La Arcilla

CASAS ITER
BIOCLIMÁTICAS

HOW DOES THE IDEA COME ABOUT?

The design of **La Arcilla** combines the traditional hot and arid climate house and the possibilities of modern ecotechnology. The architecture uses the basic forces: sun, earth, air and water.

Each interior space has its external counterpart, extending the living space outwards, where hammocks invite us to rest and relax. The use of natural materials such as clay, lime, mud and wood and the colours used for the house, make it blend in the environment. It resembles a Mediterranean oasis transplanted into the Atlantic.

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.

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Medio ambiente y eficiencia de los recursos

BIOCLIMATIC STRATEGIES

The main bioclimatic strategies used in the **La Arcilla** are:

- Each interior space has an external counterpart, extending the living space outwards.
- Design of a reduced glazed surface on the upper floor to protect the room from excess solar radiation.
- Windproof awnings arranged on the upper terraces.
- Wind tower that wind vents connect the tower with the bedrooms generating suction currents. Cross ventilation from two opposing terraces.
- Shells placed on the roof to reflect excessive solar incidence.

HOW IS THIS BIOCLIMATIC HOUSE USED?

If it's warm

• Open doors and windows for cross ventilation
• Lower blinds to prevent direct sunlight entry
• Open windows in the lower part of the rooms, in the middle wall to allow cross ventilation
• Open the air vents of the fireplace.
• Place hammocks in the most comfortable hours in outdoor spaces

If it's cold

• Raise the blinds so that the heat of the sun may enter
• Close doors and windows so that the accumulated heat does not escape
• Close the windows at the bottom of the rooms to prevent excessive air movement
• Closes the ventilation slats of the fireplace.
• The best place to enjoy pleasant temperatures is near the glazed areas facing west.