



## CHAMAZI COMMUNITY CENTER

The project aims at building a community centre in a neighbourhood called Chamazi to pilot and spread knowledge about affordable construction methods, and create a meeting place for the community members. The project is located in Dar es Salaam, Tanzania. The Community Center will be located in a low-income neighbourhood about 20 kilometers from the center of Dar es Salaam. The inhabitants of Chamazi ward have been previously evicted from an illegal settlement, and the community is now in the process of constructing a new legal neighborhood for themselves. The overall objective of the project is to pass on expertise about safe and affordable construction methods to be utilized in the further development of the neighborhood.

The Community Center will be constructed using a method that utilizes recycled water bottles for low-cost constructions that can be built with simple machinery by the community members themselves. A suitable building site for the Community Center was picked out during a visit to Dar es Salaam in spring 2014. The project plan for the Community Center has been drafted by a multidisciplinary team in 2014 during a Master level course in Aalto University, Helsinki, Finland. The project is in the process of searching for funding.



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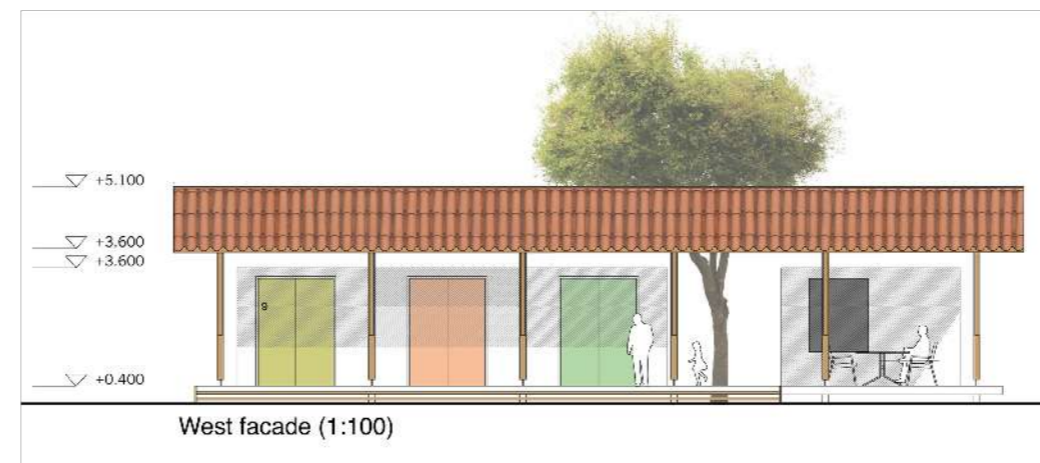
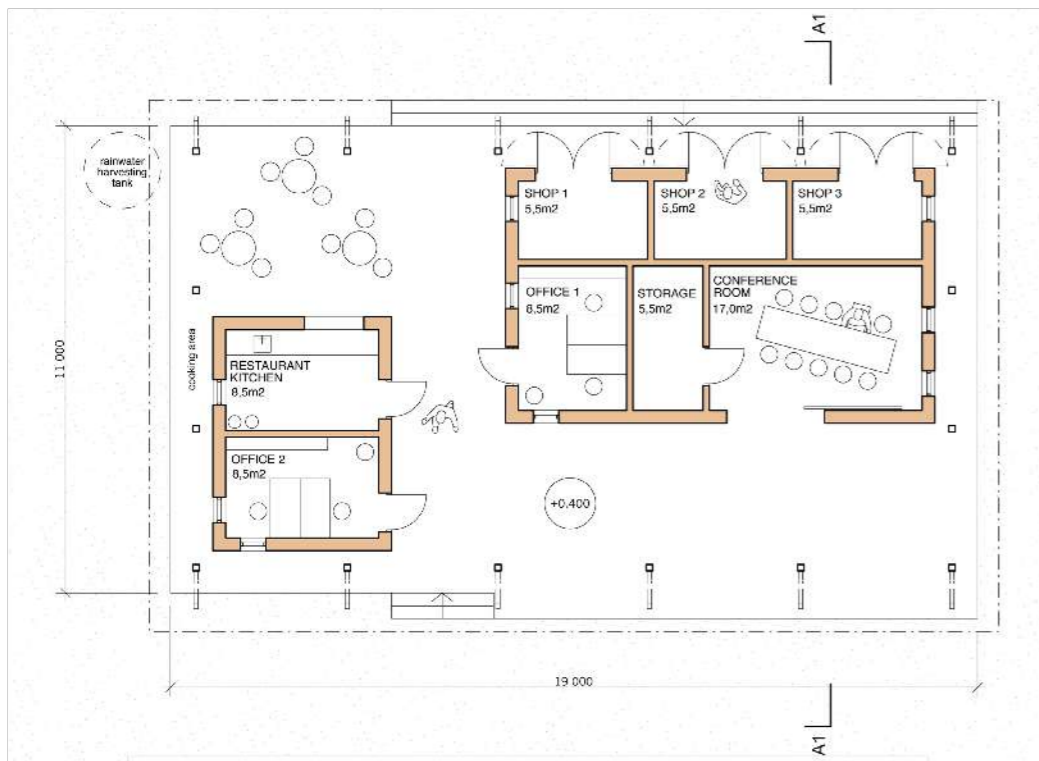


