

BELGUDI MANE



The only remedy for uncertain times is an optimistic mindset.
A future where homes serve as more than just shelters, but as symbols of responsible stewardship of our planet and the preservation of traditional craftsmanship.

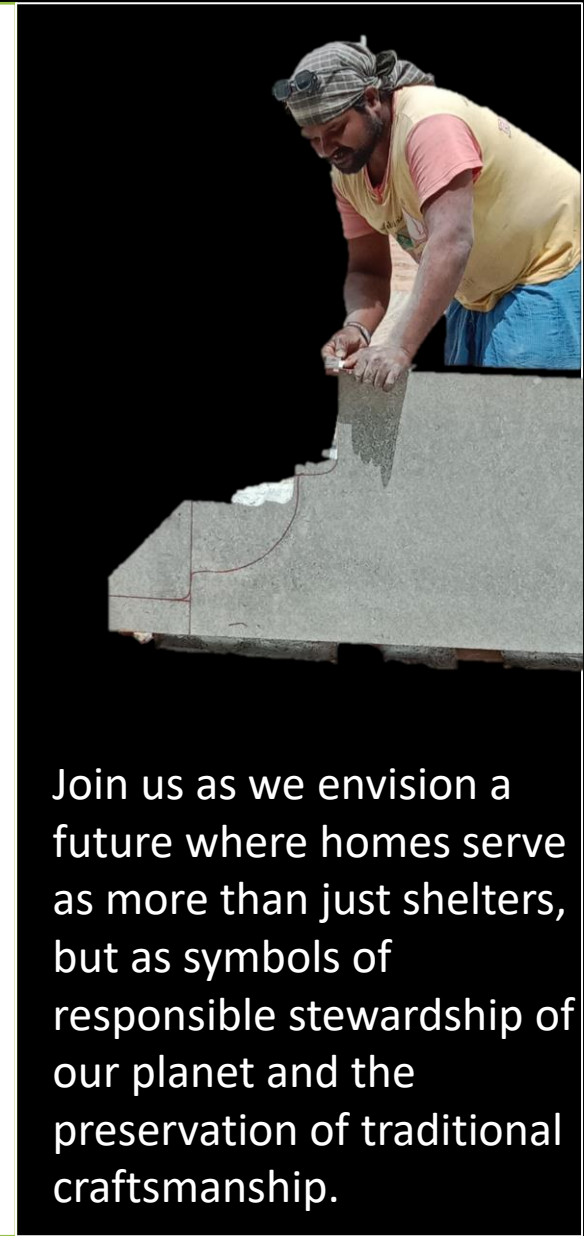
The future lies in the hands of those who chose to act.



Welcome to the presentation by Belgudi on Sustainable Stone Homes: Building a Legacy for Future Generations. Today, we embark on a journey through the transformative world of eco-friendly architecture, showcasing our innovative approach towards sustainable living.

In this presentation, we introduce the concept of sustainable stone homes and underscore their significance in promoting environmental sustainability and architectural innovation. Together, let's explore how these homes not only address the urgent need for eco-conscious living but also embody timeless beauty and cultural heritage

The word BELGUDI is derived from BELAKU which means light and GUDI means home, a temple of rays.



Join us as we envision a future where homes serve as more than just shelters, but as symbols of responsible stewardship of our planet and the preservation of traditional craftsmanship.

Let's dive into the potential of sustainable stone homes to shape a better world for generations to come.

STONE STRUCTURE BUILDINGS



HOYSALESWARA TEMPLE IN
KARNATAKA
12th-century



Hampi
14th century.



Akshardham Temple
2005



STONEHENGE
3000BC-2000BC



Durga temple
7th - early 8th century



Fatehpur Sikri
16th-century

Stone is one of the world's oldest building materials, appreciated for its strength and durability. In ancient times it was chosen for its abundance: As a natural material, it was readily available and dependable.



- Each design pays homage to iconic structures like the Chennakesava Temple, their secrets woven into our modern vision.
- Imagine the future, where heritage and sustainability coexist, **where homes tell stories of the land and its history.**

Through a combination of these environmental, economic, and social benefits, our Sustainable Stone Homes offer a holistic approach to sustainable living that not only minimizes environmental impact but also enhances quality of life and strengthens community bonds.

