

# La Vela



**CASAS ITER**  
BIOCLIMÁTICAS

## HOW DOES THE IDEA COME ABOUT?

The design strategy of the house La Vela is determined by the use of the prevailing winds and the maximization of the sea views. Its enclosure aims to emulate the sails of a ship. The living area, on its south front, is completely open to the sea, extending outwards through a terrace that resembles the wooden deck of a sailboat. This cover merges the house with the landscape and integrates them. The upper level has a light weighted and nocturnal atmosphere almost suspended in the air. The house is full of interesting plays of natural light. The sun and the moon interact with the 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 en the house La Vela are:

- Southeast orientated solar protection in the interior with venetian blinds of about 30 m2.
- Bedrooms situated on the first floor to use accumulated heat.
- Windows located on facing facades and movable panels to allow cross ventilation throughout the house.
- Smaller windows located at a lower height in the kitchen to use reflected natural light avoiding the heat of direct radiation.

## HOW IS THIS BIOCLIMATIC HOUSE USED?

### *If it's warm*

- Use pivoting panels to direct the air at will
- Regulate louvers
- Open doors and windows for air circulation
- Water plants indoors with moderation and thus refresh the atmosphere a little

### *if it's cold*

- Closes pivoting panels to prevent heat loss inside
- Opens louvers
- Close doors and windows to allow heat to build up inside
- Clothing and activity level (sedentary, medium and high) are essential for your thermal comfort. For temperatures below 21° with all windows closed and without increasing the relative humidity of the environment minimum values of 1.0 clo are recommended



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