

Silver 2008 Africa Middle East

Low-cost school and home for HIV orphans, Rakai, Uganda

Project data

Type of project Architecture (education)
Estimated start of construction September 2007

Main author

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Further author(s) & legal guardian(s)

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Comment of the Holcim Awards jury Africa Middle East

The project's notoriety lies in its long-term social and contextual impact. The conceptual philosophy consists of creating new homes for orphans caused by HIV/AIDS that reflect the local social traditions and habits, provide shelter and offer health care, educational and leisure amenities. The whole project strives for appropriate domestic technology and self-reliance: for example, the homes will be built by the orphans with local materials, utilize solar energy, and the community will produce their own food-stuffs.

The very simple modular block geometry of the buildings with a wide cantilever roof will generate poetic and diverse internal as well as external spaces. The project envisages the gradual evolution of the *Mukwano Home* into Mukwano Village through continuous additions of similar modular units as more children become integrated into the center. The older ones becoming adults will have the possibility to stay at the village with their families and thus contributing to the long-term development towards an organically grown and solid community.

Project description by author

The client is a non-profit organization named Mukwano, which means "intimate friends" in the local language of Luganda. Although the budget is limited to USD 30,000, the aim is to create a space where the orphans can develop their community like a family. By utilizing low-tech domestic construction techniques (brick wall and wooden roof structure), costs can be minimized and the orphans can participate and learn the building methods used on site.

A great deal of gha site is without any infrastructure. The required spaces avoid modern zoning which is typically applied in an urban situation and include: 2 large dormitories, 3 lecture rooms, 2 offices and a bathroom. Instead, the architecture is divided into 8 primitive huts and mixed up to create a village-like shape as much as possible, while retaining a functional relationship between each hut.

Since the children gather and have classes under a big tree, the tree should be situated in the center of the new architecture. The 8 huts surround the tree and link with each other. The in-between spaces have canopies which connect all the huts together and create triangular outdoor spaces, so the courtyards create a pleat-like open space with the triangular spaces in the plan. The canopies can provide shade within the courtyards and inspire the activity of the children. They can run, play, and work there comfortably even with the harsh sunshine and heat in Uganda.

The center courtyard features a well and solar-paneled roof for producing electricity. This encourages the independence of the site, particularly when the farming activities of the children are considered: they will be able to stand on their own feet here. In the future, as the population of the center grows, the orphanage can be extended with by more huts and become Mukwano Village. I expect that this architecture shall be a focal point of the village.

Relevance to target issues by author

Quantum change and transferability

In the *Mukwano Home* project, we have to deal with a large gha of land with no infrastructure, in a suburban area of Rakai, 200km south-west of the Ugandan capital, Kampala. The required rooms are planned in a contextual manner rather than using a modern zoning approach which works well in an urban situation. The architecture should be divided into 8 basic huts and mixed up to form a village-like shape. A focal point for the community was needed because there were no shelters under which the orphan community could gather. It is claimed that the strong center can make people have a strong community. In the future, as the children grow, they extend this orphanage with a lot of huts and it will become a village that brings lasting change. This concept can be transferred to the architecture of any developing country as no special technology is necessary.

Ethical standards and social equity

Mukwano is a non-profit organization for orphans impacted by HIV/AIDS in Uganda. Rakai is the home of Uganda's first known AIDS case. We acknowledged that many orphans who build their homes themselves are in a dangerous situation: with no education, and no prospects for work. We have to plan a home and a school to train them for work. The *Mukwano Home* aims to create a community like a family, where the orphans themselves, using low-tech (brick wall and wooden roof structure) building methods construct their community. The situation is completely different from that of developed countries. The orphans have to join the construction but it is joy and hope for them and provides them with basic building skills and a chance for future work. The *Mukwano Home* will be extended by the growing number of orphans and will become a village.

Ecological quality and energy conservation

Without any infrastructure, it is aimed that natural resources such as sunlight, rainwater and well should be made the most of by the low technique. The center court has an underground tank of rainwater and the roof has solar panels producing electricity. The canopies also can make shadow on the court and trigger the activity of the children.

Economic performance and compatibility

The project is based on volunteers and has a limited budget of USD 30,000 for 180m². In Uganda, building material prices are very high so no special technique for the structure is used and the use of windows is restricted and efficiently planned. The orphans also join the construction to learn the way to build houses for the future extension. This can also save money.

Contextual and aesthetic impact

Since there is a community tradition that the children gather and have many classes under a big tree, the tree is therefore situated in the center of the new architecture. The 8 huts surround the tree and link with each other. Through the 8 in-between spaces of the huts, the courtyard can be connected to the existing view. The orphans can comfortably feel surrounded by the existing view and the huts.



Center courtyard of the *Mukwano Home*: basic huts gather and become the home with connecting canopies.



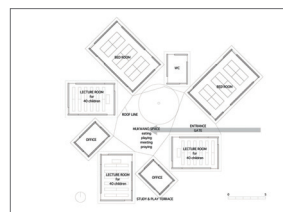
Mukwano Home: photo of construction site. The huts surround an existing tree in the center court.



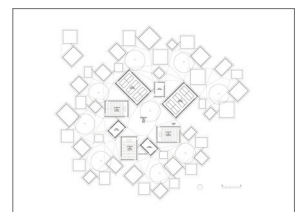
The orphans assist and learn building techniques.



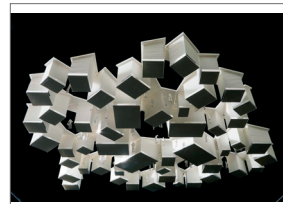
Model: roof structure.



Mukwano Home: plan.



Mukwano Village: plan.



Model photo: from ground.

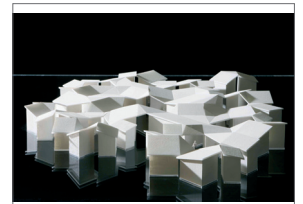
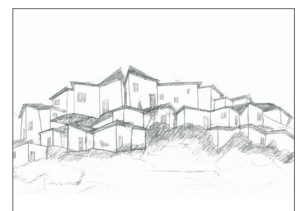


Photo: from above.



Expanding Mukwano Village.



Sketch: Mukwano Village.