

# EARTHSONG

AESTHETICS IS ALWAYS INTERLINKED WITH FUNCTION; WE CANNOT VIEW HUMAN INTERACTION WITH THE HABITAT IN isolation. Elizabeth Eapen meets architect Revathi Kamath, who has been trying over the years to renew interest in mud as building material even in an urban context



THE house is contemplative, peaceful, inward looking. Unlike its counterparts in the city, it strives to make no statement, or even to make itself heard. It exists in an isolation that is unique and yet seems completely at peace with itself in that isolation. It somehow becomes easy to understand that between this house (made primarily from mud—somewhat unusual in our urban context) and its inhabitants, there exists a constant dialogue; something elemental, yet complex, a series of tactile exchanges that translates into the business of daily life.

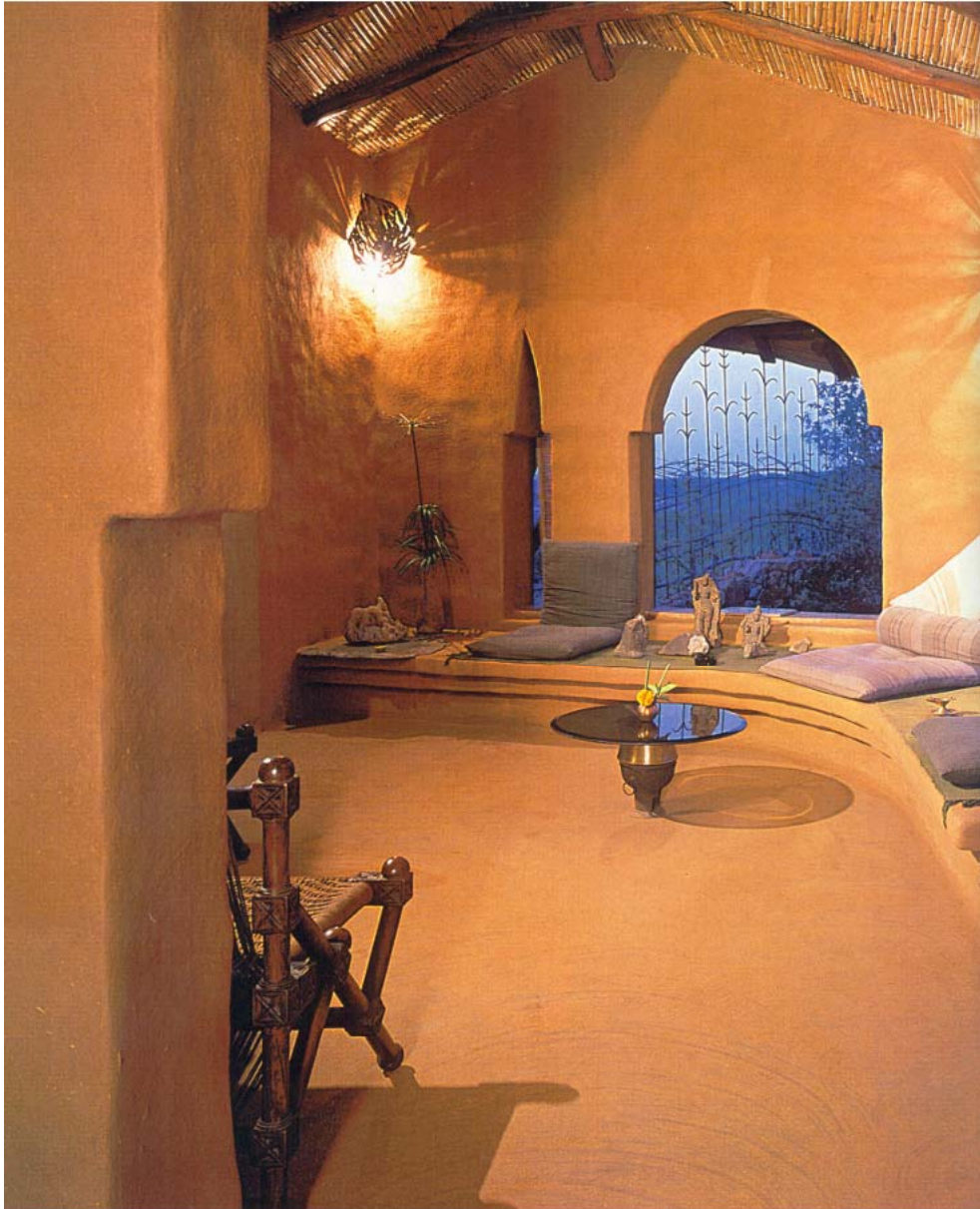
Revathi and Vasanth Kamath's home in village Anangpur, across the hill from Surajkund, just outside Delhi, is not your usual house. But then Revathi is not your usual architect. I first met her several years ago on an assignment for another design magazine with which I was working at the time. Sitting in her earthy, unpretentious office, the young journalist in me thrilled to the passion with which she spoke of her mission—to give back to the earth what we receive from it. In a profession like

