



Entebbe, Emergency hospital in final stages of completion: "scandalous beauty" and pragmatism at the hospital designed by RPBW and TAMassociati

The beauty of this Centre "is not cosmetic": the story of Giorgio Grandi, project manager for the Ugandan hospital

The Centre of Excellence in Paediatric Surgery is almost finished (works are expected to be finished by the end of the year). The centre will offer free, quality care to African children. Valentina, Eirinaios, Paul Antoine, Andrea, Raúl and Lukas will visit the hospital at the end of RPWT 2019.

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The **Pragmatism** of who persists in obtaining, even in a sometimes unscrupulous way, tangible results. **Experimentation**, to renew secular construction techniques and bring them into the "new" millennium. Finally, the "**scandalous beauty**", requested by an enlightened and visionary client, who needs no introduction—, **Gino Strada**.

Pragmatism, experimentation and beauty are the terms that describe the project for the new **Emergency Paediatric Surgery Centre of Excellence** in Entebbe, Uganda. The first stone was laid in February 2017 and the construction is expected to be completed by the end of the year.

The six architects visited the site. They are travellers of the [Renzo Piano World Tour](#), a 40-day world tour supported by the [Renzo Piano Foundation](#), [Botín](#), [Stavros Niarchos](#) and [The Vitra Design Foundations](#), the Norwegian real estate operator [Selvaag Gruppen](#) and [Taschen Publications](#).

The hospital, as is well known, was designed by the **Renzo Piano Building Workshop** (RPBW) with **TAMassociati** and with the collaboration of **Milan Ingegneria** (structural design), **Prisma Engineering** (plant design), **Franco and Simona Giorgetta - Landscape architects** and **GAE Engineering** (fire-safety design).

“Healing architecture” is not enough: beauty must be "scandalous"

The place is exceptional. As is its purpose. The paediatric centre is located in an area surrounded by greenery, not far from the shores of Lake Victoria. *"It is in front of the lake, at an altitude of 1,200 metres, so in itself it is a healthy place, surrounded by greenery, it really has all the characteristics to be able to provide even that healing beauty that you look for in a hospital,"* says **Giorgio Grandi**, architect and project manager for the Ugandan hospital, former partner and now fellow of the **RPBW**. Even if today the concept of **"healing architecture"** is not only poetry, but supported by scientific evidence, it cannot be enough to describe an Emergency hospital. Thus, even the word beauty could not stand alone, but needed an adjective: **"scandalous."**

The author of the unusual combination of words - says Grandi - was Gino Strada, *"but that's not a joke, scandalous beauty is a fundamental value for Emergency's hospital,"* the architect points out. *"But it is not cosmetic, it is not just aesthetics",* he warns, recalling the inseparable link between the words "beautiful" and "good" in many Mediterranean civilisations, starting with the **"kalos kai agathòs"** of the Greeks, and retracing a thought expressed publicly on some occasions by Renzo Piano. In short, what is beautiful can only be good and vice versa. As if to say that aesthetic beauty, which does not require formal feats, conceals the good soul of things, *utilitas*, which in this case is identified with the free and excellent care of African children. *"And, free treatment in Africa, the treatment of the highest level, is still an element of scandal,"* adds Grandi.

Claiming the universal right to health is the theme that comes to fruition with architecture. And, in this context, beauty can only be crucial because equal dignity among human beings, respect, the action of "taking care", find their maximum expression in the right—also universal—to live in welcoming, comfortable, reassuring spaces, even better if they reflect the local identity. The hospital will also function as a higher education centre for medical and paramedical staff.

THE CENTRE OF PAEDIATRIC EXCELLENCE IN NUMBERS

- The centre is located on a plot of **122 thousand square metres**, **35 km** from the capital Kampala.
- It will have **72 ward beds**, **3 operating theatres** and all the diagnostic and auxiliary services necessary for its operation, such as a laboratory, a blood bank, a pharmacy, a canteen, a laundry facility. In view of the arrival of patients from various countries, a **guest house with 42 beds**, dedicated to children and their loved ones, is also planned.
- In the middle of the complex there will be a **garden with 350 trees**: greenery is an important element for the recovery and healing of patients.
- **2.600 photovoltaic panels** ensure the electrical autonomy of the hospital during the day.

