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Miracle David-Adjah *Nigeria*

Bismark Achodo

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JALI

by Miracle David-Adjah & Bismark Achodo (BMA Design) Architects | Nigeria

HONORABLE MENTION

Inspired by the music of Africa





The name, from a language of a group of West African countries; (Sierra-Leone, Mali, Guinea, Cote d'Ivoire) given to an oral historian-cum-minstrel-storyteller.

DESIGN CONCEPT

The Jali is a home not inspired by one African culture, but rather by a common lifestyle feature found in all African cultures. The concept of the design is African beats and rhythms. Music and dance is part of the lifestyle of all African cultures. Traditional music in much of Africa is passed down orally and is not written. In Sub-Saharan African music traditions, it also frequently relies heavily on percussion instruments of every variety, including xylophones popularly known in Africa as "Balofon", the drums, and tone-producing instruments such as the "mbira" or thumb piano. The Balofan, which forms the main facade for the building is actually a sacred instrument in some parts of Africa, such as the Susu people, a subgroup of the Mande ethnic group in Guinea..

TRADITIONAL ELEMENTS USE IN THE JALI DESIGN

The design infuses several elements from the traditional architecture of many African ethnic groups, from spatial arrangement to construction materials and aesthetic features. Some of them include the conspicuous front entrance and another separate back entrance in the spatial arrangement, like the homes of the Yoruba people. The art of the Zimbabwean sitting stool forms the elaborate entrance of the house; it is common for the Yoruba houses to have elaborate entrances. The Hausa people used Adobe (locally termed tubali) in the construction of their traditional houses and plaster with earth. Walls constructed with mud/earth formed hollow blocks to keep the heat out. The Igbo traditional architecture has several units that surround the obi, (the compound head's hut). This is also found in some other African cultures like South Africa, Mali, and Burkina Faso where the men traditionally had more than one wife. This translated to the bringing together of spaces (different units) in the house by the courtyard. Irrespective of culture and tradition, the lifestyle of many Africans encourages togetherness which too encourages the courtyard.

BUILDING MATERIALS USED IN THE JALI

The Jali celebrates the local materials readily available in Africa. The materials used are however a blend of the modern and traditional to achieve maximum sustainability. The building materials can be substituted as suited to the region it is to be built in.

- The roof uses brown Aluminum long span corrugated roofing sheets.
- The walls are constructed with compacted or rammed mud (earth) blocks. The earth and mud must be compacted to increase the tightness between the molecules of sand, thereby preventing water from seeping in and ruining the walls. The walls are plastered as normal with cement mortar to keep the mud as air tight as possible.
- The entrance canopy is made of African Cherry (Prunus Africana) wood also known as Red stinkwood. The tree of the African cherry is an evergreen tree native to the mountain regions of sub-Saharan Africa and the islands of Madagascar, Sao Tome, Fernando Po, and Grande Comore. Because it moisture tolerant it will hardly be affected by rain. The wood is tough, heavy, straight-grained, and pink, with a pungent bitter-almond smell when first cut, turning mahogany and odorless later. It is very strong and useful even in construction of bridges and as such is perfectly suitable for the entrance

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canopy. Its pink color compliments the wall motif. The entrance canopy uses cane (raffia) as the roof covering. This draws in inspiration from the elephant grass used in the north and the dried palm fronts used in the south as roof covering material. It can be substituted with either as is applicable. The cane (rafia) is rubbed with tar to keep the moisture out.

- Bamboo is used in the construction of the walls of the courtyard. It is also
 used as a sun shade in the courtyard. Bamboo is a strong grass species that
 grows fast and is easily replenished. It is dried, treated (seasoned) and
 polished to give it a modern feel.
- The windows, as with modern buildings, use glass sliding windows.

TACKLING THE HEAT, COOLING, VENTILATION AND AIRFLOW PROBLEM

The Jali responds to the thermal conditions of Africa by using the mud blocks which are natural heat insulators. Within the home, all frequently used spaces are well ventilated.

When cooking African-style dishes, there is always a large amount of smoke and heat and therefore, traditional African homes had kitchens located outside. In many contemporary houses, kitchens are inside, making it uncomfortable to cook African style. However, the Jali provides a well-ventilated kitchen with a terrace for outdoor cooking. This allows for the African kitchen in a contemporary house. There is also direct access from the kitchen to the courtyard. This will allow for ease of functions when the family gathers in the courtyard on a hot afternoon or cool evening.

WHY AN AFRICAN HOMEOWNER WILL WANT THE JALI

Most cultures are noticed or known by the kind of structures they live in. In Africa for instance, many fathers would say, "a structure in our days would tell you who owned the house. Even when the form is the same, a hunter would easily be noticed by the heads of as many animals he had killed on display in his house. A warrior: by the swords, cutlasses, bows and arrows and other weapons of war. It goes on and on for all African lifestyle types." The Jali unifies African cultures with its design elements and aesthetic features because it celebrates and tells the story of the musical culture of Africa. It is a culture that most Africans can be proud of. When African homeowners understand the concept of the Jali, they will gladly use their houses to explain to other ethnic groups their cultural music story. In this way, African homeowners will pass on a part of their cultural heritage to others.

Apart from passing on a cultural legacy, the floor plan is simple and can be easily constructed. The building materials are locally available, hence affordable. The design celebrates the African lifestyle and merges it with the contemporary architecture of today. And in all, it is aesthetically appealing.

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