During the design of the building based on the environmental conditions (terrain slope, prevailing wind direction, orientation) we divided 3 functions within the site. Best suited for the local environmental conditions we started from a house form with inner courtyard and atrium. With the placement of the buildings we took into account the possible floor numbers (1-3 floors) and designed the buildings so that they can get the maximum natural daylight times.

Based on these we determined the necessary distance between the buildings: based on the daylight tests between the kindergarten and the secondary school 12,2 meters, between the kindergarten and the primary school 11,4 meters and between the secondary and primary school 16 meters minimal distance should be kept. Because of the difference in height of each building and the daylight needs the mass of the secondary school was held worthy of the northern part, the primary school for the southern part, and the kindergarten was placed as close as possible to the entrance because of functional reasons.

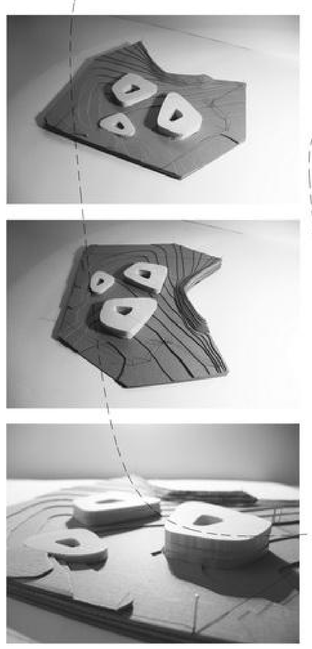
The resulting square, the traditional 3 buildings with inner courtyards were formed and rotated by taking into account the functional design, wind direction, daylighting and the conditions of the site, thus creating the modern, state of the art buildings. In the interest of ideal shading and highlighting the main entrance the building was cantilevered in given areas. Between the three buildings we created an agora, a public entrance zone which is suitable for organizing joint events and gives and appropriate representation of the entrance space.

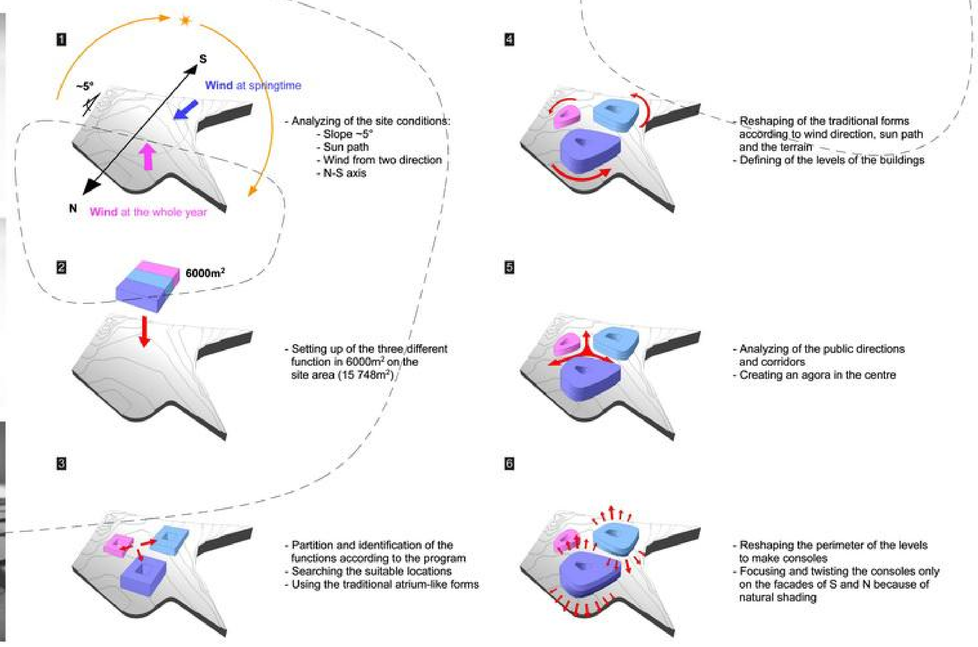
-1 Level Floor plan Scale 1:200

Sustainability is one of the most important keys to our future. Therefore, we think that all aspects of sustainability have to be considered while designing a building especially a school building. We tried to minimize the building footprint of the Bioclimatic School during the whole life cycle (construction, operation, demolition) and we believe that one of the most crucial aspect of this is energy efficiency.

Energy efficiency is highly important nowadays in Europe taking into consideration the fact that the EU's Energy Performance of Buildings Directive (EPBD), introduced in 2002 and recast in 2010, is the main legislative instrument for improving the energy performance of the building stock in the European Union. By 2020, all new buildings constructed in Europe, not to mention an increased number of existing buildings, must be nearly-zero energy buildings. The exact definition of this expression is not clear yet. However, it is extremely important to investigate the main aspects in time, with whom the energy consumption of the buildings may be reduced.
Therefore, we decided to design the Bioclimatic school in Crete in such a way that it approaches the 2020 standard of the EPBD directive by means of low-tech, natural and innovative technologies.

Other aspects of sustainable building construction has benn considered as well: (ezekez valahogy felsorolva)
Using local materials is an essential element of our proposal....pavement, stone, plastered wall, wood... etc.
Sustainable storm&rain&grey&waste&tap water management was considered as well.
Onsite renewable energy utilization: geothermal and solar energy





Site plan Scale 1:500

Bird's Eye view from South-East