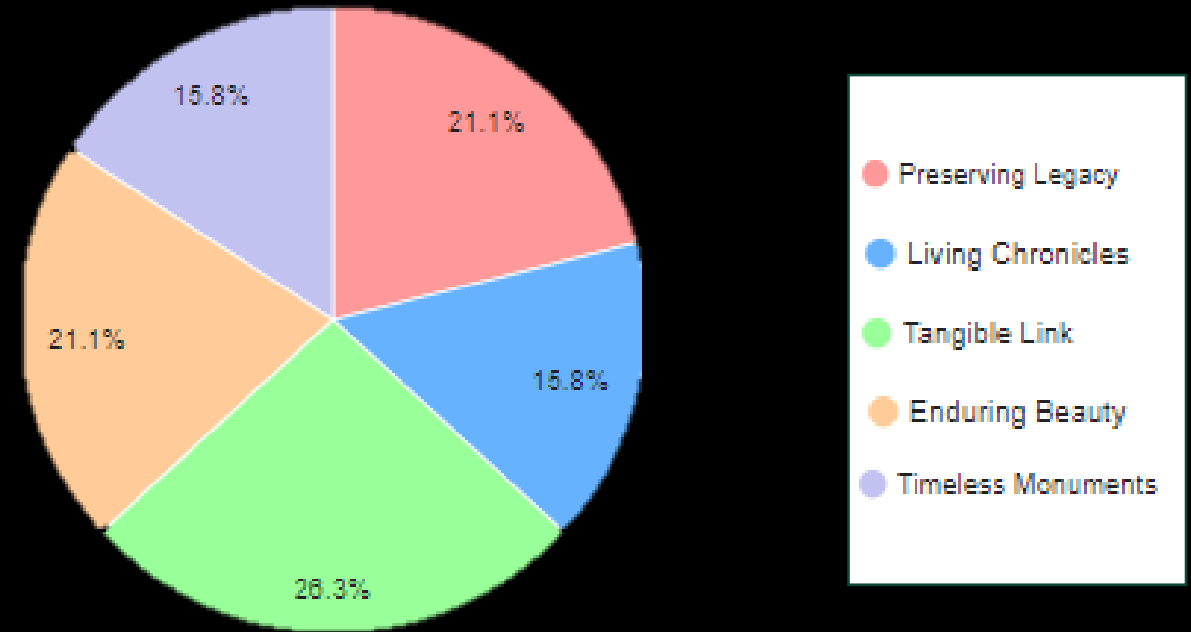


As the demand for sustainable housing options continues to grow, our homes stand out as a desirable choice for those seeking a harmonious balance between modern comfort and environmental responsibility.

Dimension	Benefit	Description
Environmental	Reduced Carbon Footprint	Minimize emissions through sustainable sourcing & less reliance on non-renewables.
	Resource Conservation	Promote responsible resource use, preserve biodiversity & minimize habitat destruction.
	Improved Air Quality	Natural materials & energy-efficient design contribute to cleaner, healthier air indoors.
Economic	Enhanced Durability & Longevity	Stone's strength & durability reduce need for frequent repairs & replacements.
	Potential Cost Savings	Energy-efficient features lower utility bills & operating costs over time.
	Increased Property Value	Sustainable features & eco-friendly construction enhance value & appeal to buyers.
Social	Community Well-being	Create spaces for engagement & cultural preservation, fostering community pride & connection.
	Cultural Preservation	Incorporate elements of traditional craftsmanship & architectural heritage, safeguarding local culture & identity.
	Health & Comfort	Natural materials & energy-efficient design promote occupant health, comfort, & overall well-being.

Comparitive study between brick and stone

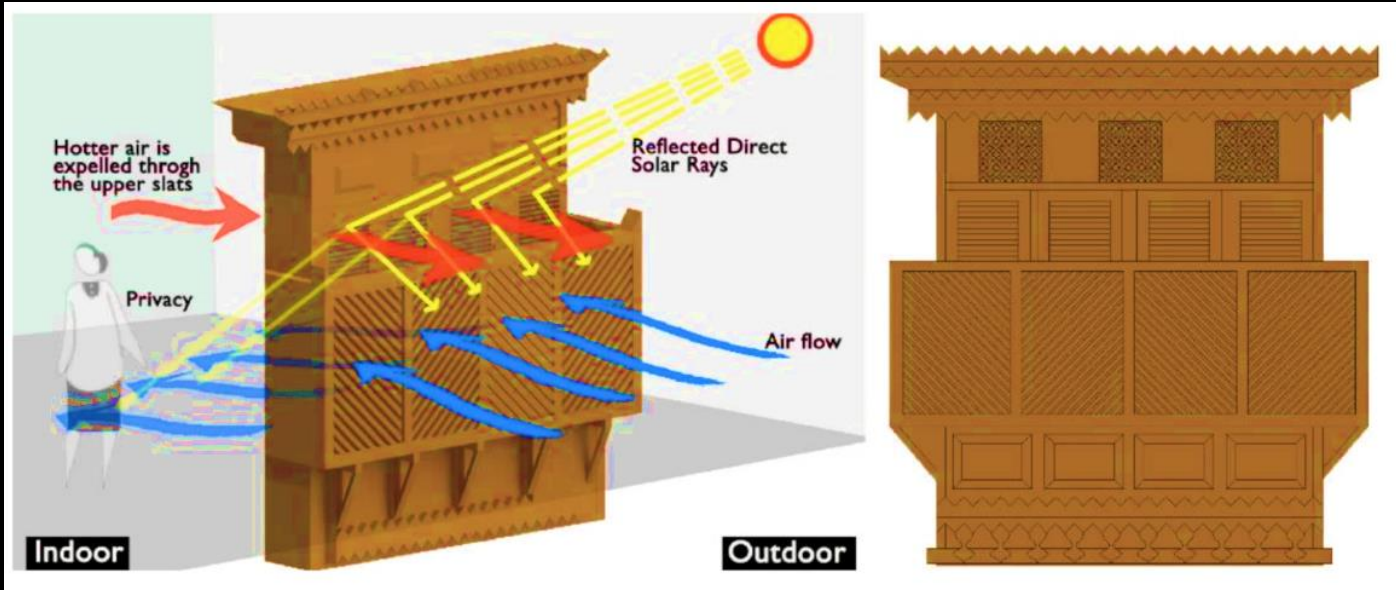
Feature	Stone	Brick
Strength & Durability	Stronger, more weather-resistant	Less strong, more susceptible to wear and tear
Plastering/Painting	Not required for exposed walls	Required for exposed walls
Chemical Resistance	More resistant to salts and chemicals	Less resistant, can be affected by sewage & urine
Lifespan	Longer lifespan	Shorter lifespan
Damp-proofness	More damp-proof	Less damp-proof
Crushing Strength	Higher crushing strength	Lower crushing strength
Uniformity	Less uniform in shape and size	More uniform in shape and size
Variety	Wider variety of colors, shapes, and textures	Limited variety of colors, shapes, and textures
Aesthetic	More suitable for rustic, creative, or artistic styles	More suitable for modern, uniform, or minimalist styles



