INSPIRELI KASHITU SCHOOL Competition – Design and Build

Student Architectural competition for a conceptual design of the Secondary School in Rural Zambia – Kashitu School

Competition Conditions
Prague, August 2024

Announcer:
Czech Technical University in Prague (CTU)
Jugoslávských partyzánů 3, Prague 6 – Dejvice

Competition Organizer:
INSPIRELI AWARDS z.u.
Department of Architecture at CTU in Prague Thákurova 7, 166 29 Praha 6

With the support of:
Architekti bez hranic (Architects Without Borders)
Archangelská 864/2, 100 00 Praha 10 – Vršovice

Content:

01. INTRODUCTION

Competition subject
The subject of the architectural competition is the design of secondary school campus buildings in Kashitu, Zambia.
In rural Zambia, students leaving primary schools have limited opportunities to continue their education at secondary school. Kashitu is a large area located on the border of Central and Copperbelt Province with a population of 18, 000 people. However, there is no secondary school within a 40 km radius. Meanwhile, there are more than eight primary schools in Kashitu, where over 1,000 students graduate annually without further educational opportunities.

To address this issue, the Zambian non-governmental organization (NGO) New Renato Community Society initiated the **Kashitu Secondary School project** in partnership with Czech NGO Přátelé New Renato (Friends of New Renato) and a student group at the Czech Technical University in Prague.
The subject of this competition is to design the remaining school buildings in harmony with local customs, climate, and building education and construction regulations. A site layout study may be included but is not mandatory.

Type of the competition, conditions to participate
Architectural, student, non-anonymous, open to all students from around the world without restrictions.

Competition Conditions and Brief
Competition conditions and brief will also be displayed on the Competition's website at www.inspireli.com - the competition page is twww.inspireli.com/kashitu

Competition benefit / offer
The winning team will be given the opportunity to construct one of the designed buildings. (This does not guarantee the provision of funding for the construction).

02. BRIEF

02a Secondary school context

The school capacity should initially serve 250 students distributed in a 5-year-long study curriculum. The final school capacity is 400 students. The proposed campus will serve as a boarding school but will also welcome students from nearby areas. Students will be educated in both academic and practical education. The whole project is being developed and realized with a close collaboration with the local community which will participate in the construction.

The secondary school construction is planned at a plot of 7 hectares. The campus should encompass classrooms, practical education facilities, such as workshops and laboratories, boarding facilities, including a dining hall and dormitories, and an assembly hall. The accommodation of teachers is not included in the assignment (It will be placed on a nearby plot but it is not part of the competition. It is marked building phase 2 in the attached

masterplan). Three buildings were already constructed on the secondary school plot. First is a carpentry workshop which will be used as the base for other buildings constructions. The other is a family house for the secondary school watchmen. The third building is a nearby nursery, constructed more than 10 years ago, where the preschool education is taking place.

02b Building catalog

Inspireli Kashitu architectural competition calls for innovative student designs of the buildings in the Kashitu Secondary School Campus which would push both architectural and technical boundaries of the current design of a typical Zambian school.

It is advised that the proposal is structured as a catalog of building designs. The included designs should contain:

- 8 classrooms for academic purposes *
- 3 laboratory classrooms (biology, chemistry, physics) *
- 2 workshop buildings for practical education which would contain the rooms for teaching agriculture, cooking, tailoring, and metal fabrication (A workshop for bricklaying and carpentry was already constructed)
- boarding facilities for students (dormitories providing accommodation for boys and girls separately, including related facilities)
- school kitchen with dining hall *
- teachers' offices including meeting room *
- sick bay with doctor's office * (the doctor will not be permanently stationed there)
- toilets for the teachers and students (preferably as separate buildings) *
- watchman building with a front desk
- honey harvesting and beekeeping education unit
- multifunctional assembly hall with an outdoor assembly area
- parking for cars, recreation areas for students (parks with benches, playgrounds for basketball and football, outside gym, etc.) (not mandatory)

* it might be required to meet Zambian regulations, see the links below.

Each classroom should be designed for 30 students with the possibility of extending the classroom capacity up to 50 students. Contestants must design all parts listed above. More rooms can be organized in one building.

The design of the future campus layout is an optional part of the assignment. Despite the fact that the preliminary master plan has been already designed, it is recommended to challenge it and adjust it according to the proposed building designs.

02c design principles

Furthermore, it is expected for the entries to adhere to the following 4 principles:

1) **Easy to build & Low cost**

To facilitate the replication of individual buildings by the local community, the design should be simple and replicable. Most of the buildings should be designed based on the same construction system, with a few exceptions only (such as the assembly hall). Repetition of the structural system is important to ensure easy implementation, which will be done in

close collaboration with the local community. Therefore, the technology has to be simple enough, so that local workers can learn to build the construction with minimal supervision during the construction process only. All buildings should be easily maintainable and cleanable. Expensive or locally unavailable construction principles and materials should be avoided.

2) Use of local materials

The material solution should be focused on the use of local resources.

Structural systems should be based mainly on interlocking cement earth block (ICEB) with dimensions 140x290 mm in the single-laid walls with mortar and wall with thickness of 290 mm in the double-laid mortar walls).

