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### FACULTY OF ARCHITECTURE AND ENVIRONMENTAL DESIGN KIGALI

Posted on February 12, 2020 by martabuges



Categories: <u>africanCities</u>, <u>Low Density</u>, <u>Project</u>, <u>S&AA – Patrick Schweitzer et Associés</u> <u>Architectes</u>, <u>Territory and mobility</u>

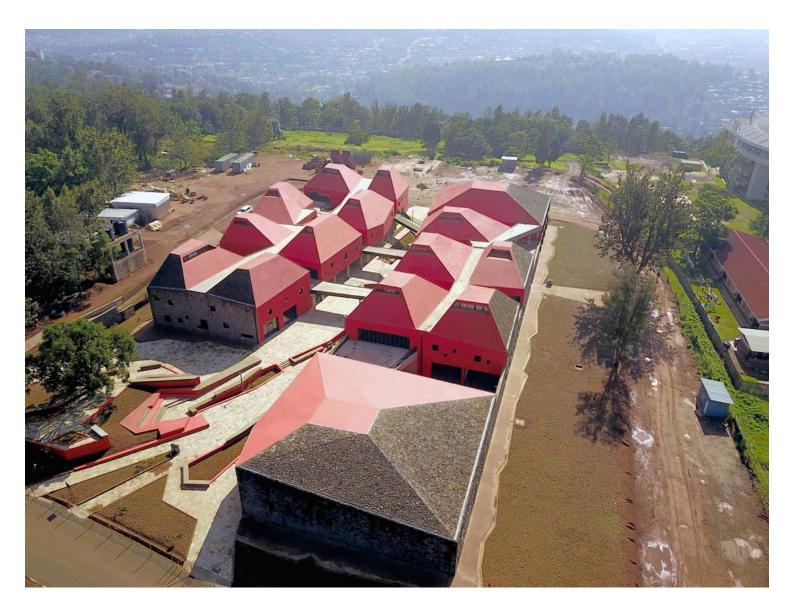
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Low impact, Materials, Project, Rain Water
Harvesting, Rwanda, School, Solar Energy,
Thermal comfort, Topography

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The architecture Practice Patrick Schweitzer & Associés responded to the international call launched by the Government of Rwanda in March 2012 for the construction of the new Faculty of Architecture in Kigali. This school covers an area of 5,600 square meters and has the capacity to accommodate 600 students. It is located on the University of Rwanda's College of Science and Technology campus in Nyarugenge District. The works started in early 2017 and were completed in 2018.

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### **Territory**

The building is the result of a global site analysis. Its architecture is inspired by the territory and by colors and shapes found in nature. The four natural elements are represented in the conception of the building: Fire – orange color; Water – inner garden; Air – circulations; and Earth – lava rock and rammed earth. We created prisms inspired by the landscape and topography of Rwanda. We broke their volume down to create fault lines and canyons. A central fault line emerges: the outdoor living

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space. It opens the project to the KIST entrance, to the valley and to the city.



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### **Sharing Architectural Knowledge**

The practice was determined to build a project that would also be a teaching tool. Indeed, the architecture shows the building process to the students. It is also fundamental in encouraging aspiring young architects to use local resources.

### **Reducing Environmental Impact**

By using local resources and materials such as lava rock, rammed earth and raw or painted concrete, and by reducing imports and eliminating technical solutions which are difficult to build or maintain, we reduced the environmental impact of the building.

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### **Traditional and Local Skills**

Carpentry and locksmith workshops were installed on the site. Ceilings and joineries are made of local wood, slabs were cast-in-place and traditional removable formwork was also used, thus fostering local sectors. There were up to 400 people working on the building site.

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### **Simple Technical Solutions to Build and to Maintain**

There is no elevator but a large and comfortable ramp to get to the second floor. There is no heating and air-conditioning equipment but an efficient natural ventilation system. The architecture is used for regulating temperatures. Properly designed daylighting provides healthier and more pleasant conditions. It also reduces demand for artificial lighting, which can reduce running costs. The concrete walls are insulated, sealed and plastered from the outside with the aim of controlling the solar heat gain. The building is also fitted with rainwater harvesting and storage units.

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### **Two-story Organization**

The ground floor includes logistic and school facilities: administration, laboratories, workshops, seminar rooms and auditorium. On the first floor, 13 prisms house architecture studios, classrooms and pin-up spaces. Each room has a distinct identity, reflected in its volume, color and view. The outdoor living space which includes stands and benches favors meetings, exchanges and performances. The two parts of the building are connected by several footbridges. On the one hand they provide a connection between the different parts of the project and on the other hand they generate a dynamic visual identity.

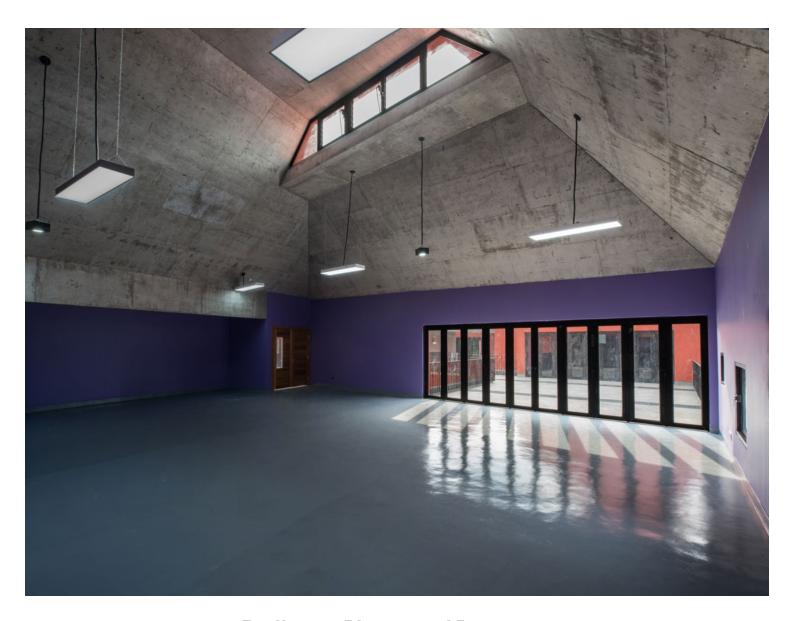
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**Two Vectors: Education and Environment** 

The agency selected a strong design with complex shapes. The architecture is based on the environment and pedagogical aspirations. Halfway between traditional and contemporary architecture, the building is based on a simple and didactic architecture in an African developing country where the population is expected to double by 2050.

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