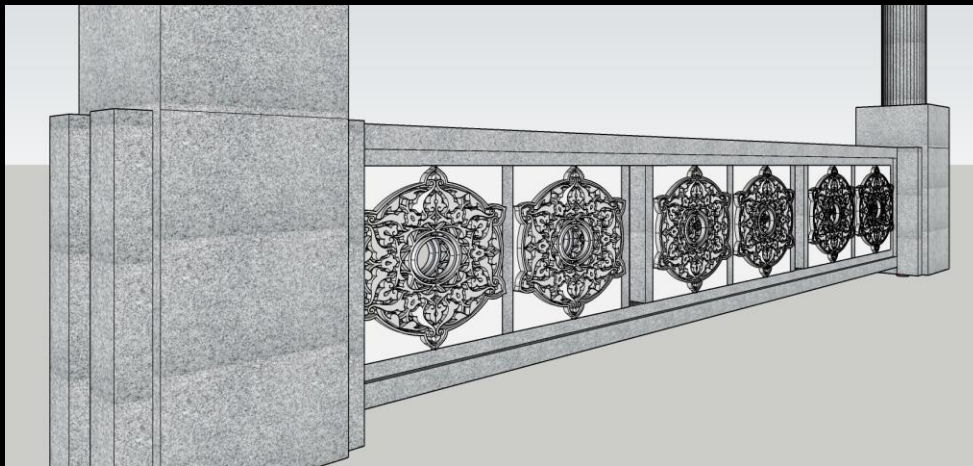
Sustainable Stone Homes: A Bridge between Past, Present, and Future

- **Homage to heritage:** Celebrate India's architectural legacy through modern adaptations of traditional techniques.
- **Tangible link:** Embody different historical periods, connecting past, present, and future generations.
- **Living experience:** Future generations inhabit these homes, appreciating their beauty, resilience, and cultural significance.
- **Timeless monuments:** Careful preservation ensures these homes transcend generations, becoming testaments to heritage and environmental responsibility.

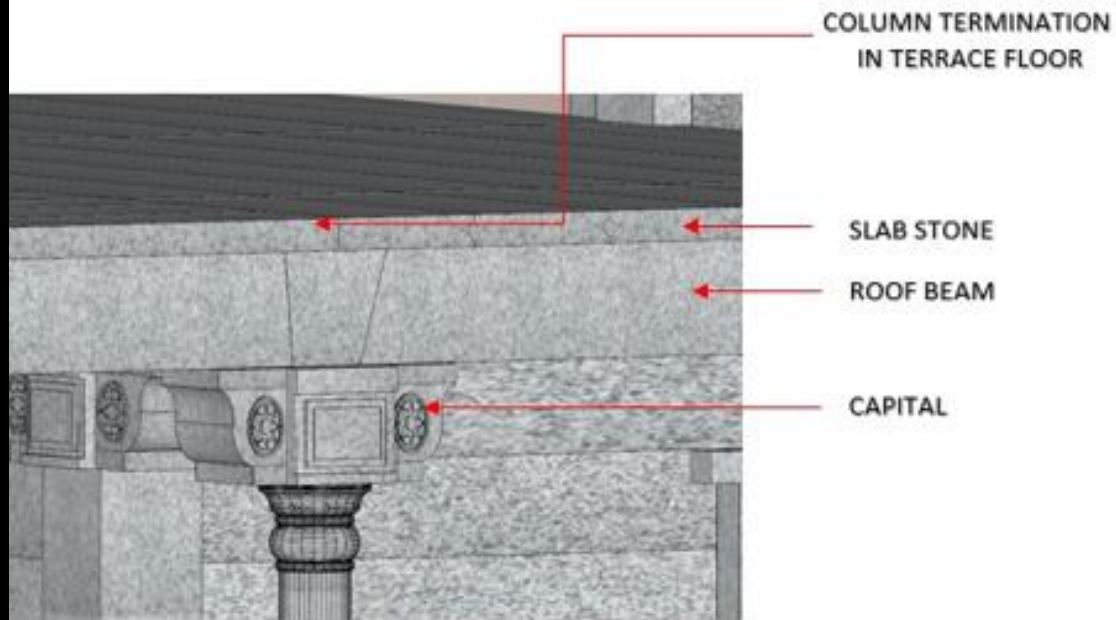
Scientific and Climatic Benefits of Sustainable Stone Homes



•Overall, these features can significantly reduce energy consumption and reliance on fossil fuels, leading to a more sustainable and environmentally friendly living environment.



Feature	Scientific/Climatic Benefit	Description
Natural Beauty	Reduced environmental impact	No paint or siding needed, minimizing resource consumption and chemical emissions.
Passive Solar Design	Improved energy efficiency	Absorbed heat radiates throughout the night, providing natural warmth and reducing reliance on heating systems.
Thermal Mass	Natural temperature regulation	Stones act as thermal batteries, storing heat during the day and releasing it at night, reducing energy needed for heating and cooling.
Easy Maintenance	Reduced water and chemical use	Simple water washing eliminates need for harsh cleaning products.
Passive Cooling & Daylighting	Reduced energy consumption	Strategically placed openings maximize natural light and ventilation, minimizing reliance on artificial lighting and cooling systems.
Courtyard Integration	Enhanced natural light and ventilation	Large windows facing courtyards optimize diffused light and air circulation, promoting natural cooling and reducing reliance on artificial means.



