

Inside Outside

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WINNERS
Eugene Pandala
and Yatin Pandya



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DESIGNER OF THE YEAR
2007

FOR ECO FRIENDLY DESIGN

back to the basics





Nestling in the mountains, Marayoor is known for its rich cultural heritage and biodiversity. With its unique dolmens, caves, rock edicts and engravings, its history harks back to the Stone Age civilization, as early as 10,000 BC. It is also famous as a repository of medicinal plants, and has more than 1,000 species of flowering plants. Chinnar, the wildlife sanctuary in Marayoor, has the largest recorded number of reptilian fauna in Kerala, including the mugger crocodile, as well as 225 species of birds, the rare white bison, elephant, tiger, leopard and deer.

The climate is characterized by mild wet winters and hot dry summers. The architect had visited Marayoor many times earlier, and was initially reluctant to introduce any man-made interventions in this eco hot-spot. However, meetings and chats with the young artist clients ironed out many of Eugene's apprehensions, as he realized that they were not just artists but nature-lovers, vegetarians and naturopaths, and all they wanted was just a minimal structure in an old sugarcane field.

The seven-acre property was amazing – abutting a river and a perennial stream, it had huge boulders and beautiful trees and was home to birds and butterflies. Eugene started with meticulously surveying, photographing and documenting the site to understand every tree, rock and natural watercourse.

His concept for the building was to make a minimal, basic yet sensitive and artistic structure that responded to its surroundings, using local materials and



Eugene decided to build a basic minimalist structure that would blend into the landscape and the huge boulders that were left undisturbed. The door made with cut pieces of rough timber complements the texture and colour of the mud and stone walls. The windows were carefully positioned to let in natural light.



technology, whose form would be in harmony with the surroundings, and one which would ensure cultural continuity.

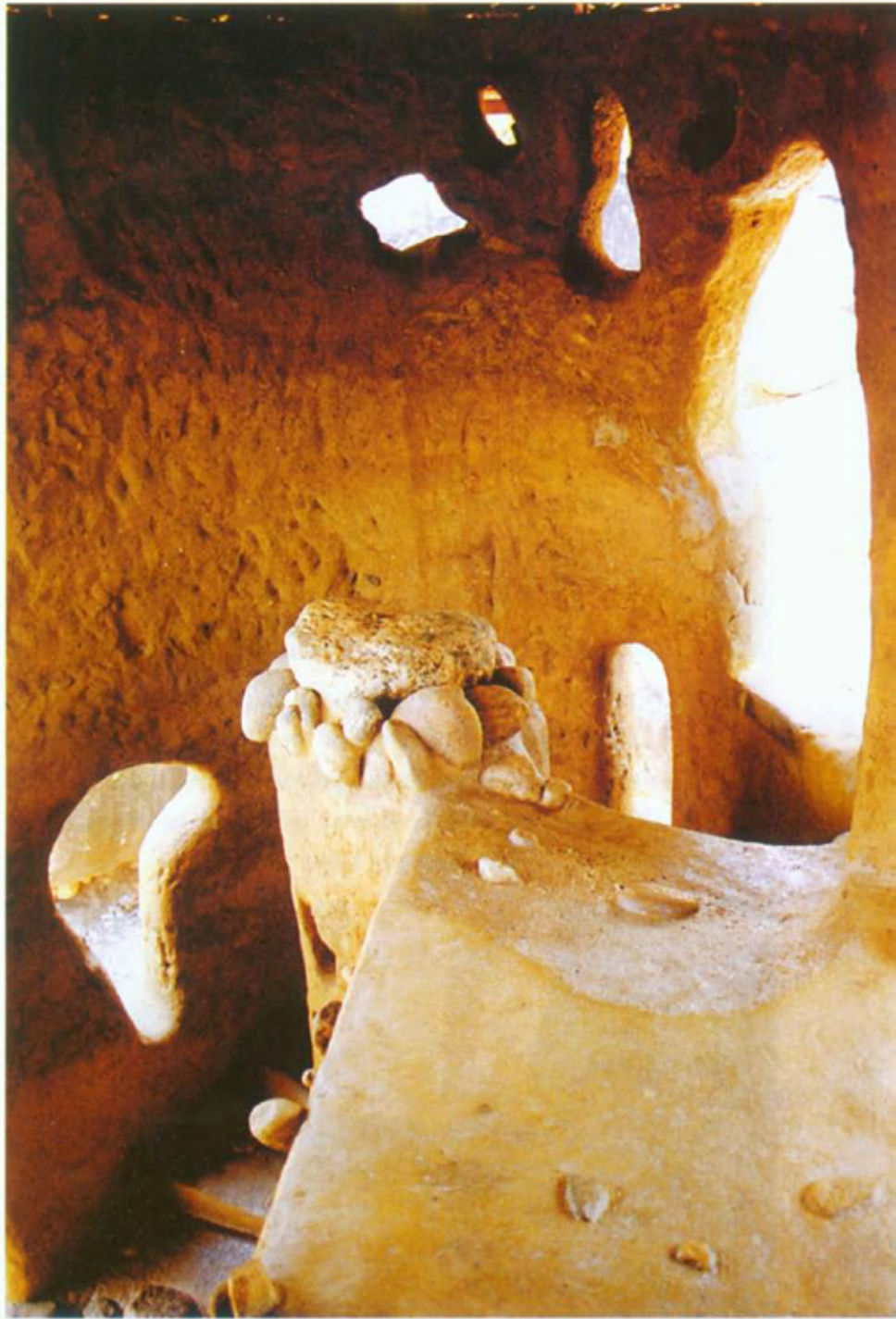
A verandah, which allows one to enjoy the beauty of the surroundings, almost wraps around the structure and forms the main activity area. The ground floor comprises one bedroom and a living space, with a semi-open bathroom, and a staircase that leads to the living space upstairs.

