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# Sustainability

Locally available natural materials in building design to bring down cost of construction and enhance sustainability, have brought the focus back on indigenous architecture once again. This *Environment Day (June 5)*, let's explore their significance

## THE RETURN OF THE NATIVE

LEENA MUDBIRI  
@timesgroup.com

Every built space can sing poetry. One only has to appropriately feel the blend that nature and materials offer  
— Prof K Jaisim

It's back to the roots for Indian architecture. Today, architects and the construction industry are working together to incorporate naturally available local materials such as mud, clay, stone, bamboo, etc. to bring down cost, and in the process have succeeded in infusing that raw, natural appeal into the living environment.

### Local call

Tracing the story of ancient architecture, prominent architect Prof K Jaisim, known for his views on nature-friendly features, and advocacy of cost-effective, energy-efficient approach, shares, "Early human settlements, depending on agriculture, used whatever was available - limited by transport and labour - in most cases, it was the soil. But these had limitations with climate and weather being the restraints. Travellers brought new insights, trade and manufacturing changed habits due to which the language of architecture revolved around these significant patterns, while having strong roots of the people and the place."

### Design dynamics

Ancient traditional Indian homes often opened into the typical large square courtyard surrounded by the rest of the house. According to Prof Jaisim, courtyards, verandahs and ventilation integrated both, family and space. "Deep family cultures evolved. Human interaction - emotionally and sympathetically - became a pattern," he says. Modern residential enclaves, often homogenous clusters of community living, are bringing back these traditional designs revolving around natural elements. While some builders are leaving the landscape untouched and building homes around the rocks and trees, others are infusing their projects with pebbled pathways, mini forests, and water features.

Contemporary construction design is gradually veering towards the use of locally available materials to bring down costs.

"Geographic proximity of building materials to the actual construction

site reduces transport cost by 10-15 per cent along with decreasing carbon footprint by way of reduced fossil fuel consumption," points out Monanda Appaiah, MD, Wienerberger India. "Hence, one of the key criteria for green building materials is that the material must be locally produced," he adds.

### Technology in the details

Contemporary building design is built on innovation technology, thus incorporating the natural materials, which were available centuries ago.

"Clay has been historically accepted and widely used material in the Indian peninsula for millennia," says Appaiah. "Clay is best suited for Indian climate. Using clay based building materials is not only natural and environment-friendly, but also makes investment sense. Technological advancements in the construction sector are bringing in newer building materials that can better service the demands of the contemporary markets. Developing traditional clay bricks with new designs like Porotherm hollow blocks, can improve thermal insulating property of the ordinary clay blocks and thus naturally influence the ambient temperature of the house,



### INDIA'S LOCAL MARVELS

LOCAL NATURAL PRODUCTS AND WHERE THEY ARE AVAILABLE IN THE COUNTRY:

#### Wood

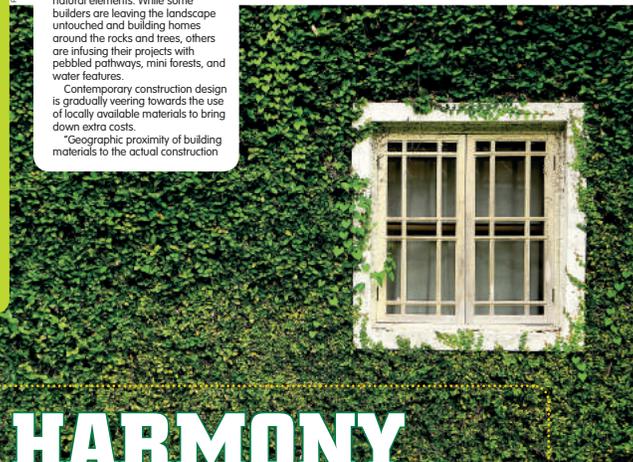
- Timber like *ain, baudo, jambal and shiva* - Maharashtra;
- Yellow jack wood - Karnataka, Kerala, Maharashtra, Tamil Nadu;
- Rosewood - Kerala, Karnataka, Maharashtra, Madhya Pradesh, Tamil Nadu, Odisha;
- Walnut wood - Kashmir;
- Bamboo - throughout India especially in the north eastern states.

