



# AFRICAN HOUSE DESIGN COMPETITION

## A HOME FOR THE JOREJICK FAMILY

/ARCHITECTURE COMPETITION/

in collaboration with



# INTRODUCTION

Tanzania suffers from a terrible shortage of good quality and affordable housing. So dire is this shortage that the nation currently carries a 3 million housing deficit coupled with a 200.000 unit annual demand. Over seventy percent of its urban residents live in unplanned and unserviced informal settlements. **With that in mind, Archstorming is looking for a housing design to be implemented not only in Tanzania, but also in other African countries where housing is an increasing problem.**

Only 15 percent of household in Tanzania have electricity, with a very large disparity between urban and rural households in Mainland Tanzania (45 percent and 3 percent respectively). Two in three households in Tanzania (67 percent) live in dwelling with earth, sand or dung flooring. Cement flooring only accounts for 30 percent of households. With an ever increasing urban population, 5.7 percent to 22.6 percent over the period 1967-2002, based on 2002 census data, it is inevitable that this shortage, which is compounded by lack of long-term housing finance and a lack of a formal residential housing construction sector, needs to be addressed in a timely manner.

**In order to do so, the current competition will explore efficient and economic ways to build houses in Africa. The Jorejick family, located near Karatu, Tanzania, will be the firsts we will help. With your participation, we will provide them with a design for their new home.**





From left to right: Paulo, María (grandmother), Bura (father), María (mother), Cecilia, John, Nico, Enmaculata, Sanslaus, Prisca, Gertruder, Alberto and Rafael.

# THE JOREJICK FAMILY

Paulo is the oldest of 10 children and is currently 33 years old. His parents, **Maria** and **Bura**, are 54 and 56 years old, and support a family that does not stop growing. They are dedicated to daily tasks, cultivation of fields, care of livestock and maintenance of adobe houses. Their wish is that their children can study at school, since in Tanzania education is not free. All the stress they go through is reflected in chronic diseases such as stomach ulcers that Maria suffers.

Cecilia (31 years old) already has 3 children: **Melania** (9), **Virguita** (6) and **Brian** (2). She is a teacher in a distant town and cannot take care of the 3 kids by herself, so they live in Getamock with their grandparents (Maria and Bura).

John is 30 years old, and he's a professor in Dar es Salaam, the financial capital of Tanzania. Although he lives far away, he often goes to visit the family. He has a daughter named Doreen (1).

Nico (27), the fourth brother, didn't go to school, but he makes a living with multitude of activities in the town. During summer, he also helps in the archaeological excavations nearby. He's currently building a small brick house in the plot to move with **Paulina**, his wife.

Enmaculata is 25 years old and she lives in Arusha with her husband. They have a son, **Briston** (4) that lives with his grandparents. She sells fruits and vegetables in the town.

Sanslaus (22) is the only brother that has completed secondary education. He speaks English fluently and wants to continue studying to fulfill his dreams.

Prisca, 18, is finishing high school. She is still living in Getamock with her family and helps her parents as much as she can, taking care of the whole family. She hopes to continue studying in the near future.

\* Underlined means they are children of María and Bura.

\* **Bold** means they are currently living in the house.

**Alberto and Gertruder** are twins. They are 15 years old and have just started high school. They are very active, happy and responsible children. They help the family with livestock and crops.