The house has a 'green' roof on which are grown seasonal vegetables and hardy perennials

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architecture, I reasoned, this should be easy, but quite obviously, from what we see around us, it is not. If we think about buildings and materials and the men and women who fashion them, we would quickly realise that sustainable, eco-friendly, renewable are just so many words, some more fashionable than others, in the lexicon of architecture. Traditional materials like mud and brick are fighting a losing battle with their clever, slick contemporaries like glass and steel. Revathi's philosophy marks her out as a lonely practitioner, like Laurie Baker, who I believe is one of the greatest architects of our time, and whose pioneering work radically altered for a period in time, the face of a small State in the far south—Kerala. It is a sad reflection of our priorities and lack of understanding of the gifts of the earth, that he is little known elsewhere in the country.

For years, Revathi says, she tried to bring together a group of people who believed in alternate methods of both architecture and living—"rather what was understood as alternative in those days," she says, wryly. "We made many efforts to get this project

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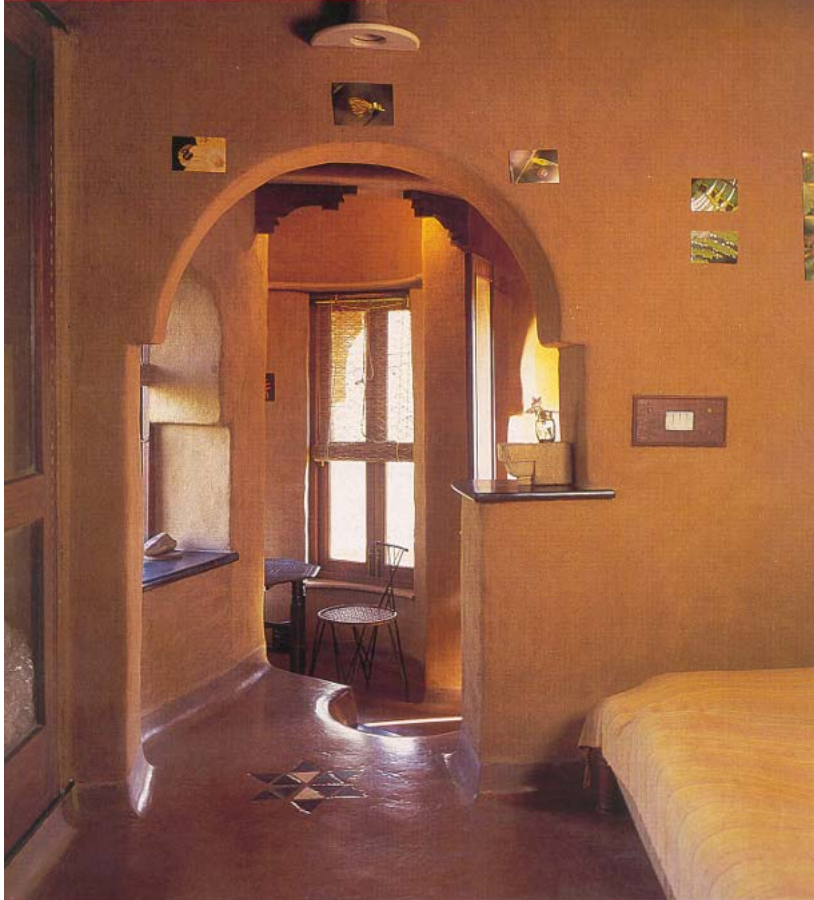
off the ground, even started the initial design for some houses, but it did not work out. And so, when we finally got a piece of land in this village, we were determined to build our home here". Anangpur has an interesting history—it was the village of Raja Anangpal, and the last seat of Hindu power in the area. Surrounded by lush forested areas and open land, the area once had an abundance of exotic wildlife, which has now dwindled over time as more and more human habitation makes inroads into the land.