Classrooms, laboratories, dining hall, dorms, and other buildings are supposed to use ICEB for main bearing structures. Only additional bearing or non-bearing elements can be made of other materials. However, those should be available locally and preferably also locally produced.

For the remaining buildings (mainly the assembly hall), the contestants can use structures corresponding to the building size. However, ICEB still shall be used as much as possible.

3) Focus on the climate

Regarding the special design, keeping the local climate in mind is very important. The design should accommodate both the specific acoustics requirements during the rainy season and also address the temperature conditions of the rooms in the periods of heat. In addition, special focus shall be placed on the light and the humidity conditions in the structures.

The ultimate goal should be to reach an optimal environment inside the buildings without complicated technological solutions (HVAC systems). There is also a need to save valuable sources of water and electricity, which supply is unreliable due to the local conditions. The North/south orientation of the buildings should be clear from the designs of each building.

4) Respecting local culture and regulations

The design shall respect the local culture and customs of how the buildings are used.

The school will be used by the local community, and therefore, most of the technologies and principles should stem from the local building tradition (local architecture, cultural overlap using bricks as a main material). One of the goals of the project is to improve construction technologies used locally, this is why construction technology should be as simple as possible and easy to learn (even with very limited previous experience in construction).

Lastly, the design of the buildings should respect local climate, culture, and regulations given by the Ministry of Education and District Education Board Secretary DEBS:

- Standards and Evaluation Guidelines for the Ministry of Education, Science, Vocational Training and Early Education: Standards-and-Evaluation-Guidelines-9th-April-2015.pdf (lataz.org.zm)

- Approved Drawings for Education: Approved Drawings for Education – Ministry of Local Government and Rural Development (mlgrd.gov.zm). (These designs are not compulsory, but they are widely used in the area. They represents a standard government school design and can provide insights into local expectations for a school. The contestants should challenge these designs.)

03. Timeline and Deadlines

Competition opened, publication of conditions	1.10.2024
Presentation of the competition conditions	www.inspireli.com
Submission of competing proposals	15.6.2025
Announcement of Finalist	July 2025
Competition results announcement	Autumn 2025 (per Announcer)

04. Prizes and Rewards

This is a non-profit project and therefore it is not possible to provide financial prizes. The winning team will be given the opportunity to build the selected building by themselves, on site in Zambia. (Winning the competition does not guarantee the provision of funds for construction, transportation, or accommodation of the team members. However, the participating organizations will provide support in obtaining funding for the construction, transport and accommodation)

In case of construction of the design (s), the name(s) of the author(s) of the winning design(s) will be displayed at the appropriate building, which will come from the r winning design.

05. Jury & Judging Criteria

The participants are encouraged to implement new and advanced technologies as well as sustainable yet diverse building materials into their designs to create an architectural masterpiece that is bold in both form and function**.**

05a Evaluation criteria

The criteria according to which the competition proposals will be evaluated are determined, without order of importance, as follows:

a) Compliance of the proposal with the competition conditions
b) Quality of the architectural solution: originality, creativity**,** and real feasibility of the proposal
c) Suitability of the design for local conditions (climatic, cultural, legal)

05b Jury:

- Chairman: Jan Tilinger
- Juror: Petr Čanda (Project Coordinator)
- Juror: Bornface Mamfunda (Chairman of New Renato Community Society)
- Juror: Anežka Havránková (Chairman of Přátelé New Renato)

The other members of the jury will be specified latter

06. Registration Process

Students can enter the competition individually or in groups (unlimited number of members). Each project that competes in this competition also competes in the 10th edition of the global INSPIRELI AWARDS competition. Submission and registration is though the website www.inspireli.com.

07. Submission Process & Rules

By submitting the designs, contestants agree that the competition's announcer, NGO Přátelé New Reanto, and NGO New Renato Community Society may use the submitted design(s), in whole or in part, to construct the secondary school in the Kashitu area.

INSPIRELI AWARDSs reserves the right to make any changes to the competition rules (deadlines, requirements, etc.). It is the responsibility of entrants to check the INSPIRELI AWARDS website regularly for any changes to the terms and conditions or competition information.

The competition is only a theoretical project of what could be done, and INSPIRELI AWARDS will not be held responsible if the situation with the announcer of the competition changes, local conditions change, or unexpected circumstances happen in the construction of the project. INSPIRELI AWARDS also cannot guarantee that the competition entries will actually be used for the actual design.

INSPIRELI AWARDS reserves the right to change both the prizes and the dates and performance of the entire competition.

Entry and registration are governed by the standard INSPIRELI AWARDS competition rules.
https://www.inspireli.com/en/awards/rules

08. Technological Advisor / Educational Part:

Students will have an opportunity to consult their solutions directly from the engineers of the manufacturing companies – so-called „Technological Advisors“ - from different fields in construction. Students can contact them directly via contact form at the competition’s website and they can answer your questions about certain technologies or products.

09. Attachments:

Plan of the construction plot with already constructed buildings
Photo Documentation of the construction plot
Google map