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IFA HOUSE

by Eduardo Soto
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2ND PLACE WINNER

Inspired by the culture of the Yoruba people



INSPIRATION

The Ifa House aims to capture the essence of the traditional Yoruba compound palace. Its inspiration comes from the synthesis of the two traditional dwelling types most associated with the Yoruba people: The Orowa House and the Courtyard House.

The traditional Yoruba dwelling types, the Orowa House and the Courtyard House, originate around the idea of a communal space enclosed by small rooms.

The concept of the Ifa House incorporates elements of both the Orowa House as well as the Courtyard House. The Ifa House features an interior courtyard that opens to the sky for ventilation, natural light, and rainwater collection. The rooms that surround the courtyard feature screen walls that allow ventilation and views to the exterior gardens. The openness of the plan along with a high roof structure allow cross ventilation and natural lighting to permeate the entire structure.

TRADITIONAL ARCHITECTURAL ELEMENTS

The most prominent architectural element incorporated into the design is the roof structure used to collect rainwater and solar energy. Its inspiration comes from the traditional impluvium featured in many Yoruba houses. This roof helps to create a sustainable structure and naturally helps hot air escape the structure.

The house features other Yoruba architectural elements like the carved veranda post, carved wood doors, fluted walls, and corrugated metal roofing. To complement the design, the house also includes multiple gardens and a cistern to collect water.

TRADITIONAL AESTHETIC

The Yoruba culture is well known for their use of carved wood pieces for a variety of architectural elements. The use of Yoruba wood carving in the Ifa House is notable in the following areas:

- Highly decorated exterior doors
- Exterior carved panels
- The carved wood caryatides
- Fluted walls
- Lime plaster
- Bamboo ceilings
- Corrugated metal roofing

The conceptual idea behind the inverted roof is best illustrated by a traditional Yoruba divination cup known as Agere Ifa. This cup is often made out of carved wood and it represents human figures holding a bowl. In the same fashion, the Ifa house has an inverted roof that is used to collect rain water and solar energy while being held by carved human figures.

BUILDING MATERIALS

The materials chosen for this prototype have been carefully chosen based not only on their aesthetic value but on their proven performance and availability.

- Exterior and interior walls: Compressed Stabilized Earth Blocks
- Roof and ceiling: bamboo
- Screen walls, operable louvers: Palm Wood Timber
- Columns, beams and foundations: Concrete with additives
- Floor: Ceramic tiles
- Kitchen: Bamboo cabinets, terrazzo counter tops

HEATING, COOLING, VENTILATION AND AIRFLOW

The Ifa House is designed specifically to maximize cross ventilation into all the interior spaces. An air gap inside of the hollow roof structure acts as insulation. Operable louvers control the amount and direction of the air current that enters the house. Finally, interior screen walls allow different degrees of permeability to find the proper balance between privacy and ventilation.

THE AFRICAN KITCHEN

Traditionally, the African kitchen was a space located separate from the main structure based on practical considerations such as fire hazards and smoke. Using modern and efficient kitchen accessories makes it possible to feature the kitchen in a centralized location of the Ifa house. This makes the kitchen area an integral part of the social aspect of the modern African architectural space.

WHY A PROSPECTIVE HOMEOWNER WOULD CHOOSE THIS DESIGN

A homeowner would prefer to buy a home that features traditional techniques and concepts and provides a cultural connection. In addition, this house makes great use of space and energy and offers some independence from public infrastructure.

FEATURES THAT COULD BE BUILDING CODE

- Proper reinforcement for brickwork and structural connections for bamboo.
- Compressed Stabilized Earth Blocks are made from a combination of local clay and a small percentage of Portland cement. These blocks are compressed into various molds with manual or powered machines, offering endless possibilities in terms of design. The proper reinforcement is key to maintain structural integrity and the safety of the users.
- Structural bamboo's strength relies not only on the unique characteristics of this plant, but also on the proper structural connections incorporated into the design.