It is unfortunate that in our rush to get ahead, we forget the wisdom of traditional Indian architecture, honed over years of research and the infinite wisdom of trial and error, on sustainable materials and renewable energy sources. Raw material for housing was also always derived from the same site or close to it, recalling the Gandhian tenet that buildings should be made of materials that can be procured within a five-mile radius. The house is made almost entirely of mud, almost all of it from the site itself. There is also some stone, but again from not too far away. Mud bricks were made on site, left to 'cure' and then used as building blocks. Stone walls exist only as retaining ones, one face of the courtyard is in stone and the remaining three faces

Living spaces flow free and easy. The soft contours of mud allow for this, and furniture and accessories have been deliberately kept spare and simple. There is an abundance of 'crafty' pieces throughout the house



## ARCHITECTURE



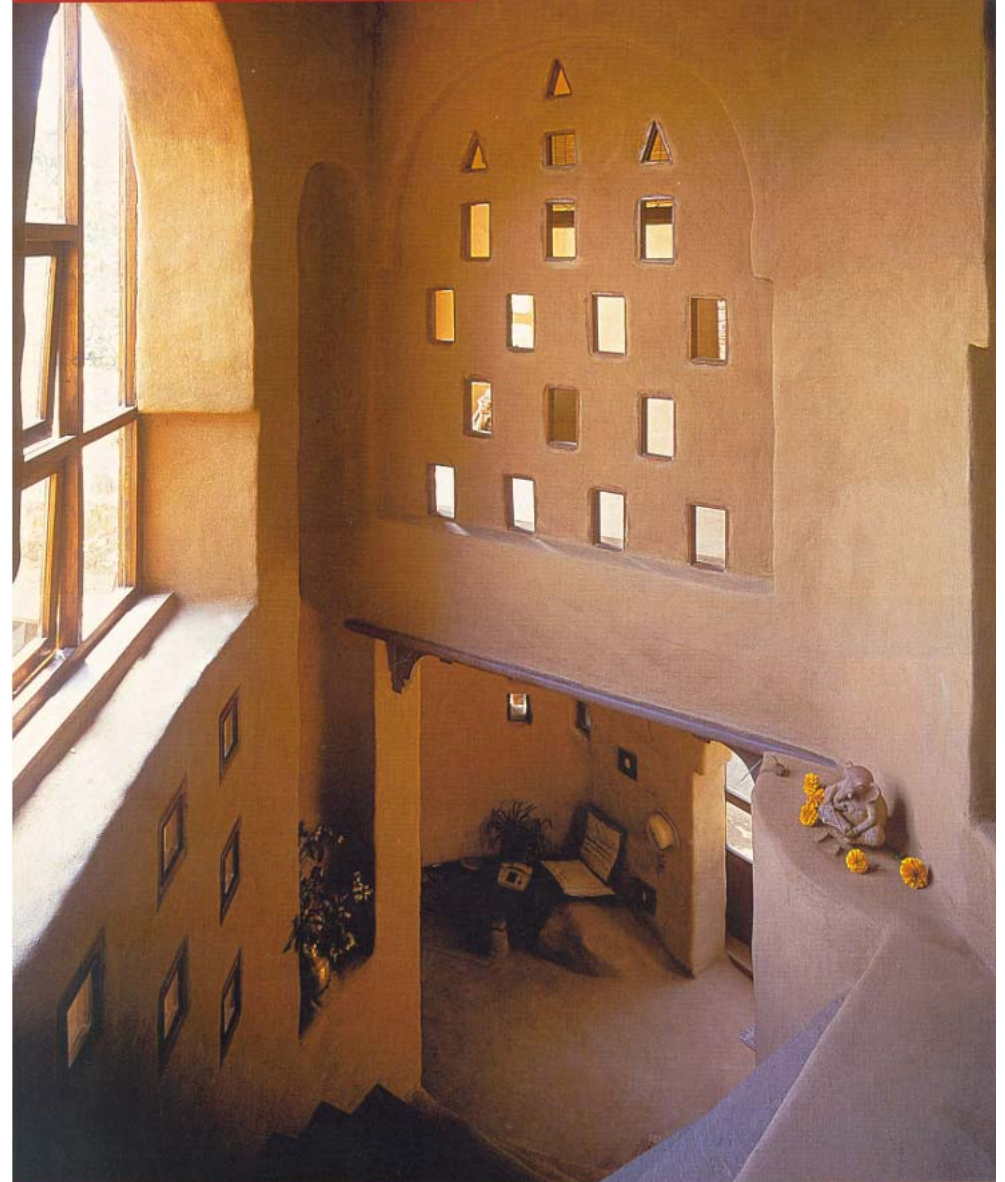
Flooring is made warm by the use of red oxide, and enlivened by geometric insets with pieces of leftover stone

