jars and can be used as water sources for animals and birds.

7. 3D printed Compacted Bentonite structure, it is water-resistant. The material which is used is a natural clay produced Northern Nevada named Bentonite. For construction the clay is compacted with sand and ashes.

According to the relationship Paiute people have with nature we were looking for local resources that allow us to build with zero carbon footprint. Our search for sustainable architecture is reflected by the choice of materials. Its minimal architecture and the collection of rainwater and condensed water in tanks, which irrigates the natural landscape of Fly Ranch and keeps water for the inhabitants and festival-goers.

The Architecture is made of clay, one of the most ancient material used in vernacular construction. Bentonite is a sustainable and local clay with the ability to withstand water. The material is used in a contemporary construction method, which collects the clay onsite and uses it to build the structure.

Once the structure has taken effect, it will strengthen the vegetation on the soil by allowing its densification and the arrival of new species that could not grow without less water, even trees.

The water is recovered in two ways:

First by rainwater harvesting and by condensation with nets fog. The Windcatchers are shapes to facilitate the entry of rainwater and allow it to flow down the tank. It seemed important to store water which is so rare in the desert. All civilizations that have lived in a desert climate have developed ways to store rainwater.

The second system required a very careful study of the location of the sanctuary. To recover a maximum of water the project is positioned in the axis of the geysers and the prevailing wind pushes the humid air in the arc of nets.