The form evolved naturally in response to the rocks and the surrounding mountains. The array of huge boulders was left undisturbed and the house seems to spring from and is a part of the landscape – even the stairway leading to the upper living area is dealt with as a sculpture, organically emerging out of the ground. The doors are designed with cut pieces of rough timber to match the texture and colour of the walls. The windows of the living area and bedrooms are in unframed plain glass, that allow in the fantastic views of the outside, while the reflections on the glass give an illusion of an animated painting that keeps changing with the changing seasons.

The bathroom was designed in the same vein, and has a non-slip floor made from the natural boulders collected from the site. Eugene has thought of every detail – even the WC is designed to cater to both western and Indian needs. A very basic tap is connected to the stream through a pipe, which gives a continuous flow of fresh water, without consuming any energy.

MATERIALS

The structure was built with the mud and stones excavated from



Sculpturesque forms. All the spaces, including the stairway seem to organically emerge from the ground. A verandah, which wraps around the structure, has a floor of a mixture of lime, mud and jaggery.

the site for constructing the rain-water harvesting storage tank. Adobe walls are appropriate for this climate with its swings of temperature from day to night, as they

absorb solar heat during the day, and radiate it back at night.

'No other building material can equal mud – it is economical, adaptable, easy to maintain,

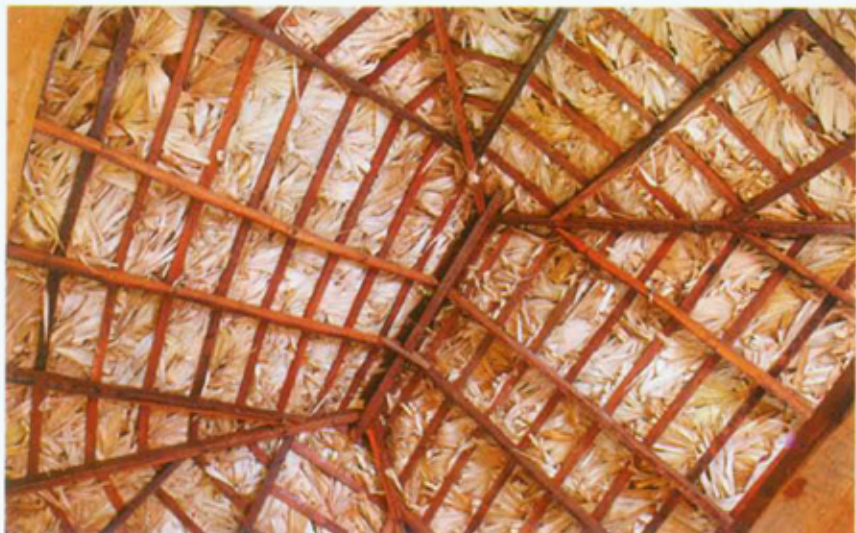
energy efficient, a good insulator against both heat and cold, and allows community involvement with local labour. There is no smell of synthetics, no sound of mechanical systems and no rattling when the wind roars. It is also the basic building block that causes the least impact on the environment, as it can be recycled. The mining of river sand and quarrying of stones can be reduced considerably if we can successfully substitute these materials with mud,' says Eugene.

Rustic hand-made clay tiles, made of local clay and fired on site by traditional craftsmen, form the interior floors, while the floor of the verandah, echoing the colours of the landscape, is in a mixture of lime, mud and the famous Maryoor jaggery!

The roof, made of locally available timber and thatched with palm leaf, is skilfully configured to allow views of the surrounding hills and let in light, while careful positioning of windows also allows as much natural light as possible into the interiors. The artists have chosen to eschew electric light, preferring to use candles made of natural wax from the local honeybees.

Equally natural are the plants that have been chosen for the landscaping – they are all local species, and provide sustenance for the artists as well as for birds, squirrels and butterflies!

This is a retreat where the occupants' environmental consciousness and desire for a simple lifestyle are in perfect harmony with the architect's selection of building materials and techniques. Together they illustrate how sustainable architecture can provide a resource-efficient paradigm for anyone who cares about the earth. ■



**Only natural, local materials have been used.
The roof is in timber and thatch,
the flooring is in rustic handmade clay tiles and
even the bed is crafted out of mud and waxed
with honey bee wax!**

