

El Dispositivo



CASAS ITER
BIOCLIMÁTICAS

HOW DOES THE IDEA COME ABOUT?

The concept of the design of **El Dispositivo** is to include bioclimatic devices in the living area, merging them with the space. The structure is made up of two displaced rectangular cubes, with a "Fortran" wall and the service ditches. The dwelling has an open plan with no interior walls; the main floor opens to the landscape with a sheet of water that gives life to the living room and a solarium that extends it. It is a stranded ship facing the ocean with various decks open to different horizons, el Teide and the sea, among others.

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 21°C and 26°C 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.

BIOCLIMATIC STRATEGIES

The main bioclimatic strategies used in **El Dispositivo** are:

- Sheet of water that humidifies the air and lowers possible high temperatures
- Sliding louver panels used to prevent overheating due to the incidence of sunlight
- Glazed staircase that provides natural light to the kitchen, in summer is protected with a dissipater element.
- Wind Regulator System (SRE) composed of wind chimney, facade and wind solar wall openings and evaporative cooling devices.
- Circulating water containers with in the openings of the wall and the wind chimney.

HOW IS THIS BIOCLIMATIC HOUSE USED?

If it's warm

- Open opposite doors on different floors to allow cross ventilation, including the ventilation chimney.
- Lower blinds to prevent direct sunlight entry.
- Shut the louvers.

If it's cold

- Raise the blinds so that the heat of the sun may enter.
- Close the doors so that the accumulated heat does not escape and close the ventilation chimney.
- Open the louvers



PROYECTO COFINANCIADO
POR LA UNIÓN EUROPEA
Medio ambiente y
eficiencia de los recursos