#### Stone

- Marble - Rajasthan;
- Basalt stone - Maharashtra;
- Limestone - coastal areas of Karnataka, Goa, Maharashtra;
- Limestone - Kota and yellow limestone stone in Rajasthan, Shahdol stone of Gubbarga in Karnataka;
- Slate of yellow and green variety - Rajasthan, Haryana, Himachal Pradesh, Andhra Pradesh, and Madhya Pradesh;
- Granite - Salarhali granite of Bengaluru, Karnataka;
- Mangalore tiles - Karnataka, Kerala;
- Kadappa (Cuddapah) stone - Andhra Pradesh.



PHOTO: SHREYAS



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## HOME IN HARMONY

We have increasingly become aware that our home is an extension of ourselves. Therefore, read on to understand how you can find a degree of emotional comfort through your home

SHEHZIN SHAIKH@timesgroup.com

Studies have shown that the choices we make while designing our home plays a major role in the way we handle a crisis. In fact it's not only the location of your home, but also how you live in that home that affects the way you perform and carry on with your day-to-day activities.

For instance, if you wake up to a leaky ceiling and the paint peeling off your wall, the irritation seeps into your sub-conscious and you might feel depressed all day. On the contrary, if your eyes open to greens in

the house, it would fill you with a sense of happiness and tranquility. Hence, experts are of the opinion that every corner in the room should be a reflection of an individual's personality as it lends them a sense of comfort and safety.

### A BIT OF PEACE AND QUIET:

A working adult today has a hectic life. Experts point out that it is because of this stress, that we all want our homes to be our bubble, a place to recharge our emotional batteries so that we are able face another day out in the arena. "In today's hectic times, it is important to create a space that helps the user switch off from the outside world and enter a calm and peaceful environment to help restore your energy. With current lifestyles, your home acts as an escape to disconnect from the outside world,

where you can relax, rejuvenate and spend quality time with family. Hence, people today are reaching out to design solutions and décor items to create an atmosphere, which is not only positive, but also emotionally-comforting," says Anika Mital Dhawan, founder and director, Mold Design Studio.

### AESTHETICS MEET WELL-BEING:

- If you are looking to create a comfortable zone, Imran Iltan, concept designer, The Gold Leading Studio, shares some tips:
- First of all, declutter your home every week and ensure that your house is spick and span;
- If you are fond of reading, create a small reading corner for some me-time;
- Incorporate little elements such as

scented candles, fresh flowers or a painting in your living room;

- Soft lighting sets the tone and creates the atmosphere in a room.

Emotional needs are generally tied to one's family and memories. Therefore, memorabilia around you contributes heavily to making your house a 'home'. "To fulfil the emotional quotient of your house, try using pieces of art or collections that are close to your heart. It could be picture frames with photos of family and friends. Or it could be souvenirs collected on your holidays and ventures around the globe," says Ritu Goregaoker, design director, GA design. She further says that a comfortable and a cozy throw or rug over the sofa will give you not only physical comfort, but also emotional ease.

Similarly, indoor plants create a space, which is more breathable and comfortable. Lastly, if you own old furniture or vintage pieces, which have stories attached to it, incorporate them in a corner of your house since it will create a positive and nostalgic vibe.



### AN EMOTIONAL CONNECTION:

The spatial design of any space is vital as it influences the occupant's mood. Therefore, Dhawan lists down what could work or not for you if you are looking to create an emotionally-comforting space for yourself:

- A lack of light can create a dull and depressing atmosphere. On the other hand, a combination of daylight, functional and artificial lighting will enrich the character of a space;
- Shades show that use of colours in a space can affect the mood and energy levels of a person. Lighter colours such as white, yellow, blue, pink, etc. can make a smaller space look larger and more spacious, while darker colours such as brown, grey, violet, black, etc. make spaces seem smaller;
- The structure and shape of the furniture also affect the visual comfort/emotions of the inhabitant or user;
- Clutter-free spaces reduce chaos, distractions and improve productivity, while on the other hand, a messy and dirty environment gives out an unsettled and irritable vibe;
- Rooms with higher ceilings stimulate an inviting gesture and creativity, whereas lower ceilings restricts your sense of freedom.



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