This house in Herzliya is located on a long, narrow plot with an adjacent building to the west that blocks light and airflow. To deal with this situation, the architects planned a series of staggered blocks creating an irregular eastern facade. This strategy provided south and north light and natural ventilation. In contrast, the eastern wall has few openings.
A passive design approach can involve the structure of a building, including orientation, window and skylight placement, insulation, and building materials.
Herzliya Green House

Second-floor plan

First-floor plan

The house incorporates adobe blocks in specific places for extra thermal mass, a solar water heater, and a rainwater collecting system.
Window geometry, size, and disposition can influence indoor lighting. Taller windows give greater penetrations and wider windows offer a better distribution of light.
Aside from the aesthetic value, the all-white surfaces of this interior combined with good lighting, maximize the potential of the architectural features.

Slanted windows allow natural light in without the glare and summer solar gain. This makes the interior less dependent on artificial light and allows for energy conservation.
Herzliya Green House

The careful management of natural and artificial light can generate important energy savings, while preventing glare and minimizing heat gains.