Between the house and its inhabitants, there exists a constant dialogue, a series of tactile exchanges

are in mud. So how has it held up over the years, I ask Revathi, a somewhat redundant question as the house seems to have done that quite well. But for the layperson, many queries come to mind. What about insects? Does it crack? Ten years later, it looks as sturdy as any contemporary counterpart held up by the arro-

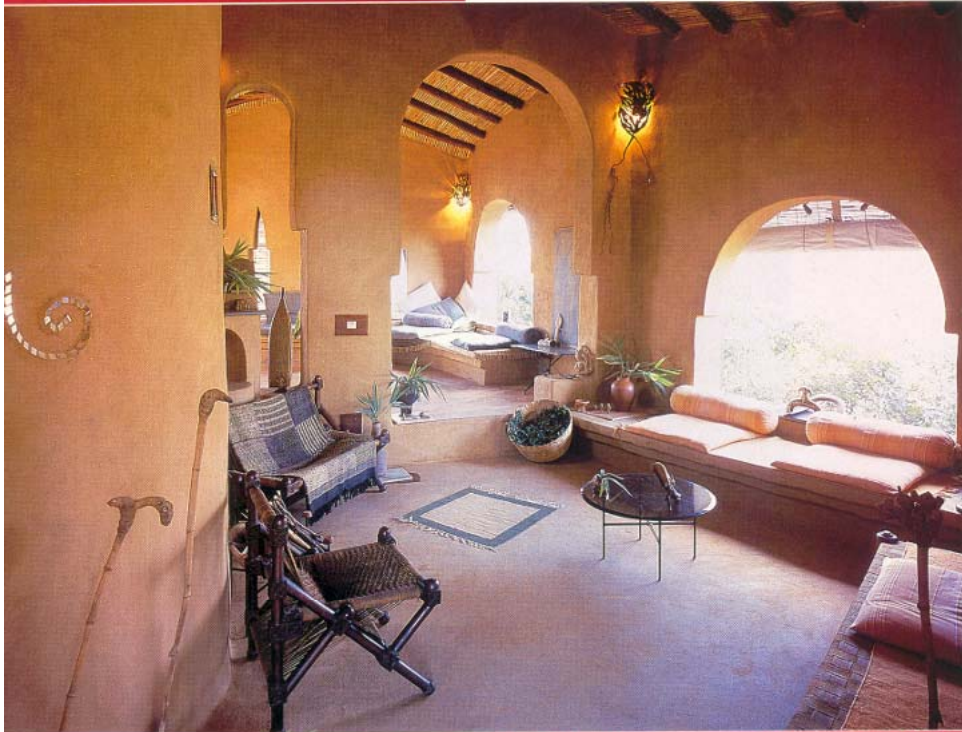
gant power of concrete and steel. Every year, after the rains, a neem spray is used on the surface—"We've also started a process of rubbing the walls with a light paste of turmeric and water—we just massage it into the walls with a sponge." The essentially 'breathable' quality of mud means that in the monsoons it

## ARCHITECTURE



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## ARCHITECTURE



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retains moisture and in the winter lets it out, with the result that fine hairline cracks or fissures appear—these are not really cracks or evidence of any structural problem, but just manifestations of the natural behaviour of mud. "Most people are not aware of how strong a mud house can actually be", explains Revathi. The mud is soaked in water for ten days, a critical process as it induces ionisation and a molecular reformation in it. The clay platelets in mud tend to realign themselves in hori-

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For the ceiling, bamboo has been used as a load bearing material, it rests on eucalyptus logs and the whole is then bound with wire—rather like a mat made out of bamboo. Over this is an inch-and-a-half of rich cement mortar, over that a layer of water proofing. Six inches of soil and ground cover complete the roof, which provides an unusual exterior view and a very cool interior, in more ways than one

zontal layers which petrify and get harder and harder over time, to form mudstone. And once a certain level of plasticity is achieved with water, a certain molecular complexity is created within the mud, and the chemical bonding that occurs results in incredible strength, of up to 60 kg per sq ft. As for dampness, it does not penetrate more than a millimetre—the 12 inch thick wall remains dry at its core.