JOINERY DETAILS OF WALLS TO COLUMN AND WALLS TO DOOR WINDOW STONE FRAME.

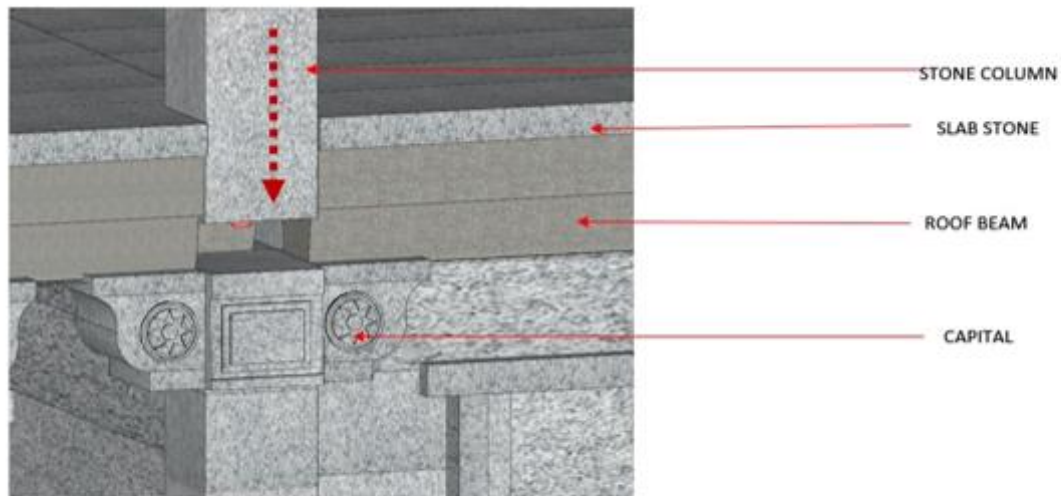


Figure 4.7. PLACEMENT OF CAPITAL IN BETWEEN BEAMS AND SLAB ON LOWER FLOOR CAPITAL.

Stages of Stone Placement in Sustainable Stone Homes:

Foundation:

1. Footing Stone: Placing large, flat stones as the base of the foundation to distribute weight evenly.

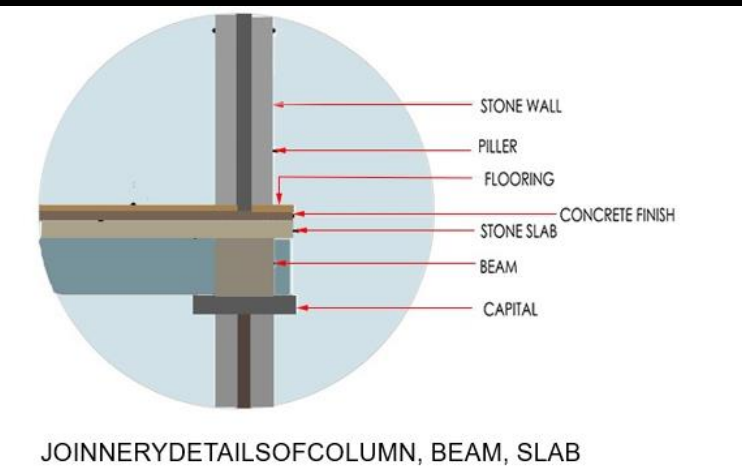
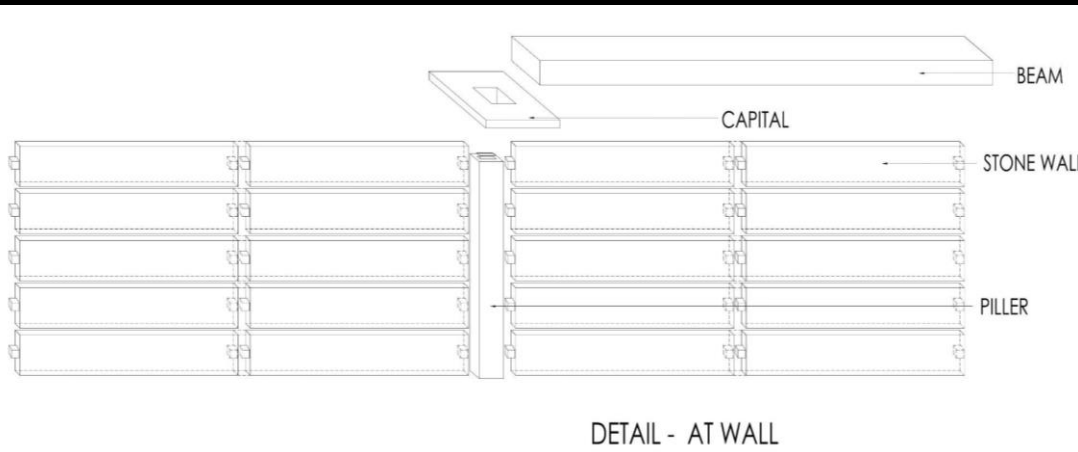
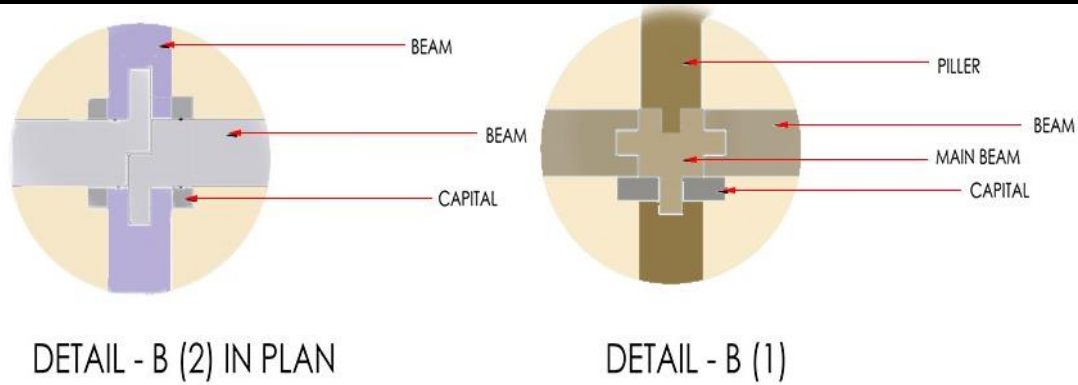
2. Strap Beam Stone: Laying stones horizontally across the footing to create a level platform for the walls.