**CREATING A PLACE WHERE THE COMMUNITY CAN MEET AND ORGANIZE THEMSELVES**

The key idea behind the community center project is to support the people of Chamazi to utilize their strong sense of community to create a neighbourhood that is sustainable both socially and physically. The inhabitants of Chamazi have already come a long way as a community by forming a co-operative to legally purchase the piece of land that they now own in the Chamazi ward. However, the area is still completely lacking suitable spaces for meeting and retail. The need for a community center building was initiated by the community members themselves.

Right: Discussing the design and functions of the building with the Chamazi community during spring and summer 2014.

Left: Muungano Housing Co-operative having a meeting in their temporary meeting space in summer 2014.



The main function of the community center is to provide a space where the community can organize themselves and make decisions. The project team felt that the most crucial aspect of the project was to make the community feel that they have full ownership of the project. To support this in the project planning stage, the physical building was designed in close co-operation with the community members over several visits to Dar es Salaam by the project team. The implementation plan and business model of the community center were seen as equally important to the physical design and construction of the building.

(The Hasselt Charter entity number 8.)

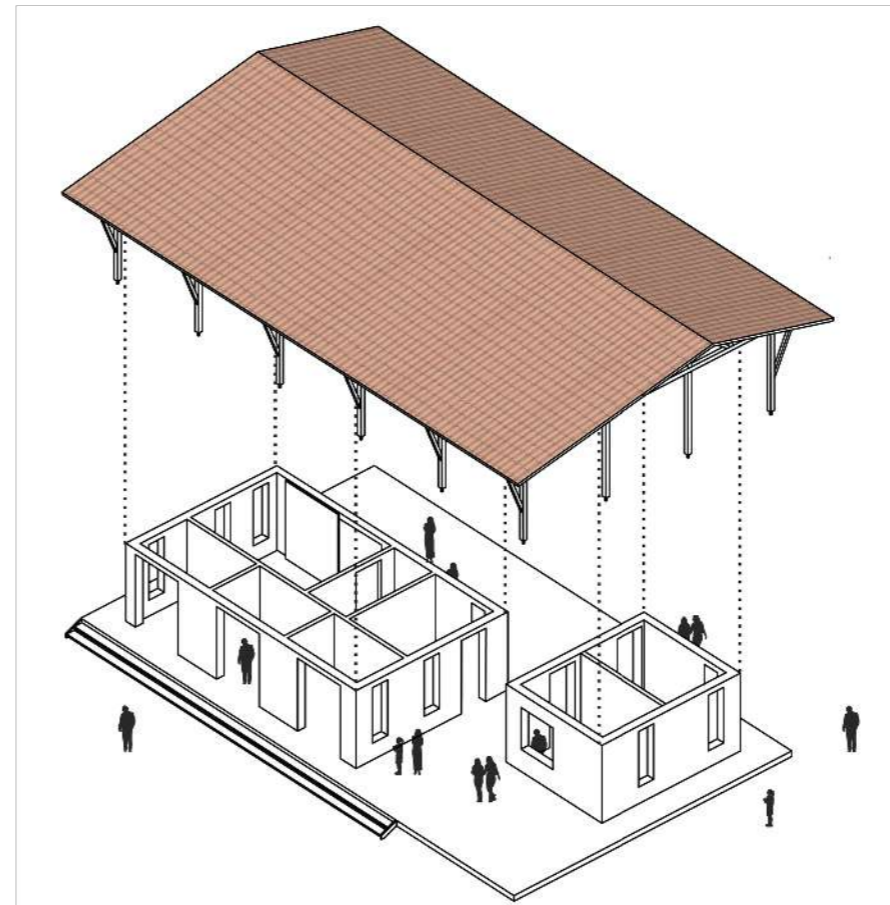
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The chosen materials and construction methods include techniques that the community members are already familiar with, as well as modifications of traditional tanzanian construction methods.