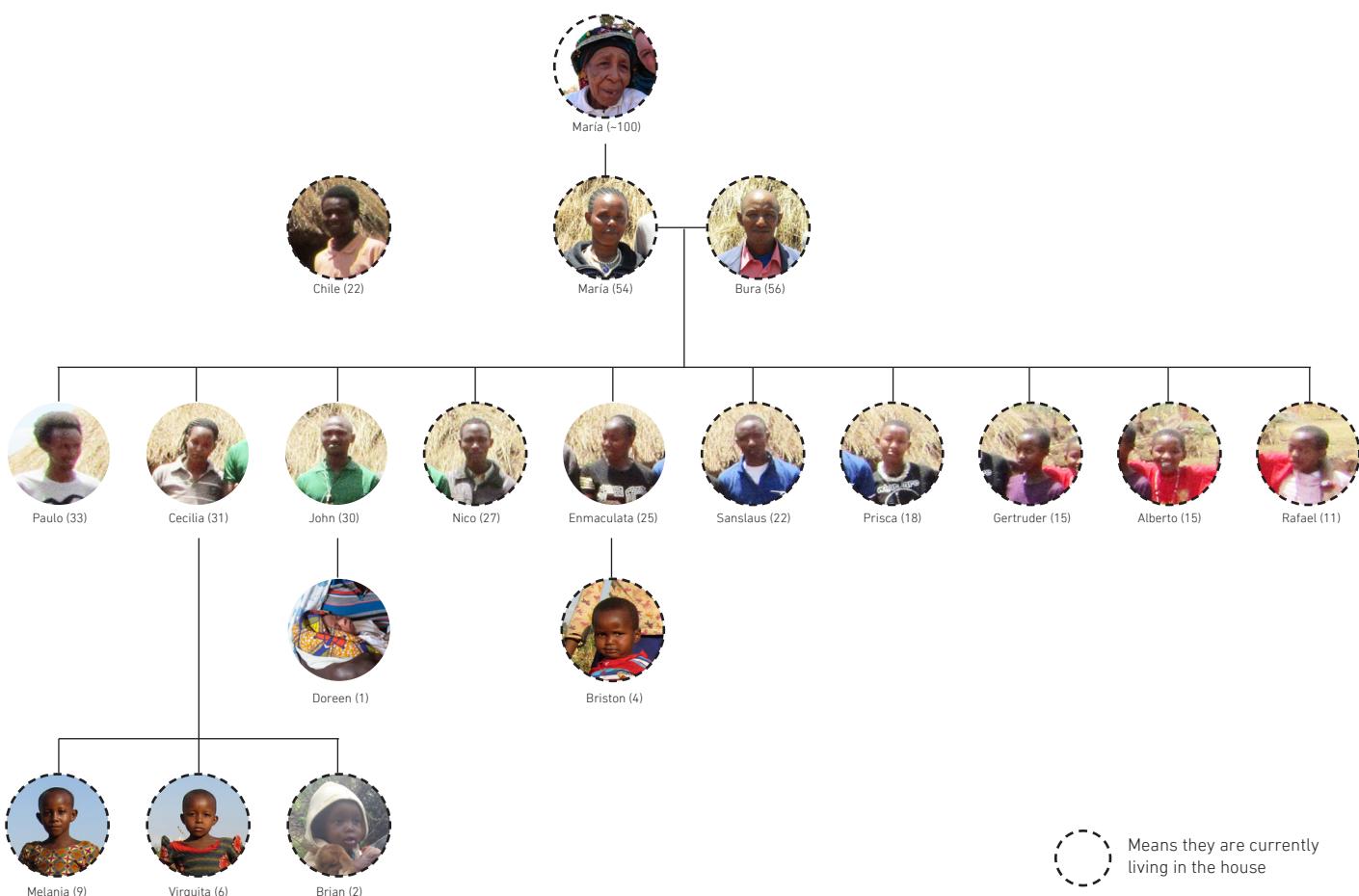
**Rafael** (11) is the youngest brother. He is studying primary school. Despite his young age he is incredibly mature and responsible, taking care of many tasks at home. He is a vegetarian because he does not like the taste of meat.

**María**, the grandmother, is such an important person in this family. Although her exact age is not known, the family estimates that she must be around 100 years old. She was the second wife out of four, from a polygamous marriage. She had to marry twice because her father wanted to receive a bigger dowry. She has had a very tough life, with much suffering and, despite her diabetes, today her tattooed face reflects wisdom and serenity.

**Chile** is also part of the family. He's the mother's nephew. His mother passed away years ago due to breast cancer. Then he had to go live with his uncles. He is 22 years old and has finished high school, but for economic reasons he hasn't been able to continue studying. He is a member of the family and helps economically as much as he can along with Nico.