Structural Elements:

3. Stone Column: Building vertical columns using individual stones stacked and mortared together.

4. Stone Plinth Beam: Constructing a horizontal beam above the columns to support the walls and distribute weight.

5. Stone Wall: Raising the walls stone by stone, adhering to specific bonding patterns for strength.



First Floor Construction:

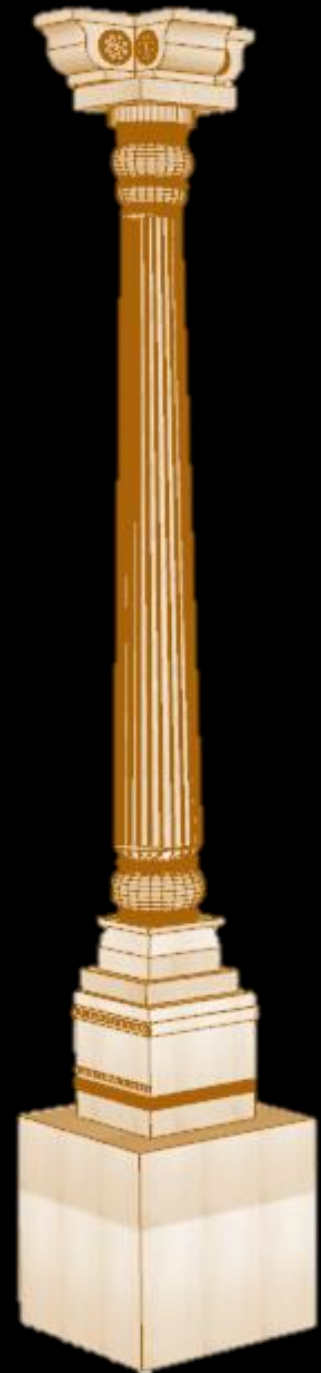
9. First Floor Column Layout: Building additional columns on the ground floor, following the chosen floor plan.