### TOWARDS A SELF-SUFFICIENT NEIGHBORHOOD

The inhabitants of Chamazi have previously funded the construction of their new neighbourhood through micro loan –schemes and funding from NGOs. The current cost of the houses and the income level of the families are not compatible, which is why the community remains heavily reliant on external funding. The objective of the Community Center Project is to promote the self-sufficiency of the inhabitants by exploring affordable construction techniques, that would allow for lower price of the houses.



The inhabitants are currently carrying out all construction tasks in the area independently without hiring external contractors. The project aims at utilizing the current construction knowledge of the inhabitants by constructing the community center with the labour, techniques and resources that already exist on the site. For example the community members are already familiar with making wooden roof trusses and the roof tiles are produced on site in Chamazi.

The objective of the Community Center projects is therefore not primarily to deliver a finished building but instead to involve the community members in the process so that they can receive more training in construction and later adapt the new skills into providing new safer and more affordable housing.

(The Hasselt Charter entity number 1.)

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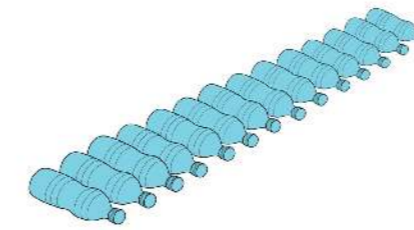


Making educational material and testing the bottle wall technique in a laboratory environment during autumn 2014.

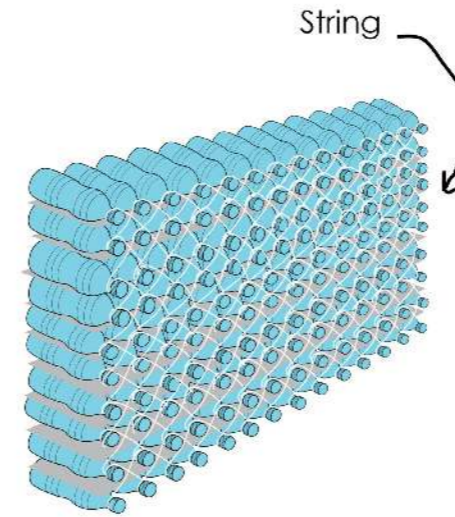
**SUSTAINABLE BUILDING METHODS**

To increase affordability, the best construction methods for Chamazi are ones that the community members can implement themselves without a need to hire professional contractors. The community members have received construction training during the previous building phases of the neighbourhood, and should be given the chance to utilize this expertise in future constructions.

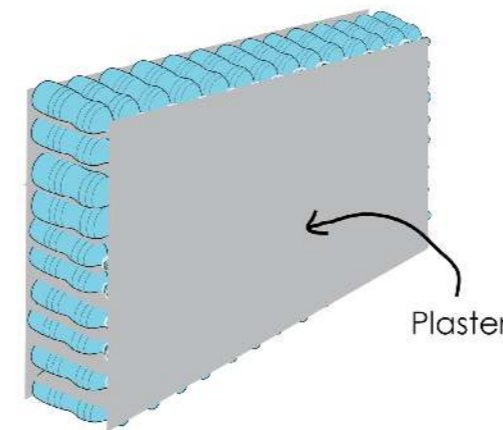
The plastic bottle construction technology was chosen as one of the most promising technologies to be piloted in the community center building. Virtual simulation and calculations have proven that the bottle technology is both more cost-effective and more durable than the current brick technique used in Chamazi. A plastic bottle wall is load-bearing, and can be constructed manually without the need for expensive machinery. Building is relatively easy so a wide range of community members can participate. The technology contributes to environmental sustainability through the use of recycled and local materials. The utilization of recycled water bottles and other waste materials will create incentives for the inhabitants to collect those materials, thus preventing littering. The feasibility of the technology has been tested in a structural testing laboratory in Aalto University during autumn 2014. Small test walls have also been constructed in different locations in Dar es Salaam.



Step 1.



Step 2.



Step 3.

**Introducing the bottle wall technology**



■ Validate bottle wall technology  
■ Transfer knowledge & ownership  
■ Official building permits

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(The Hasselt Charter entity number 5.)