

SNAKE- Modular school in Ethiopia

The diploma thesis focuses on a modular school project in Ethiopia. It is estimated that by 2100 Ethiopia will be the economic power of modern China. Ethiopia is considered to be one of the fastest developing African countries, but the rapid population growth and an insufficient number of buildings lead to a low level of education and a worsening of the standard of living. The main problem faced by the state is the insufficient level of infrastructure development.

Most of the traditional architecture refers to the Nomads' way of life, so they are often built of light construction, without unnecessary window openings, the reason for this was their nomadic lifestyle. As the population increased and the style became more sedentary, problems arose with the lack of water and infrastructure. An additional problem encountered in construction is the lack of materials. Therefore, the modularity and ease of implementation of the proposed project allow for its quick construction and fill in the deficiencies in the area of schools in the country.

For the construction the main materials are bamboo and an earth block with the addition of banana fibers, such material is made on-site by the residents and workers involved in the construction. The school is the basic facility for the proper functioning of society, but in Africa, only a few individuals have the opportunity to study, therefore an important aspect in designing is to understand the needs of residents and create an alternative solution to the school space and scheme. The project is designed not only to increase the education rate of the population but also to show how to care for the immediate surroundings, cultivate plants and animals ecologically. Any kind of fruits and vegetables can grow in Ethiopia from tropical to temperate. Common fruit types include papaya, citrus, banana, mango, avocado, guava, grapes, pineapples, apple, passion fruit, and lemon. In the ideal situation, the product will be used to maintain the facilities.

Since 2003, education in public schools is free. However, many cannot afford to buy uniforms and pay for exams. Oftentimes, children have to help their parents earn a living. Even for those who can go to school, the quality of public education is so poor that they do not do well in their final exams. That is why many students do not go to high school and remain idle at home. Students will not only acquire knowledge but also put it into practice during practical classes, numerous areas of gardens and farms allow for the production of sufficient food for the entire facility.