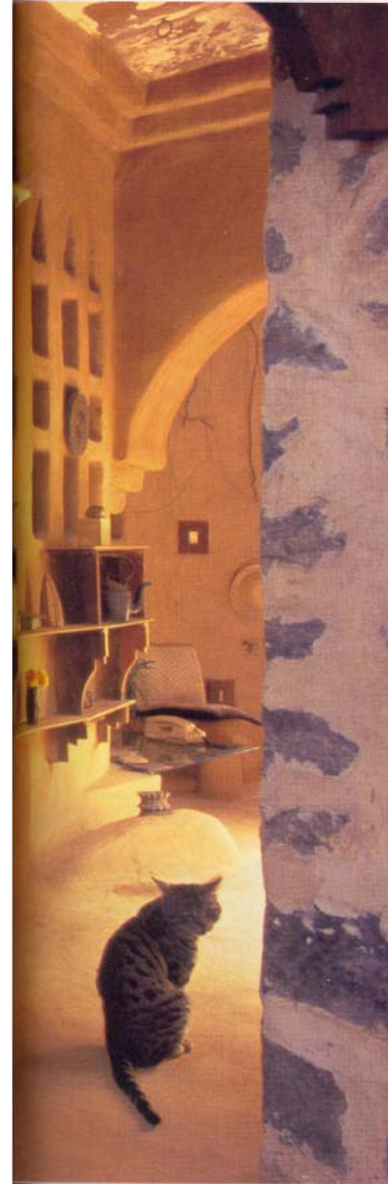
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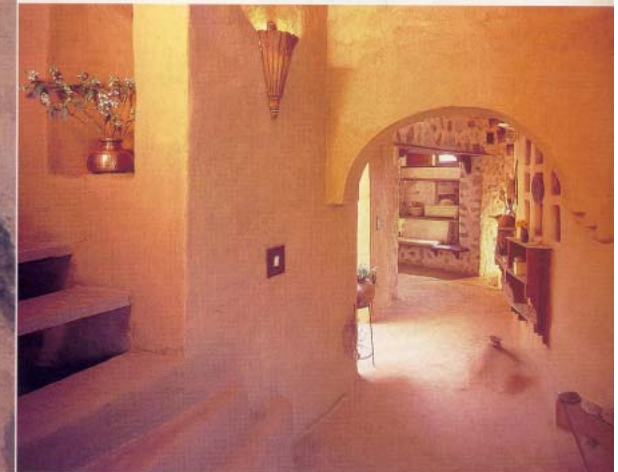
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half of land, and surrounded by an unstudied wealth of green, has been dictated by the site, and not the other way around, so there is an easy flow to the contours of the building and to the spatial arrangements. The essentially soft and graceful lines of mud allow for breathing, interactive spaces, filled with simple furniture and accessories, mainly fashioned out of rope, cane and bamboo. Bedrooms are made warm by the use of red oxide flooring, enlivened by stone insets in geometric patterns ("leftover stone from what we've used elsewhere").

There is a constant consciousness to recycle, reuse, renew. Neem leaves from trees that grow all over the site are burnt to keep away mosquitoes, and the ash goes back into the soil, water is also harvested and recycled.

In the 25 years that she has been practicing architecture, Revathi Kamath has been trying to propagate the use of mud in architecture. She is the first to admit that the task has been far from easy. "I do work with materials like steel, cement, concrete and brick, they have their own place. But as I see it, mud is under-utilised and for me it was, and continues to be, a great challenge to bring it into the vocabulary of architecture. People are opting out of mud houses and the old wisdom will soon vanish, my mission is to keep it going, try to make the knowledge available to all. But you have to know how to use it, be humble while working with it, understand its movements. It's only when you start living in a mud structure that you feel its vibes, realise its power, its depth, the oneness it creates, the harmonising with nature. I think it is possibly the best material for human habitation, in terms of one's well-being and connectedness with the universe."

Amen to that.



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