



# International school in Shenzhen 深圳小径湾国际学校

This project for the new European Education Community of Shenzhen near Hong Kong, consists of an ensemble of buildings which form three areas; a living area, a study area and a night area. The site is located on a hill facing the sea, with a sub-tropical oceanic climate and with a large variation of ground elevations, ranging from 20m to 150m. The design takes the landscape topology and local climate as a basis for the conception.

A key consideration for this site is the flow of rainwater, which shapes the landscape. Rainwater is collected in a series of ponds and drained through some simple aqueducts, being recycled back into the water system along with purified grey water. Purification is carried out in anaerobic basins, followed by aerobic treatment with plants and gravel filter beds, and finally solar exposition. The complete process is clearly visible and easily understandable for children, providing an educational experience for the next generation.

The architecture follows the topology of this newly formed hill landscape, with a rhythmic composition of vertical laminated wood elements. In the outdoor spaces between the architecture one can find children's playgrounds, vegetable gardens, orchards, water basins and sports areas.

Energy and a bioclimatic strategy are core elements of the design. The architecture uses shading elements that follow the sun's orientation and also makes use of some other simple technologies such as heat pumps, solar thermal panels and a canadian well system. However, the design is intended to be as passive as possible through the use of high thermal mass walls, plants and trees for shading, water to reflect natural light and cool the air, sun shading on the facades to optimize and limit natural light penetration, and by taking advantage of cool ground temperatures in the basement.

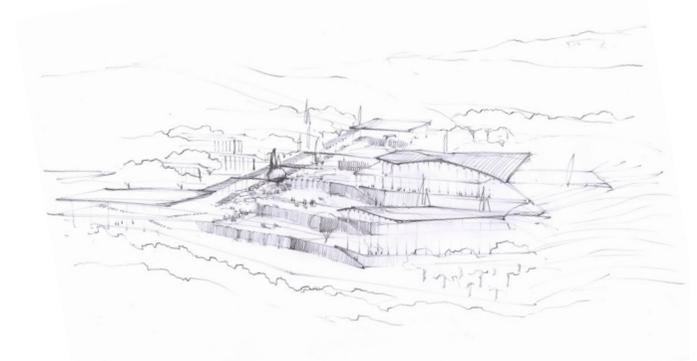
European Education Community of Shenzhen 深圳欧洲教育学校

Planning 规划

2012

Shenzhen, China 中国深圳

86530 km<sup>2</sup>



深圳欧洲教育学校是分为三个区的建筑群（生活区、学习区和休闲区）。项目位于面向大海的小丘之上，高程为20-150米，亚热带海洋性气候，景观地质和当地的气候是建筑设计的基本依据。

场地的基本元素（雨水）被收集在蓄水池中，通过沟渠被回收和重新纳入水系统。灰水净化在厌氧池内完成，之后的程序是需氧化处理-植物处理-砾石床-太阳照射。所有过程都清晰易懂，便于孩子理解。

建筑布置遵循重建成连续露台的景观走向，自然地在此植根，用木结构长廊确定空间节奏。中间地带构成了儿童乐园、水景、菜园、运动场。能源和生物气候战略是设计中不可缺少的元素。

建筑采光可根据日照角度调节百叶角度，利用简单科技（热泵，太阳能集热板和土气交换）实现能源再生：墙的惰性保证清凉的温度，植物制造荫凉，水可以反射自然光并且冷却空气，立面反射板整年为教室提供防晒，并优化自然光的渗透，地下室利用地面温度保证清凉。

