

La Estrella



CASAS ITER
BIOCLIMÁTICAS

HOW DOES THE IDEA COME ABOUT?

The radial structures of the stone walls create the layout of the **La Estrella** house benefiting from the surrounding views.

The house is organized as a succession of rooms that communicate and are in relation with a central courtyard that distributes, ventilates and gives light to the house. This scheme foments a very close relation between the inhabitants of the house. The smell of rosemary planted in the green roof is soaked by the whole house.

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.

BIOCLIMATIC STRATEGIES

The main bioclimatic strategies used in the **La Estrella** house are:

- Semi underground construction allows softer temperature fluctuations and acoustically protects the house from the incident wind.
- Patios allow the entrance of natural light and the renovation of the air in the different rooms.
- Green roof improves the thermal inertia.
- Adobe tile floor as heat absorbing element.
- Ventilation induced by stratification; high openings in the south-facing windows and low openings in the north-facing areas.

HOW IS THIS BIOCLIMATIC HOUSE USED?

If it's warm

- Open doors and windows to help cross-ventilation.
- Lower the blinds to prevent direct sunlight.
- Open the windows for ventilation by stratification
- 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.
- Close the windows to prevent the accumulated heat from escaping the space by the stratification ventilation.
- Open the louvers