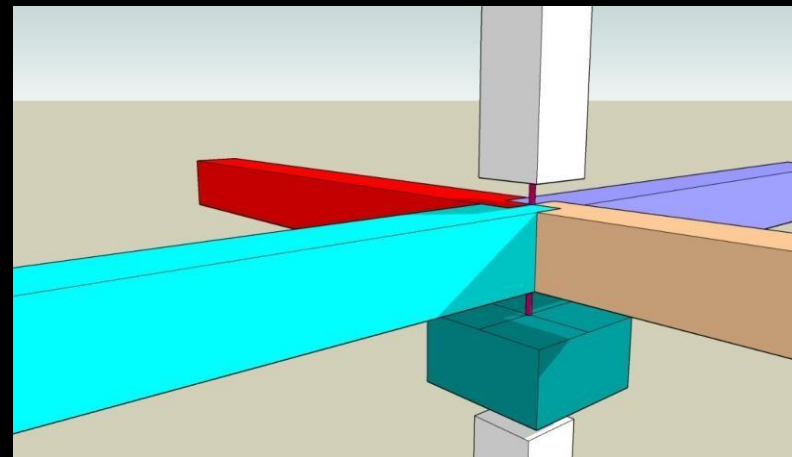
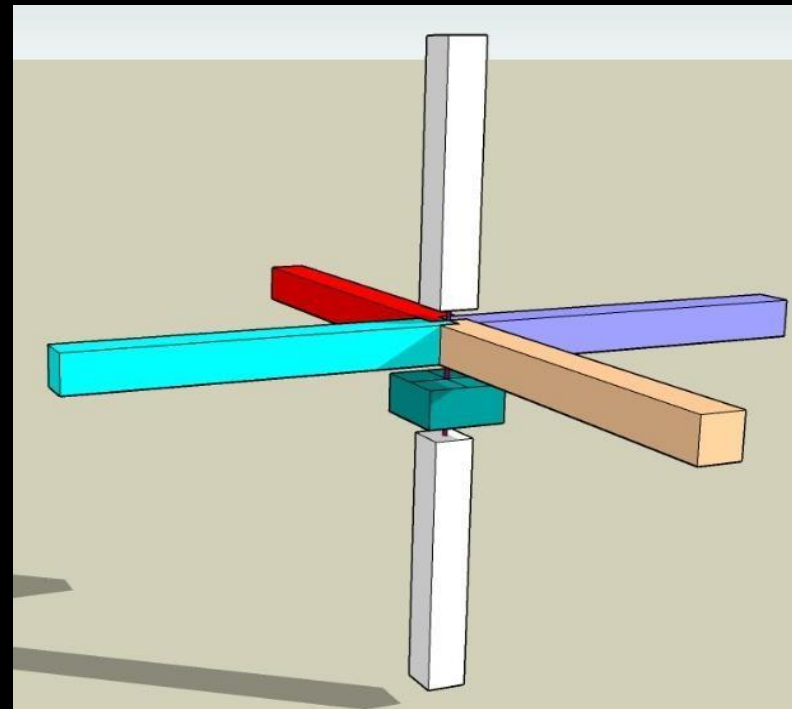
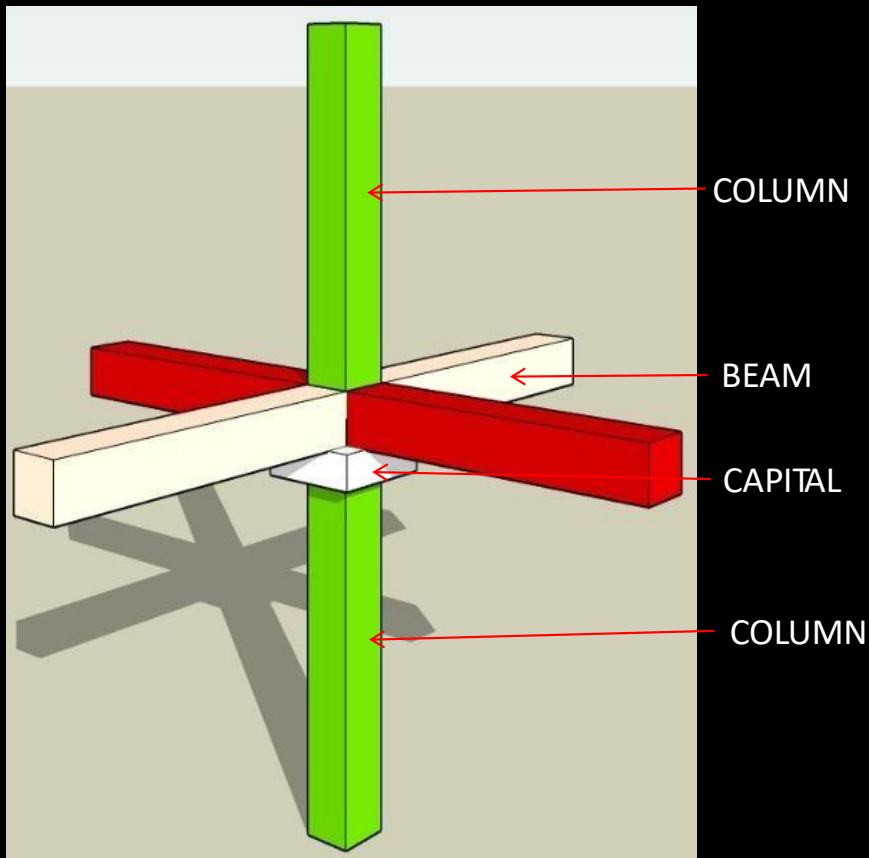
10. First Floor Stone Wall: Constructing the first floor walls using stone masonry in the desired thickness and design.

11. First Floor Capital: Similar to the ground floor, adding decorative stones atop first floor columns.

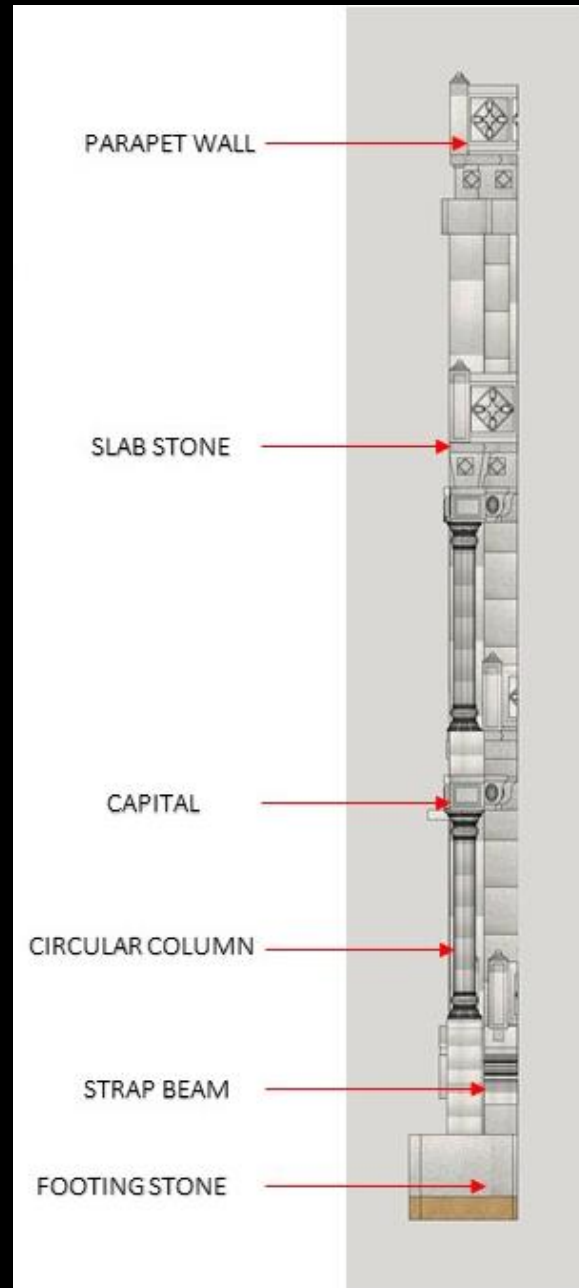
12. First Floor Roof Stone Beam: Creating a horizontal beam on the first floor to support the roof.