This is the entire Jorejick family. 15 of them are currently living in the house. We could say so many things about each one of them. They are all incredible people, self-sufficient, and an example of maturity and ability to overcome their problems.

It is our chance to help them building a new home that will bring them stability and comfort. Architecture has the power of changing lives, and we will do that for this family.



# THE INITIATIVE

## Paulo and Sonia

In 2010 Sonia, a 23-year-old from Madrid, traveled to Tanzania, taken there for her archeology studies. It was a month of movie adventures where she met Paulo, a Tanzanian from the tribe of the Iraqw. They immediately fell in love with each other, although at first they could only communicate through signs.

One year later, in 2011, Sonia decided to move to Tanzania. She and Paulo moved to Arusha, a city 4,5h away from Paulo's family house, and started working in a travel agency. However, the plans got complicated again when Sonia fell seriously ill with dysentery.

She had to return to Spain to be treated, but before leaving, Paulo and Sonia visited Paulo's family in Getamock, a town far away from the nearest city, Karatu. There Sonia met the harsh conditions in which his family lived. They lacked potable water and electricity, in addition to having a precarious infrastructure, humid and poorly hygienic environments and a shortage of nutritious food. Diseases, especially in children, were constant.

Due to Sonia's disease, they had to fly back to Spain, **but they promised them that someday they would change their lives. And that day has arrived.**

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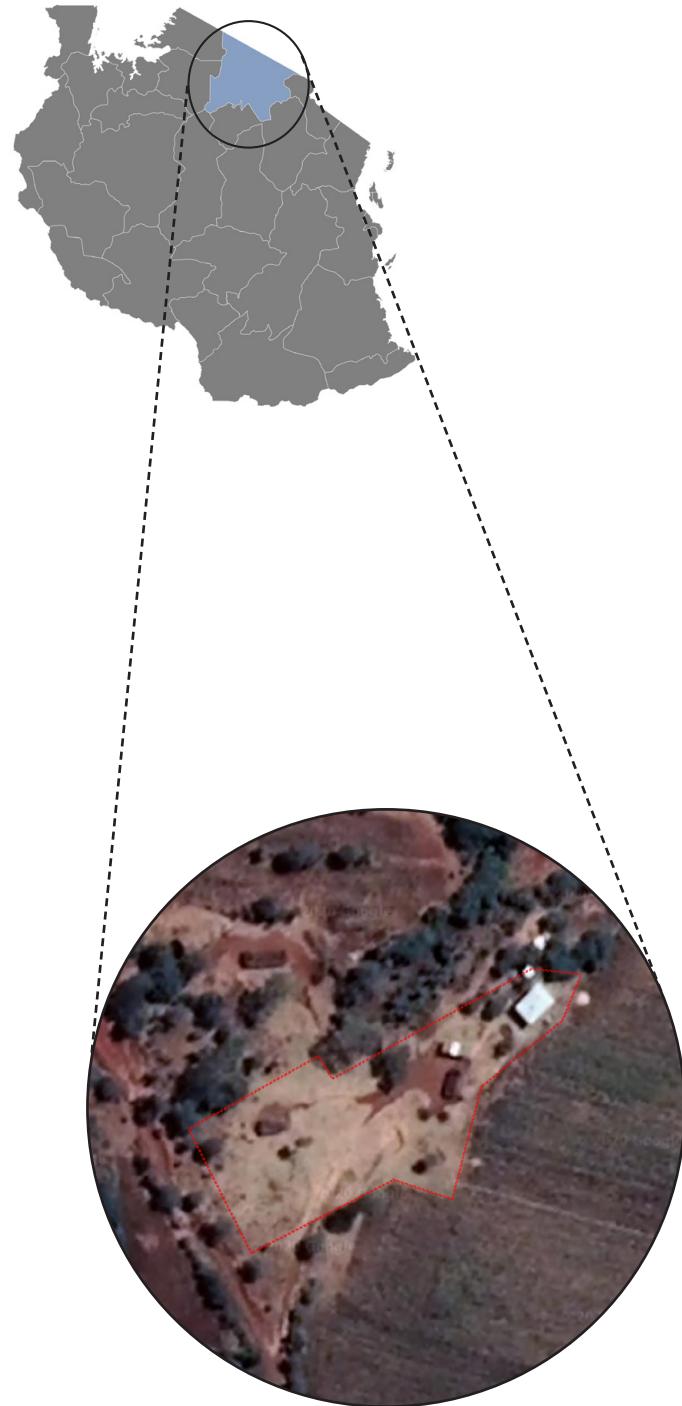
Paulo and Sonia have created **Un Hogar en Tanzania**, a crowdfunding project launched to raise 20.000€ for the house construction. They want to help the Jorejick family, but they also want to create a housing solution that can be an example for more families in these precarious conditions.



