

Ar. Rajiv Khushlani's house project **Indore** 

Ar. Garimella's penthouse design **Mumbai** 

Ar. Nilanjan's design for a weekend home **NCR** 

Ar. Nishita Kamdar's, jhoolas

SHOPPING

MUST-HAVES

for the coming year

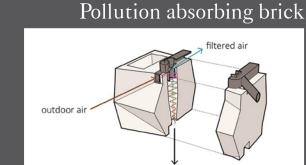
# Homes in 2030

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## Ar. Pragya Sanghavi

### Director and head of research, Pentaspace

"Thermo-plastic carbon-fiber plastic composite, pollution absorbing bricks, light generating cement, 3D Graphene, hydro-ceramics, wool Bricks, aluminum foam will be the materials of the future."







#### **BUILDING MATERIALS**

- \* Cabkoma Strand Rods: They are thermo plastic carbon fibre plastic composite, which can be used for seismic reinforcement.
- \* **Pollution absorbing bricks**: These bricks will suck the pollutants from the air and release-filtered air.
- \* Light generating cement: This cement has the ability to absorb and irradiate light. This has immense potential in the construction industry.
- \* **3D Graphene**: It is a lightweight material, which can be used in skyscrapers and is ten times stronger than steel.
- \* Transparent Aluminium: Good for large size windows as this material is resistance to corrosion, radiation and oxidation.
- \* Hydro-ceramics: A membrane made by ceramic fabric and hydro gells that can absorb up-to 400 times its volume in water. It can be used for cooling building temperatures thus saving the electricity cost.

  \* Wool Bricks: These bricks are fused with wool and
- \* Wool Bricks: These bricks are fused with wool and seaweed polymer and have more strength than regular bricks. They can be used in cold climatic conditions.
- \* Aluminium Foam: It is a 100% recyclable foam made by injecting air with molten metal. It can be used for building cladding.

#### MATERIALS OF THE FUTURE

Current forms of concrete need to evolve into self-healing and bio receptive concrete. A self-healing concrete is a concrete with water-activated bacteria that produces calcite to heal cracks. It is used to reduce infrastructure maintenance and cutting greenhouse gases. A Bio Receptive Concrete can be a viable alternative to large-scale green walls, which can often be expensive to maintain They would require less maintenance.

#### **BREATHABLE WALLS**

The facade of the buildings should be covered with porelike holes to enable the walls to control the temperature and air quality inside a building. These holes should open and contract to control air flow and light levels inside a building. These breathable walls will have air filters, which will enable us to breathe pure air inside our homes.

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