13. First Floor Stone Slab: Laying individual stone slabs as the first floor ceiling or roof.





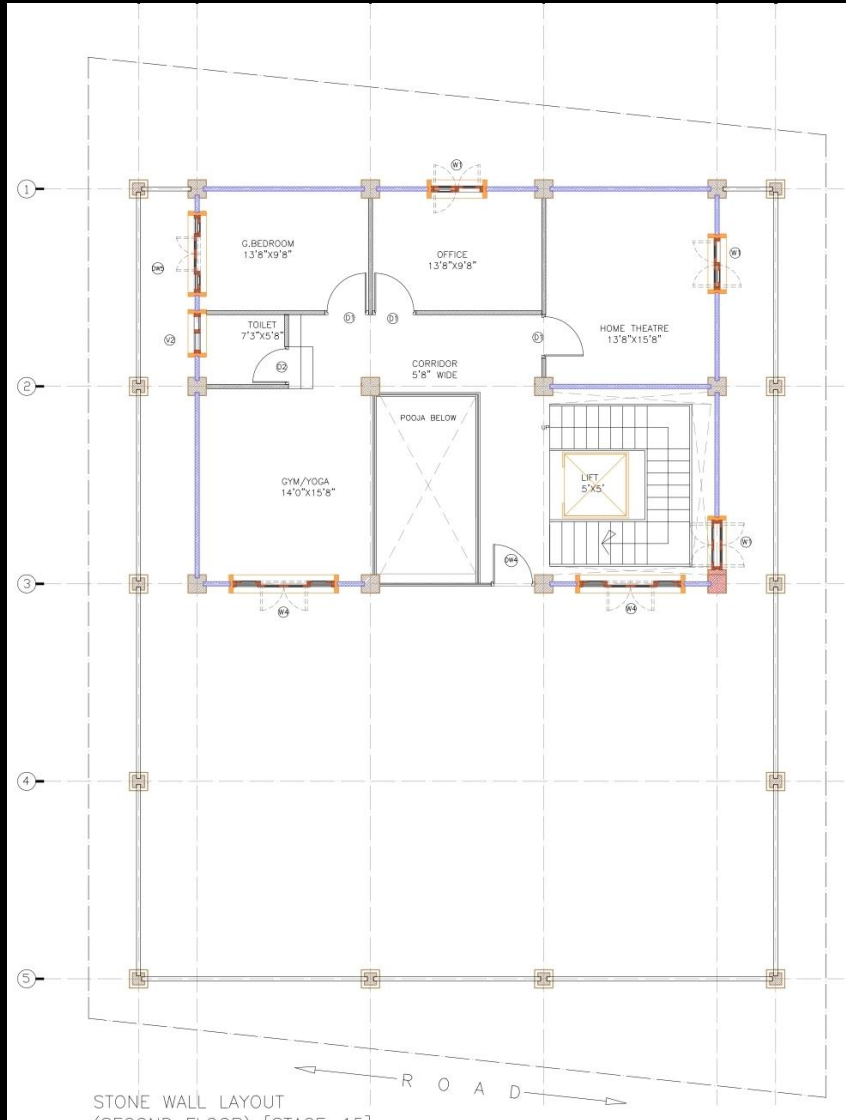
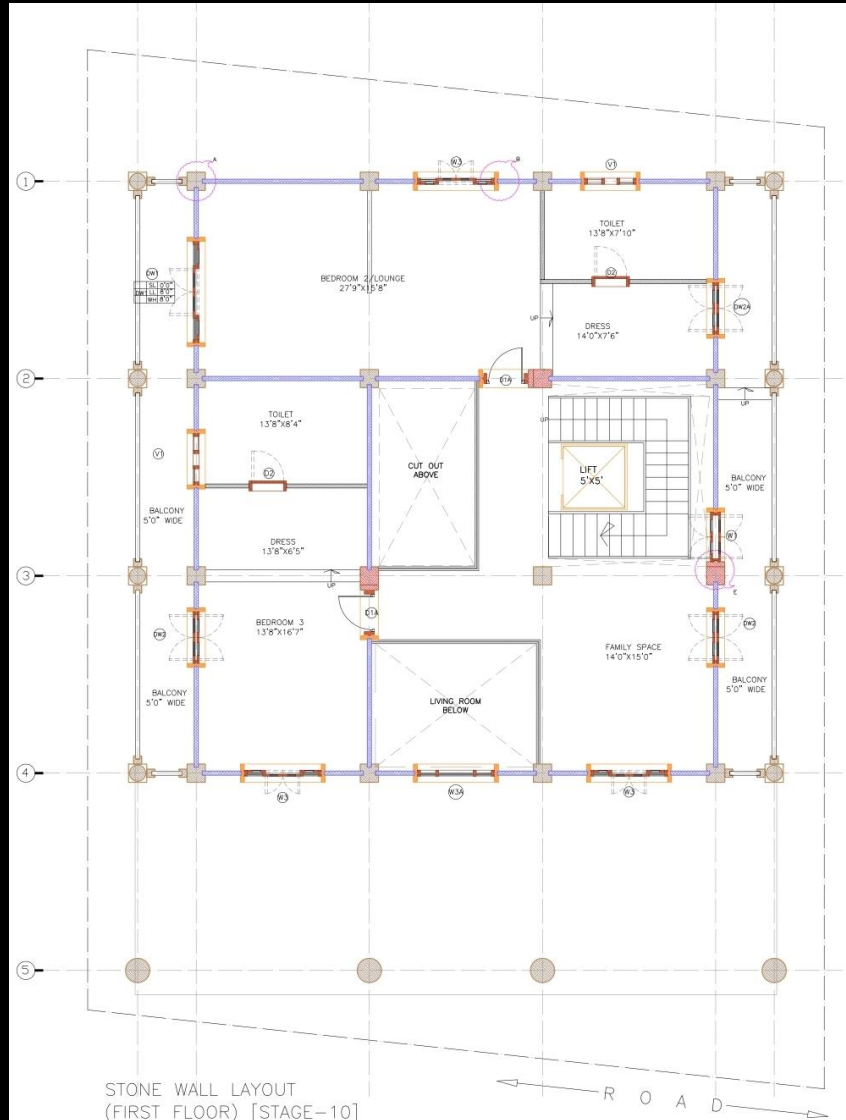
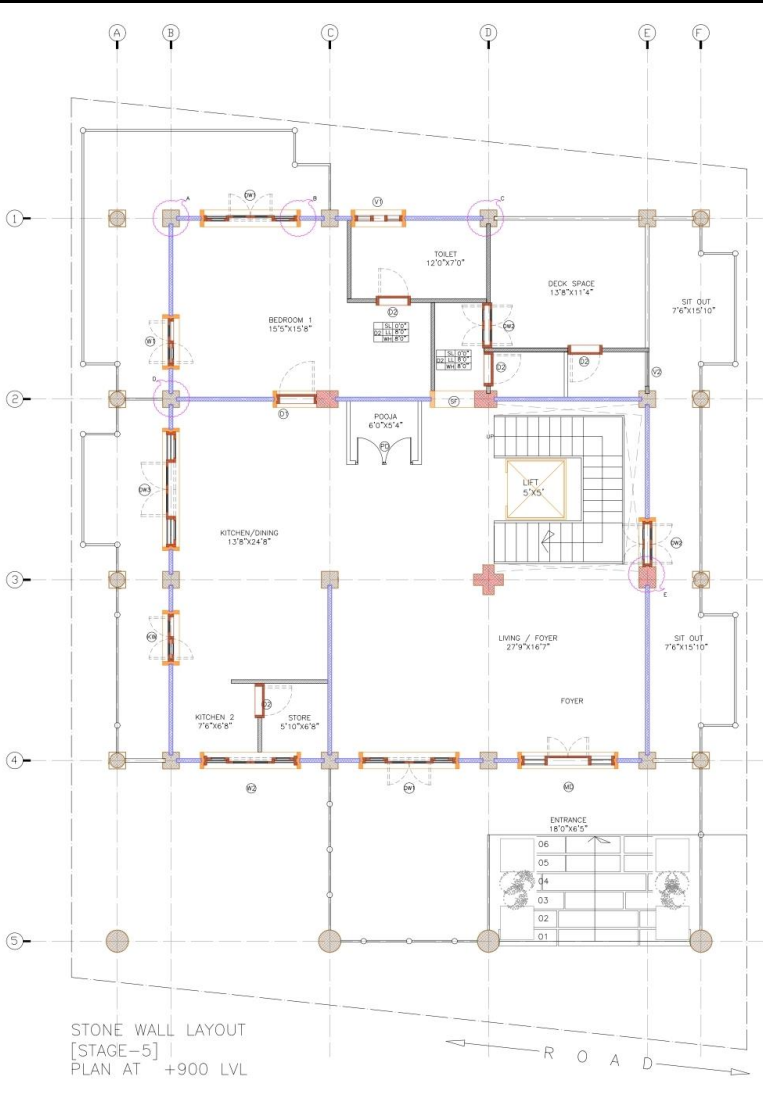
DETAIL AT BEAM, COLUMN AND CAPITAL JUNCTION



