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# SHEBAXUMITE

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**HONORABLE MENTION**  
Inspired by the Axumite people of Ethiopia



## **INTRODUCTION**

The Kingdom of Axum, also known as the Axumite Empire, was a trading nation in the area of northern Ethiopia and Eritrea, which existed from approximately AD 100 – 940. It grew from the port-Axumite Iron age period c. 4th century BC to achieve prominence in the 1st century AD, and was a major player in the commercial route between the Roman Empire and Ancient India. The Axumite rulers facilitated trade minting their own Axumite currency and the state established its hegemony over the declining Kingdom of Kush. It also regularly entered the politics of the kingdoms on the Arabian peninsula, eventually by extending its rule over the region with the conquest of the Himyarite kingdom.

Most Axumite structures such as palaces, villas, commoner's houses and other churches and monasteries were built using alternating layers of stone and wood. The protruding wooden support beams in these structures have been named "monkey heads" and are a staple of Axumite architecture and a mark of Axumite influence in later structures built throughout Ethiopia including a symbolic design on the rock hewn church of Laliela. Contemporary houses were one-room stone structures, two-story square houses, or roundhouses of sandstone with basalt foundations. Villas were generally two to four stories tall and built on sprawling rectangular plans. A good example of still standing Axumite architecture is the monastery of Debre Damo from the 6th century.

## **INCORPORATED AFRICAN DESIGN CONCEPTS**

Among the various possibilities of African designs and design concepts, there are few that stand out of the crowd. One can observe the repetition of design concepts throughout all African designs. For example, the use of open spaces in the middle of the house, which is used as an extension for the functions surrounding it, and the use of elevated spaces (+ 2.50m) for sleeping purposes can be widely observed throughout the designs in Ethiopia.

A particular architectural design element used in the Axumite architecture that has been incorporated in the CPDI design in more or less abstract ways is the monkey head design. The extrusions of the wood from the wall are depicted in the design in an abstract interpretation which uses other cultural patterns and motifs which extrude from the wall.

## **TRADITIONAL AESTHETICS**

The rock hewn churches of Laliela have very interesting characters of their own in addition to the impressions of Axumite architecture. Among those characters, the color of the rocks from which the churches were carved out from have a lasting and impressionistic effect. Another character used in the design which is found in both Axumite architecture and the rock hewn churches of Laliela is the 'rule of equal-equal'. This rule is the reason for all the proportions in the Axumite architecture. This rule implies the subdivision of wholes into equal parts and it can also be applied for repeated divisions 'middle-middle-middle' which generates the number series, 1 – 2 – 4 – 8 – 16 – 32 and so on.

The masonry construction method of the Axumite architecture is also used in the design in order to enrich the material flexibility of the design. By using a combination of rammed earth and masonry construction, which are the two major construction materials in Ethiopia and further more Africa, it is possible to achieve the traditional aesthetics and ethnic reference used in the inspiration of the design.

The traditional clothing of the Axum region locally known as 'yehager libs' has different and distinctive patterns. These patterns are used in some contemporary designs as a source of inspiration and aesthetics. The infinite variety of patterns and geometric arrangements give way to some distinctive architectural characters for Ethiopian design.

**DESIGN MATERIALS AND CHARACTERISTICS**

Courtyard space is intended to be the extension of the surrounding functions especially the kitchen. The concept of 'African kitchen' revolves around the use of the exterior spaces in order to perform tasks that can't be undertaken in the interior space. The courtyard space provided in the design, which has direct access to the kitchen and all the major functions, becomes an extension of the interior space for tasks that might need additional spaces. This concept is rather familiar to most designs in African which consider the exterior space as an extension of the kitchen since most kitchen related activities are done outside rather than inside.

Thermal control would be via masonry fencing and stabilized rammed earth walls. Both materials used in the design have high thermal mass that allows it to absorb heat during the day and release it at night. This moderates daily temperature variations and reduces the need for air conditioning and heating.

The foundation is constructed from stone strip foundation. This method was used in the original Axumite design as well. The roof is constructed out of timber beams and compressed earth. This construction allows for water proofed green.



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