The day they left, Sonia promised grandma María that they would do everything in their power to build them a decent house.



# LOCATION



**Archstorming is calling for proposals to design a house for the Jorejick Family.**

The house will be built on the plot that the family owns. It is located in Getamock, in the Karatu District, north of Tanzania. (Coordinates: 3°31'04.4"S 35°42'06.0"E)

The closest city (2h driving) is Karatu, with a population of 26.617.

The house is very close to the Lake Manyara. The region is quite touristy, since we can find relatively close the Serengeti National Park, the Ngorongoro Conservation Area, and the Mount Kilimanjaro National Park.

Approximately 500 people live in Getamock. They all belong to the tribe of the Iraqw. They speak Iraqw and also Swahili.



# THE SITE



The plot extends to approximately **4.600 m<sup>2</sup>**. It has a rhomboidal shape. The longest side measures **120 m** while the shorter **35 m**.

As you can see, the family's plot is wide enough to build a house that suits their needs. Do not forget **cattle need space to transit**, so you should leave a lot of free space for it.

The plot currently has the following constructions:

- **Huts**: there are three of them. One functions as covered kitchen and storage (5m x 2,5m). And two huts are used as bedrooms (7m x 3m). These buildings have a wood structure covered with mud and straw. They are very exposed during bad weather conditions, the family has to rebuild them every now and then.

- **Nico's brick house**: it has a rectangular shape (9m x 7m). It is half finished. Nico is expected to move there with his wife once the jobs are done. It is made of mud-bricks.

- **Shower and latrine module**: it is close to Nico's house and also made of bricks. The latrine is just a hole in the ground approximately 10 m deep. Once it is full, they plan to seal it and move the latrine to another place. To shower they use a bucket of water.

- **Outside kitchen**: they use an open wood fire to cook, that's why they have to do it outside. They use a space covered by banana trees next to the cattle.

The cattle have a space closed by a wooden fence. They graze in a reserved space in the west of the plot.

The property has its **main entrance in the south**. Other neighbors have to go inside the plot to access their homes.



# CURRENT STATE



Hut: this is where most of the family sleep, sharing the space with some small animals such as chickens or ducks.



Hut: this one is being rebuilt. Dad is currently sleeping here.



Hut: used as interior kitchen and storage.



Nico's brick house: still under construction.



# CURRENT STATE



Shower and latrine module



Open kitchen



Cattle



Main entrance

# CLIMATE AND SOIL

The climate in the Karatu region is strongly marked by two seasons. The so-called **rainy season** and the **dry season**. Rains begin approximately in November and intensify, reaching their maximum level from February to April. The dry season runs from May to October, although sporadic days of rains can occur, especially from September, which are frequent at night.

Despite having a high humidity index, **temperatures remain stable during the year** at about 22-25°C. During the dry season (summer), the temperature rises during the day, but **rarely more than 30°C**. However, at night the temperature drops a lot, **reaching a minimum of 10°** in the rainy season.

Karatu has some **very humid months, with other comfortably humid months**. The least humid month is January (57.6% relative humidity), and the most humid month is May (78.5%).

**Wind in Karatu is usually moderate.** The windiest month is October, followed by September and August. October's average wind speed of around 11.6 knots (13.4 MPH or 21.5 KPH) is considered "a moderate breeze." Maximum sustained winds (the highest speed for the day lasting more than a few moments) are at their highest in mid October where average top sustained speeds reach 18.8 knots, which is considered a fresh breeze.

