

DESIGN+BUILD

# EARTH ARCHITECTURE COMPETITION

## A School for Tanzania



## Intro

C-re-aid is launching its first design+build competition in partnership with **Jubilant Tanzania**, a school and orphanage located in Northern Tanzania that has provided orphans in Moshi with a caring home and education since 2006. More than **150 orphans** have grown up with care and successfully adapted to the society afterwards. They also sponsor underprivileged children with scholarship and support families living in poverty.

This competition gives you the opportunity to work on the design and construction of a nursery school for the orphans of Jubilant, ages 2 to 6 years old.

The main **objective of this project** is to create a sustainable space where kids can start their educational journey feeling like at home - a place to learn, discover and play.

More information about our partner organization can be found here: <https://info325360.wixsite.com/jubilanttanzania>

## Cultural Context

It is estimated that 3 million Tanzanian children are orphaned as a result of HIV and AIDS with this not being the only cause for the children's vulnerability in Tanzania. Other factors include living in an abusive environment, living with a sick parent or guardian, living with a disability, living in elderly-headed households or living with families facing absolute poverty. All of these situations can make children vulnerable to abuse and exploitation, illness, withdrawal from school, and emotional distress and trauma. Around 11,216 orphans and vulnerable children live in residential care centres.

The situation of the orphans is exacerbated by poverty since parents or caretakers do not generate enough income to maintain them. It is estimated that more than two thirds of Tanzanian population is living below the international poverty line (about 1.25\$ per day), and an estimate of 90% of the total population lives below 2\$ per day . This implies that many families are living in poverty with the most affected group being the children, due to a lack of necessary resources to ensure their sustainable well-being.

## Location

The plot is located in **Uru Kusini** Moshi district, one of the seven districts of the Kilimanjaro Region of Tanzania. The district is bordered to the north by the Moshi Rural District, to the east by the Mwanga District and to the south and west by the Manyara Region.

The site is located within few meters distance to the main termac road with easy access but safe from heavy traffic. The distance from Moshi town centre is only 5 km.

**Location coordinates: 3°18'16.6"S 37°20'40.3"E**

The site has an area of **800 sqm** in rectangular shape of **20 m x 40 m approx.**



## Local climate

The Kilimanjaro region has typically **two distinct rainfall seasons**; August to October and February to April, with the driest months occurring between November to January. Rainfall decreases rapidly with increase in altitude. The prevailing winds, influenced by the trade winds, are from the southeast. North-facing slopes receive far less rainfall. January to March are the warmest months. Conditions above 4000m can be extreme with considerable diurnal temperature ranges.

The average annual **temperature in Moshi is 23.4 degrees °C**. The region faces significant risks from climate change, with a rise in mean temperature, a decrease in annual precipitation and an increase in variability with the rainfall patterns becoming increasingly uni-modal. These occurrences have increased the vulnerability as farmers may have less water available for crop cultivation.

## Program

The program is a suggestion; the stated spaces are necessary but their sizes can vary according to your design.

The proposed program should have the following characteristics:

**3 Classrooms:** Each classroom will have a minimum of 25 students. Each room should have enough natural light and good ventilation. It should as well be flexible allowing other activities to take place (in nursery schools it is common to see kids having their breakfast or their after-food naps inside the classroom).

**1 Teachers' office:** The room will be used by the teachers to welcome visitors and have work meetings. It should accommodate at least 5 people.

**1 Washroom:** There should be 1 toilet for girls and 1 toilet for boys, including a water tap and enough extra space to place a water bucket.

**1 Storage room:** It should have enough space to keep cleaning materials and school supplies.

**1 Kitchen:** An outdoor kitchen with built-in stove to prepare breakfast and lunch, should have enough space for 2 cooks and serving area.

**1 Outdoor play area:** The outdoor space should be a multipurpose area where the children can play, rest or have their food. A vegetable garden could be added to provide for the school meals.

## Materials +building Technique

C-re-aid NGO works with **CEBs (compressed earth bricks)**, therefore that will be the main construction material for this project.

**Compressed earth bricks (CEB)**, or **compressed stabilised earth bricks (CSEB)**, are solid earth bricks made from subsoil, which is processed and compressed at optimum moisture content and at high pressure in a specialised machine. You will be able to find all the information needed regarding these bricks in the competition folder.

Other common building materials in Tanzania include steel, timber, cement blocks and locally sourced materials such burn or unburned clay bricks (most used as it is the most economic way of building), bamboo, palm leaves, wattle and daub.