Pragmatism and experimentation: from the rammed earth technique to the "artisan" garden

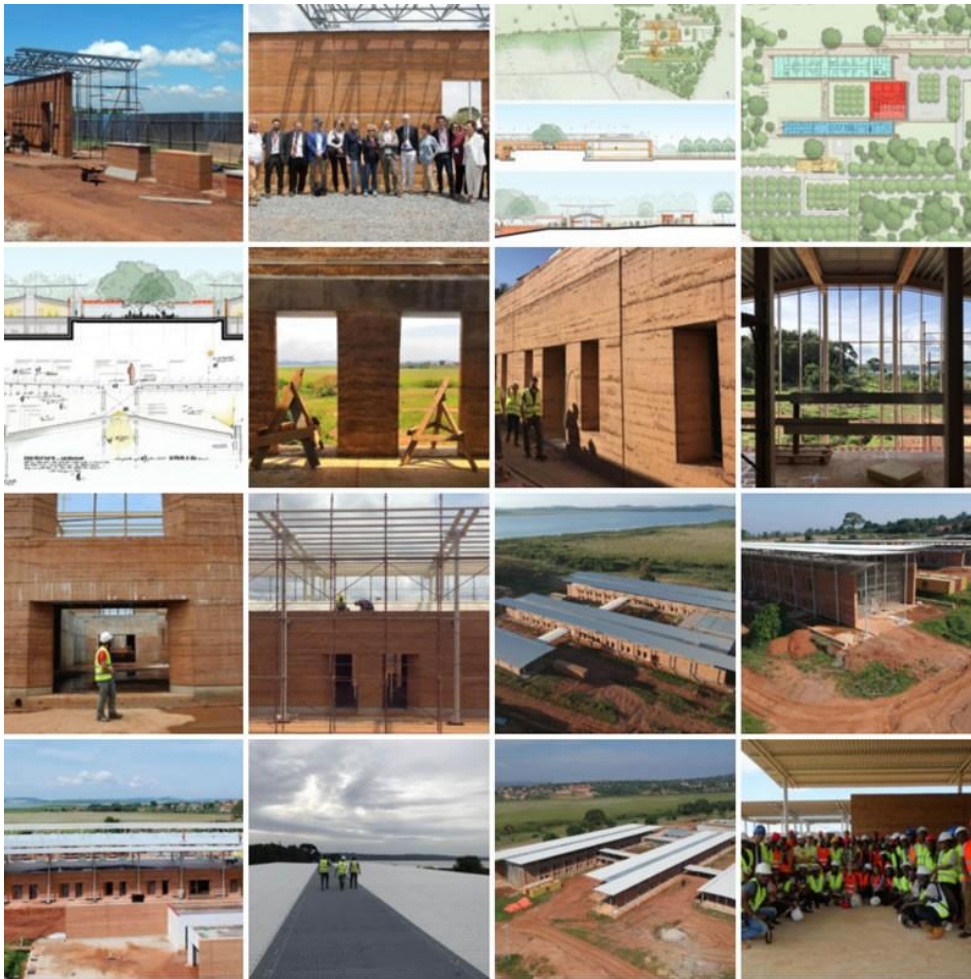
The simple beauty of the hospital also comes from the place and is closely linked to technical experimentation. The hospital is built in **rammed earth**, therefore using the raw earth, beaten inside formworks. A technique with ancient origins, simple and cheap, but associated by many people in Africa to a poor past, something to be forgotten. Restoring dignity to this technique was another important objective.