The plot consists mainly of **Ferruginous Tropical soils** developed in moderately fine to fine textured, non-calcareous deposits derived from weathering of volcanic lavas and volcanic tuffs. **The material is dark reddish brown to red in color and ranges from clay loam to clay in texture. The plot is stone free.**

Surface drainage is good. The very rapid drainage on some areas has resulted in considerable erosion. This has caused a **slight slope at some points**. You can consider the plot to be completely flat, or keep the current slope. A topographic plan will be sent after registraton.



# THE CHALLENGE: PROGRAM

In this contest we will **build a house for the Jorejick family**. We will focus on providing them with adequate spaces that they can keep clean, tidy and organized, in order to avoid diseases and bring structure into their lives.

The house building can be composed of **one or several modules**, depending on the structuring of the project.

The project program will be as follows:

- **Bedrooms:** The house should have 6 bedrooms, where bunk beds, double beds or single beds will be distributed so they can sleep comfortably. It is not necessary to have one bed per person (that is, 15), since they usually sleep together, although we do want to improve their quality of life in this regard. The bedrooms should have shelves and closets, and since many of the family members are still studying, some should also have desks. It would be convenient if each room had a window in order to ventilate properly. Since the temperature is constant during the year, no heating system is required.

- **Living Room:** The living room should be spacious and although they are used to being outside, it would be ideal to gather them especially in the rainy season or in celebrations. Although they have never had anything similar, we would like them to enjoy furniture such as sofas and armchairs, some sideboard furniture and a large table with chairs or bench run. They imagine it as a luminous space.

- **Outdoor kitchen:** Outdoor cooking is widespread in Africa. However, in the rainy season they must cook indoors. The house should have both of them. They can be close to each other in order to facilitate the storage of kitchen tools. The outdoor kitchen should be located in a protected space. The one they are currently using is surrounded by banana trees, which makes it very private. Although it must be open (no walls), you can cover it or leave it roofless.

- **Indoor kitchen:** although they are not very used to it, they have access to a gas cooker. The interior kitchen should have a space for gas cooking, and another for a wood cooking stove. It is very important that this space is properly ventilated, so that the smoke can evacuate correctly. It should have enough storage space to keep all kitchen tools, and also a food storage space (all this can be in an adjoining storage room). The kitchen should have an exterior door in order to access from the outside.



Outdoor kitchen

# THE CHALLENGE: PROGRAM

- **Showers:** for hygienic reasons, showers and latrines shouldn't be together. Also, due to the complexity of installing a drainage system, they should be separated from the house, or at least not as an interior space. They must include a dressing room where they can take off their clothes privately, and two separate showers. They are currently showering with water buckets, but any other system is accepted, as long as you take into consideration that there's no water supply in the zone.

- **Latrines:** it is important to build them a reasonable distance from the house, balancing issues of easy access versus that of smell. Your design should include two latrines. As we've said before, they are currently using simple pit latrines, but any other system to improve that is welcome in the proposals. You can include toilet seats to facilitate the process to kids and elders.

- **Porch for corral and crop storage:** chickens, ducks and other small animals are currently sleeping inside the huts with the family. They should have a roofed space, fenced with a wire mesh. It should be adjacent to the house (it can be thought as a porch). Also, they need a similar space (roofed but not fenced) to store the crop (corn, beans, etc.).

- **Outdoor space:** the house must include exterior spaces where the family can gather, since they spend most of the day outside. They normally hang out and rest outside the huts, so these spaces could include tables with benches or some simple elements (preferably wooden) where children can play, enjoy, and have fun. You can also create porches at some points so they can have a place to shelter when it rains.

- **Cattle area:** they are very happy with the location they are using now, because the animals are guarded, but they don't interrupt the pathways inside the plot. It should be rehabilitated with a wooden fence, and extended so that the animals have more space.