We will facilitate a material database in the competition folder with material availability and prices.

## Competition Details

**Registration opens:** 15th June 2020

**Submission deadline:** 1st October 2020

**Jury project selection:** 15th October -15th November 2020

**Winning projects announcement:** 20th November 2020

**Target audience:** open to students, recent graduates, or professionals in architecture regardless of their nationality.

**Build workshop:** Summer 2021

### PRICES

**1st prize:** \$1,000 or project construction trip to Tanzania and internship with C-re-aid + printed book with selected submissions\* + International exhibition

**2nd Prize:** \$500 or project construction + printed book with selected submissions + international exhibition

**2 honorable mentions:** printed book with selected submissions + international exhibition\*

**\*International Exhibition**

An exhibition of all the winning entries and honorable mentions will be held in Belgium and in Tanzania.

**\*A book with selected submissions and end of competition results will be released.**

# Competition Details

## Fees:

**Early registration:** \$40 Individual or \$70 Team (15th June - 15th July)

**Regular registration:** \$50 Individual or \$80 Team (15th July - 31st August)

**Late registration:** \$60 Individual or \$90 Team (1st September - 30th September)

- Multiple entries are allowed. Only one prize per participant.
- Each design entry will require an individual fee.
- Note that in the case of a team entry winning, the organization will only cover the expenses of one team member.
- To register complete the **Application form** on our website Competition page
- **Payment methods:** Transferwise [candelfreya@gmail.com](mailto:candelfreya@gmail.com) or directly to the NGO's bank account. Please, specify the name and reason for payment.

**C-re-aid vzw. KBC bank**

**IBAN: BE19 7390 1100 0912**

**BIC: KREDBEBB**

- After registration and payment are completed you will receive an email with all working materials together with a **unique competition entry number** per submission.

## ■ **Submission format:**

A statement explaining your design concept (max 700 words).

Three A2 presentation boards submitted as high printing resolution PDF.

Each board and file should specify the project title and competition entry number. Submission must include a well-explained site plan, floor plan, elevation, sections, and 3D perspectives.

■ **Submission language:** English

■ **Copyright:** Participants agree that all material submitted to C-re-aid can be used free of copyright for marketing purposes .

■ Submit your final proposal to [competitions@c-re-aid.org](mailto:competitions@c-re-aid.org)

■ Available discussion platform for participants:

**C-re-aid NGO Architecture Competition facebook group.**

■ If the winner(s) choose construction as the competition award, it will be the winner's responsibility to find volunteers to collaborate in project construction. Winner(s) will be assisted at all times by the C-re-aid team.

# selection criteria

Our judges will evaluate your project on four key criteria; Conceptual innovation, functionality, environmental and social impact.

The jury may add other criteria that they consider relevant.

## **1) Overall planning and relationship to context**

- Coherence and surroundings integration
- Entrance position
- Access and Urban Context
- Architectural design and impact of spatial ensemble
- Integration into urban and landscape context
- Function and quality of landscape design
- Originality, inspiration and innovation of the concept

## **2) functional and spatial programme, i.e.**

- Fulfilment of spatial programme
- Functional organisation
- Spatial and design qualities
- Security
- Internal circulation
- External access

## **3) Feasible approach to an energy/environmental concept and compliance**

with the main features of the

ECB's technical requirements, i.e.

- Life cycle costs (investment costs and operating costs)
- Energy and technical concept
- Economic feasibility



# Jury members



**Arch. Dr Daniel Mbisso**  
Senior Lecturer and  
Head of Architecture  
Department at Ardhi University  
(Tanzania)



**Jasper Van der Linden**  
Architect, Workshop program  
manager at BC materials  
(Belgium)



**Freya Candel**  
Architect, Director of  
*C-re-aid Architecture*  
*Non for profit organisation*  
(Tanzania)



**Paul Kenis**  
Lecturer at department of  
Construction Technology at  
University College Odisee  
(Belgium)



**Peggy Winkels**  
Lecturer UHasselt University  
PG & Master Design studio  
coordinator *Building Beyond  
Borders Master programme*  
(Belgium)



**Edward Dale-Harris**  
Founder of SAWA  
Architecture+ ARB Architect.  
(United Kingdom)

Participants may submit any questions to [competitions@c-re-aid.org](mailto:competitions@c-re-aid.org)