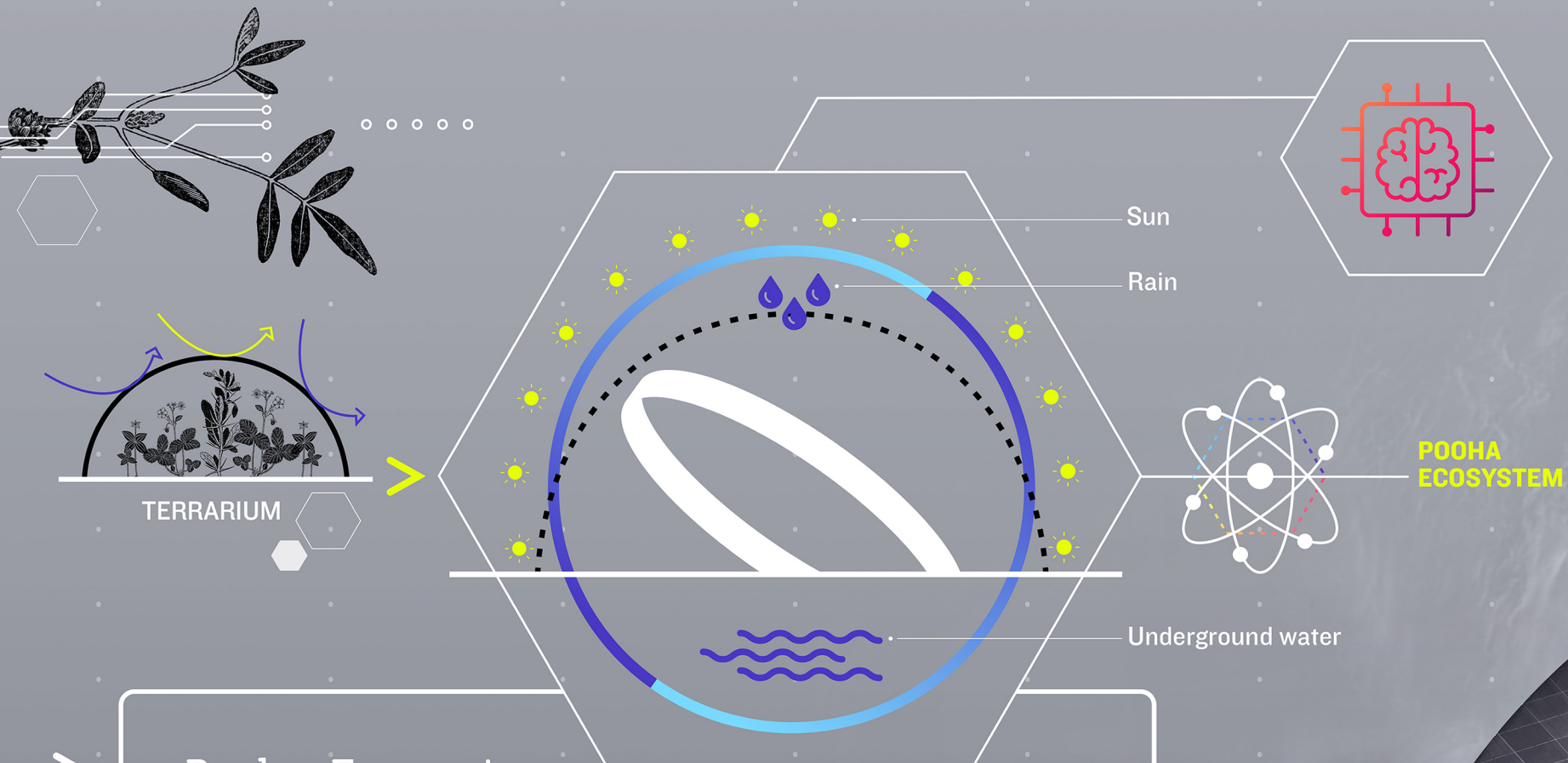


# pooha

## > The Paiute Legacy

Ten thousand years ago in the Nevada Desert lived Paiute tribes; they were forced into a nomadic lifestyle, imposed by the scarcity of food and water. Despite adversities and the necessity to roam, the natives' strong faith and devotion towards nature was the element that gave them life.



## > Pooha Ecosystem

This project responds to that ancestral life necessity making the impossible possible: thus granting a permanent dwelling in a place with extremely unbalanced resources.

The idea took inspiration from a very simple technique of the 1800s, the Terrarium; used to carry plant species across the oceans. The terrarium technique involves the creation of a circular micro-ecosystem inside a glass container which, when closed, becomes self-sufficient for its survival.

In our modern Terrarium, thanks to technology and a control system, we have been able to eliminate the dividing element between it and the environment in which it is inserted.

We have created a human-friendly machine; you could call it a 'guest-ecosystem' installed into a 'host-ecosystem', the Nevada desert. Drawing from the latter, resources that are promptly restored and using the existing energy sources without affecting the host-ecosystem.

We have combined existing techniques and technologies to recreate a glassless "terrarium", designed to provide energy, food, water to support the life of a community of 15/30 people who could live around it.

Our project will create a positive-sustainable environment that will benefit from the energy and natural resources available onsite, remaining below the natural threshold of consumption/restoration; in this way the impact of the settlement will remain sustainable.

## > The Design

POOHA redesigns the future concept of settlement. It is the heart of the community that can grow and develop around it and thanks to it.

The main body consists of an inclined halo oriented to the SOUTH. It has a diameter of 25m, grafted into the ground with a minimal depth of foundation in order to preserve balance and to have the least impact on the host-ecosystem's terrain. We have optimized the foundation's counterweight needs by including a 1000lt water basin that is the water source and storage. The inclination is chosen for a dual function: the first to recreate a shaded area and a shelter, the second to allow, in its exposed part, an optimal solar radiation throughout the day. The central part of the structure is a circular square of walkable solar panels, this is POOHA's primary source of energy.

The main body (halo) is designed to accommodate a multilevel hydroponic glass greenhouse on its entire circumference divided into 5 parts, suitable for hosting 3 different types and cultivation techniques.