Grandma Maria outside the indoor kitchen

# MATERIALS AND BUILDING TECHNIQUES

**In this competition the winning project is going to be built,** the chosen proposal will be used as the basis of the final project. That is why materials and building techniques will be crucial.

**The most used building material in the area is adobe (mud).** For the walls, they usually build a wooden structure that afterwards is covered with mud mixed with straw. The rains end up eroding the walls and they are constantly rebuilding them.

**Recently they have been making mud bricks and cooking them so they are more resistant.** The size of these bricks vary since they are manually made.

Other materials can also be found, such as **wood, stones or steel.** Stones are mainly used for foundations and as a base for the building. Wood is found in the roof structure, while steel is used for the roof panels.

**Other materials are accepted as long as you make sure they are available in the area and not too expensive.**

**Electricity supply has recently arrived to Getamock.** Unfortunately, it does not reach the family house. They are talking to the electric company to see if they can get it. Despite that, your design should consider they will be having electricity soon.

**Water supply doesn't exist in the zone.** They normally take the water from a well in the area, although the well's water pump is currently not working and they have to fetch water from a schoophole. For this reason it would be really interesting to consider a **rainwater collection system.** This water should be directed to a water tank where they could manually pump it.

You can demolish the huts they are currently living in. But at least one should stay during the whole construction process in order for them to have a place to sleep.

There are a **couple of trees on the plot that should be kept** since they are the only natural shade the family has. One is located near the brick house, and another is in line with it, towards the access area to the plot. They are medium sized acacias.

The plot works as **access to other neighbor houses**, please take that into consideration in your design.

**The budget for the house is 20.000€ (50 milion Tanzanian Shilling).** A list of price references, along with a site plan, will be sent after registration.



Schoophole where they fetch water

# COMPETITION DETAILS

## ELEGIBILITY

Any architecture student or professional architect can participate in AFRICAN HOUSE DESIGN COMPETITION, regardless of their nationality. Likewise, people from other disciplines can also participate, such as engineers, philosophers, sociologists, photographers, etc. It is not necessary to have an architect on the team, although it is recommended.

Teams may be formed by a maximum of four (4) members and a minimum of one (1).

All team members must be 18 years of age or older.

The registration fee must be paid per team, regardless of the number of members (1-4 people).

In the event that a team or participant wants to participate with more than one proposal, it will be necessary to register twice (or as many times as proposals will be submitted), paying the full price corresponding to each registration.

Under no circumstances may jurors, the organization or persons directly related to the jury participate in this competition.

## AWARDS

Prizes totaling 10.000€ + CONSTRUCTION, broken down as follows:

1st PRIZE

**6.000 €**

+

**PROJECT CONSTRUCTION**

2nd PRIZE

**2.000 €**

3rd PRIZE

**1.000 €**

SPECIAL HONORABLE MENTION

**500 €**

SPECIAL HONORABLE MENTION

**500 €**

+10 HONORABLE MENTIONS

In addition, the winning projects or finalists will be published in magazines, blogs or architecture web pages, social networks or the Archstorming website.

\*Depending on the country of residence of the winners, the prize may be subject to the withholding or payment of taxes foreseen in the law of that country.

# COMPETITION DETAILS

## CALENDAR

FEBRUARY 26, 2020	EARLY REGISTRATION BEGINS
MARCH 25, 2020	EARLY REGISTRATION CLOSES
MARCH 26, 2020	REGULAR REGISTRATION BEGINS
APRIL 22, 2020	REGULAR REGISTRATION CLOSES
APRIL 23, 2020	ADVANCED REGISTRATON BEGINS
MAY 20, 2020	ADVANCED REGISTRATON CLOSES
MAY 21, 2020	LATE REGISTRATON BEGINS
<b>JUNE 17, 2020</b>	<b>SUBMISSION DEADLINE</b>
JUNE 18 - JULY 7, 2020	JURY DECISION
JULY 8, 2020	WINNERS ANNOUNCED

\*No submissions will be accepted after the general deadline indicated above: 23:59:59 Los Angeles time (UCT / GMT-7) or PDT.