"The work behind it is interesting; made of experimentation and testing. Various samples and mock-ups were prepared, and it was a good job from the point of view of the scientific method. Engineers and chemists were involved, and in fact the results are interesting because the values in literature of rammed earth are those of a discreet material from the point of view of mechanics, but with the design mix that was applied, well, these values were multiplied by ten, ie we multiplied by ten the value of the mechanical strength of the material. And this counts, because in fact it makes it an interesting material, it is not reinforced concrete, let's be clear, it works like a load-bearing wall: simply by compression, but we believe there will be very minimal elements of weakness of the rammed earth". The architect refers to "durability, water absorption, mechanical strength". The goal is also to make this improved technique repeatable, since the earth is free and "is a material they have under their feet," stresses Grandi.

What changed from the old "recipe"? *"We have applied - grandi responds - the sense of modernity to an ancient material. A percentage of aggregates was simply added according to a certain grain size curve, i.e. sand, gravel, and then fibres to contain the shrinkage effects, a modest quantity of portland cement, and other additives that Mapei already had in production and that derive from its research. On the surface, a treatment with siloxane is also carried out, precisely to reduce the absorption of water while allowing breathability. Then there is the roof, that "flies", and that also protects the walls from water, protects the building from the sun, allows it to breathe and generates energy.*

The buildings are born from the earth and draw energy from the sun. The roof will support **9,800 square metres of photovoltaic panels. 350 trees** will be planted to form the garden in the heart of the complex. This was made possible by "the industriousness of Emergency's friends", says Giorgio Grandi. *"In Uganda - he adds - it is difficult to find fully-grown trees, there is no such culture, there are no nurseries and we made it a nursery at home, with the air-pot technique, so the plants are grown on the ground, in large pots. In our case the pots are made with wire mesh and jute. Within two years, the plants have doubled in size, thanks in part to the formidable climate.*

Once the construction site is finished, the trees will be planted in the garden, which will cover an area of 30 by 30 metres. *"It will be inhabited by Jacarandas and is the centre of the composition because this garden is overlooked by the two main wings, the first containing the diagnostic activities, the outpatients and the wards on the opposite side, and then the operating block that closes this open "C" of the garden,"* says the architect.



Entebbe hospital is part of a program that goes beyond the borders of Uganda

The Entebbe hospital will offer free treatment and be a reference centre for Ugandan patients and children with surgical needs from all over Africa. The hospital is the result of a very ambitious project that reaches beyond the borders of Uganda. It all started with the Emergency Salam Centre of Excellence in Cardiac Surgery in Khartoum, Sudan, designed by TAMassociati and winner of major awards such as the [Curry Stone Design Prize](#) and [Aga Khan Award for Architecture](#). The hospital, designed by the studio headed by **Massimo Lepore, Raul Pantaleo and Simone Sfriso**, was the first completely free cardiac surgery centre in Africa, dedicated to high-level medical and surgical assistance, aimed at children and adults suffering from congenital and acquired heart disease.

On the basis of that experience, the NGO, in 2008, brought together health ministers from nine African countries to discuss how to guarantee African citizens the right to free, high-level medicine. From that meeting the **Manifesto for a medicine based on human rights** was initiated. The manifesto affirms the need to build health systems based on equality, quality and social responsibility. On the basis of these principles, **ANME** (African Network of Medical Excellence) was created in 2010 with the aim of building medical centres of excellence to strengthen the continent's health systems.

The hospital in Uganda follows these principles. Uganda immediately joined the ANME project and provided the land on which to build the hospital, and funding to cover 20 percent of the construction costs.

by Mariagrazia Barletta

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PROJECT DETAILS

Customer: Emergency NGO

PROJECT: Renzo Piano Building Workshop, Studio TAMassociati (Venice)

Design team: G.Grandi (project leader), P.Carrera, A.Peschiera, D.Piano, Z.Sawaya and D. Ardant; F.Cappellini, I.Corsaro, D.Lange, F.Terranova (models)

Consultants Milan Engineering (structures); Prisma Engineering (plants); Franco and Simona Giorgetta (landscape); GAE Engineering (fire-fighting design)

Partners and sponsors

Sponsor: Paola Coin, Prosolidar Foundation, Stavros Niarchos Foundation

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