La Geoda

CASAS ITER
BIOCLIMÁTICAS

HOW DOES THE IDEA COME ABOUT?

The design insertion of **La Geoda** in the area will be discreet, delicate, respectful and non traumatic with the environment. A large Geode-shaped inclined roofing covers a group of glass panels.
The inclination of the large sloped roof allows natural ventilation and has a volcanic ash based thermal isolation system. The night area of the house is partially buried next to the basaltic wall on which the deck rests. With a privileged view, the magnificent dining room invites to let go and be driven to the horizon, allowing us to dawn in the sea and dusk in the volcanic cone.
This house has been designed to achieve optimal indoor climatic conditions of temperature and relative humidity with the help of the user. Comfort conditions for temperature are assumed between 21oC and 26oC and between 20% and 80% for relative humidity. All the strategies proposed will be aimed to maintain the house within these parameters, especially thermal, without using energy consuming appliances, only through bioclimatic techniques. The climatic data of the house can be accessed through a screen in the interior.

MAC 2014-2020 Cooperación Territorial
Interreg
PROYECTO COFINANCIADO POR LA UNIÓN EUROPEA
Medio ambiente y eficiencia de los recursos

BIOCLIMATIC STRATEGIES

The main bioclimatic strategies used in **La Geoda** house are:

- Glazed surface facing south allows thermal gains when needed.
- Deck over the southern façade protects from excessive radiation the spaces to enjoy during the day.
- Skylights in the north that contribute to illuminate the bedrooms without contributing to its warm up.
- Semi underground spaces to increase the thermal inertia of the night spaces.
- Complementary ventilation through air vents located in each room.

HOW IS THIS BIOCLIMATIC HOUSE USED?

If it's warm

- Open the doors to help cross-ventilation.
- Lower the blinds to prevent direct sunlight.
- Shut the louvers.

if it's cold

- Raise the blinds to let the sun heat in.
- Close the doors so that the accumulated heat doesn't escape.
- Open the louvers.