## PAYMENT

Registration fees will depend on the registration date, and will evolve as follows:

EARLY REGISTRATION: **60€ + VAT**  
REGULAR REGISTRATION: **80€ + VAT**  
ADVANCED REGISTRATION: **100€ + VAT**  
LATE REGISTRATION: **120€ + VAT**

VAT: 21%

Registration process must be completed on the official Archstorming website. In order for the registration to be successful, the team must pay the fee corresponding to the registration date. Once the registration and payment process have been completed, there will be no refunds.

## PAYMENT METHODS

Visa, Mastercard, Discover and American Express credit or debit cards may be used. The Archstorming team will not have access to credit card details. Please provide the information on the card as it appears on it.

Likewise, payments are accepted through Paypal.

## REGISTRATION

Immediately after registration and payment, the Archstorming Team will send a confirmation email to the email entered in the payment form. It will include the work material (pictures, site plans, etc.), as well as the registration number. This number must be placed in a visible spot on the team's competition board, preferably the lower right corner.

At the time of submission of the proposals, the registration number will be required to identify the team.

<http://www.archstorming.com/register.html>

# COMPETITION DETAILS

## SUBMISSION MATERIALS

Participants must submit **two (2) A1 format boards** (594x841 mm or 23.4x33.1 inches) oriented either landscape or portrait with the registration number in the lower right corner.

The content of the boards is open, as long as the idea that the participants want to communicate is clearly expressed. However, it is **important to detail the proposal with the materials and constructive systems thought**. The boards must be delivered in JPEG or JPG format and the file name must be the registration number provided by the Archstorming Team (eg 432465423-1.jpg and 432465423-2.jpg for the two boards)

In addition, **one (1) description of the project no longer than 400 words** must be submitted. The description must be submitted in PDF format and the file name must be the registration number provided by the Archstorming Team (eg 432465423.pdf)

All the materials must be submitted in the Submit section on the Archstorming's website.

<http://www.archstorming.com/submit.html>

## EVALUATION CRITERIA

The jury will evaluate the projects based on the proposed objectives, the main being the creation of a house for the Jorejick family in Tanzania, with the indications provided in this briefing.

The jury is free to add other criteria that they consider important for the creation of the house.

A total of 50 proposals will be selected for the final round. Among the 50 finalists, the jury will choose the winner, the second and third place, the 2 special honorable mentions, and the 10 honorable mentions.

## FAQ

You can check the most common questions in the corresponding section on the Archstorming website:

<http://www.archstorming.com/faq.html>

Also, during the competition, all questions sent by email will be answered individually and uploaded to the section of the website mentioned above.



# COMPETITION DETAILS

## INTELLECTUAL PROPERTY AND COPYRIGHT

All the projects that win a monetary prize will become property of Archstorming, and therefore give Archstorming all rights to the materials from that moment on. Archstorming reserves the rights to use any of the participating projects for exhibitions and publications, digital or paper catalogues and dossiers.

Archstorming will publish all materials given appropriate attributes to the authors.

Archstorming reserves the right to modify the proposals and text in order to better adapt them to any publication format, without changing the essence of the proposal itself.

The participant is responsible for using copyright-free images. Archstorming is not responsible for the use of protected images by the participants.

## NOTES

Archstorming reserves the right to make any changes in the rules of the competition (dates, requirements, etc.). It is the obligation of the participants to check on a regular basis the website of Archstorming to verify if the Terms and Conditions or the competition information have been modified.

Un Hogar en Tanzania is in charge of the project construction. Archstorming is collaborating with the project but not responsible of the house construction. If for any reason they finally can not build it, Archstorming will not be responsible of the fact.

Archstorming is not responsible for any research done by participants in the area.

The breach of the norms and terms defined in this briefing or in the Terms and Conditions of the website of Archstorming will result in the immediate disqualification of the team without any refund of the payments made.

Archstorming reserves the right to cancel this contest in case it does not reach a minimum number of participants, defined in the Terms and Conditions. In that case, Archstorming will return the full amount of registration fees to the participants enrolled at the time of cancellation.

<http://www.archstorming.com/terms.html>