

focus



* The exterior view of the resort at dusk.

Earthy comforts

Tucked away at an altitude of 3,500ft above sea level, this eco-friendly getaway in Kerala and Asia's first 'earth resort' is built of 95% mud and 5% cement. **By Ashraf Padanna**

A resort built of mud is the new attraction for holidaymakers in the southern Indian state of Kerala. Tucked away at an altitude of 3,500ft above sea level on the mist-clad hills of Wayanad, Banasura Hill Resort is Asia's first 'earth resort'.

Spread across 35 acres of verdant terrain and set against the legendary Banasura hills, the resort is a complex of earth rooms, twin villas and suites. Cement constitutes only 5% of the buildings and the rest is the mud abundantly available there besides locally resourced degradable materials.

India's tourism superbrand has recently embarked on a major initiative on sustainable tourism and this resort can rightly claim to be a trailblazer and a strong answer

to the concrete jungles being erected in Kerala's tourist hotspots like Munnar causing large scale environmental destruction.

"The basic concept is there should be no damage to the environment in any manner. Whatever material we use for construction should return to earth after their lifecycle without damaging the eco system," said renowned architect Eugene Pandala.

This is a brainchild of Pandala, who holds his masters in urban design from School of Planning and Architecture, New Delhi. He has pioneered the state's two major heritage conservation projects of Fort Cochin in the port city of Kochi and East Fort located in the state capital Thiruvananthapuram.

According to him, mud is

energy-friendly, safe, recyclable and economical. There is no smell of synthetics, no sound of mechanical systems and no rattling when the wind roars. It simply is a constructed environment that grows from the earth, yet remains as a natural, sustainable environment.

A fellow in heritage conservation at the University of York and Fort Brockhurst English Heritage Training Centre in UK, Pandala was the founding head of the department of architecture at the Architecture School in Quilon, Kerala.

While studying in New Delhi, Pandala met Hassan Fathy and he was heavily influenced and inspired by the legendary architect and author of *Architecture for the Poor: An Experiment in Rural Egypt* who

pioneered sustainable architecture in Egypt.

"Organic designs using natural materials perfectly blend with cultural continuity. The building should be so natural to its surroundings and that exactly is what we have done here too," said Pandala. "The mud used for the building came from the same property."

Pandala has constructed several mud houses over the years but this is for the first time that a tourism entrepreneur has come forward to tap its potential in line with the state's policy of sustainable tourism. His other notable mud buildings include a 13,000 sq ft studio that has a sound-proof room.

Pandala says his concept is not something new. Part of the Great



Wall of China was built of rammed earth and stone in 246 BC and the biggest earthen building is a world heritage site, the Dejenne Mosque in Mali, which can seat 3,000 people. The Kerala capital, Thiruvananthapuram, also has more than 100-year-old mud buildings still intact.

The Banasura Sagar Dam overlooking this resort is also built up of mud and it is India's largest earthen dam and Asia's second largest. Built in 1979, the dam is also a major tourist attraction in the region.

Pandala was here before, to build the tomb of the legendary warrior king Pazhassi Raja, who used the guerilla warfare against the British from these hill forests. The tomb, a mud structure built for the Kerala Government, is situated at Mananthavady on the way to the resort.

According to Pandala, almost 50% of the people all over the world live in houses made out of mud and mud was the major construction material till the beginning of 20th century in Kerala as well.

"Mud construction is cost-effective and renewable though a lot of labour, abundantly available in the region, is involved in it," he says. "The cost can be cut down to almost 40% of conventional construction. It still can be reduced if you use the local earth from the site itself."

Pandala does not prefer geometrical shapes and his buildings have flowing, curvaceous form which is evident here too. He prefers to have lighter roofs that will not be a burden for the walls.

The concept of the Banasura resort is unique in many ways. No air-conditioners are needed as the mud walls act as an effective regulator of heat and cold. And there is a cooling stream flowing through the property.

The main building of the resort with a plinth area of 20,000 sq ft is a massive two-storey structure made entirely of mud with a roof of bamboo and coconut palm fronds. All the 31 spacious rooms, villas and suites are tastefully furnished.

A multi-cuisine restaurant,



* Coffee shop

coffee shop, conference hall, Ayurveda spa, library, playing area and gym are awaiting the guests within the muddy walls. Rooms have modern bathrooms, terracotta flooring with wooden floors around the bed.

Recycled wood is used for much of the woodwork and periodic anti-termite treatment is done using cashew-shell oil rather than chemical agents. Natural light is exploited to the fullest, while CFL lamps provide extra lighting, minimising energy consumption. A bio-gas plant recycles organic waste and fires the resort's kitchens.

The only handicap of this resort is that it's a bit unfriendly to the disabled and the elderly like all similar structures built by Laurie Baker, the British-born Indian architect considered the guru of cost-effective and energy-efficient architecture, and his disciples in Kerala.

Pandala employs rammed earth technique. Only 3ft high walls can be made in a day and it must dry before the next portion is made

in Kozhikode. You'll be greeted by swinging monkeys at the hairpin bends (there are nine) as you wind your way up through the 14-km long mountain pass through the canopy of tree branches amidst the misty hills.

The traditional Kerala cuisine, using spices which Wayanad is famous for, is the highlight of the multi-cuisine restaurant. You can savour the delicacies taking a breathtaking view of the surrounding landscape.

The Ayurvedic spa where an excellent package of rejuvenation therapy is available is another attraction. On offer here are massages using herbals oils for body, face and head and an herbal steam bath that would follow.

You can also take a guided trek to the forests or visit the historical and religious monuments.

Banasura hill, Pookote lake, Meenmutty waterfalls, Kuruva island, Soochipara Kanthanpara waterfall, Chembra peak, Begur wildlife sanctuary, Tholpetty wildlife sanctuary and Muthanga wildlife reserve are some of the options. Or you can visit the tribal hamlets at the foot of the Banasura hill which has been in existence for centuries.



* Lobby

over it and that way the labour involvement is much high. It is a time consuming process too.

"In this technology, we use damp or moist earth with or without additive which in this case is 5% cement," he says. "Earth is flexible because it can be moulded and shaped when wet, and rammed and pressed when moist. It hardens when exposed to the sun making it a durable building material."

Mud is non-toxic, non-allergic, rot and termite proof, controls humidity and offers great sound isolation. These structures can balance fluctuations in temperature throughout the year.

"We initially planned to build the resort for our executives in India and abroad to unwind, but decided to tap its commercial potential as the enquiries swelled," said Shankar Thiruvillakkat of Advanced Software Services Inc (ASSYST), a US-based software development company with its strategic support facility based in Kochi, which owns the resort.

The nearest airport and railway station is three hours' drive away



* Mud structures can balance fluctuations in temperature throughout the year.



* Lounge



* An inside view of one of the rooms at the Banasura Hill Resort.