- First-floor columns typically **rest directly on top** of ground-floor capitals, creating a **continuous load path**.

- Column size may remain **constant** or **taper** upwards based on design and load requirements.

- The **load from the first floor** is transferred **down through the capital** to the ground floor foundation. This stacked arrangement ensures **efficient load transfer** and **structural integrity** throughout the building.



Belgauri is designed by reinterpreting the monumental scale of building like in the ancient times with the provision of a striking entrance, symmetrical design, and courtyard concept.

The cut-outs and double heights provided inside the structure prove as a playful element to elevate the spatial quality of the building.



NORTH ELEVATION

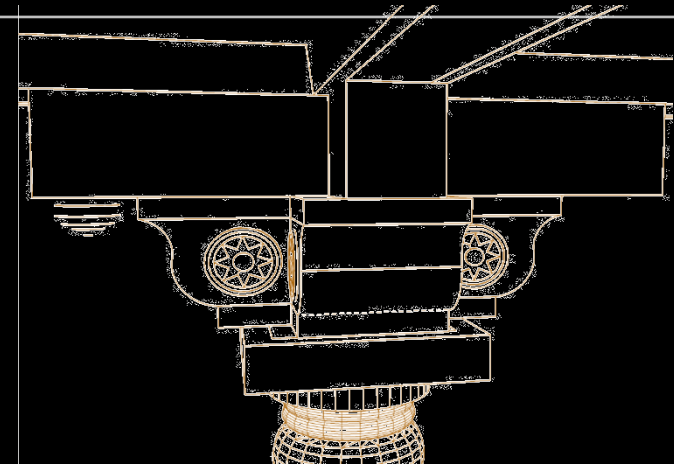


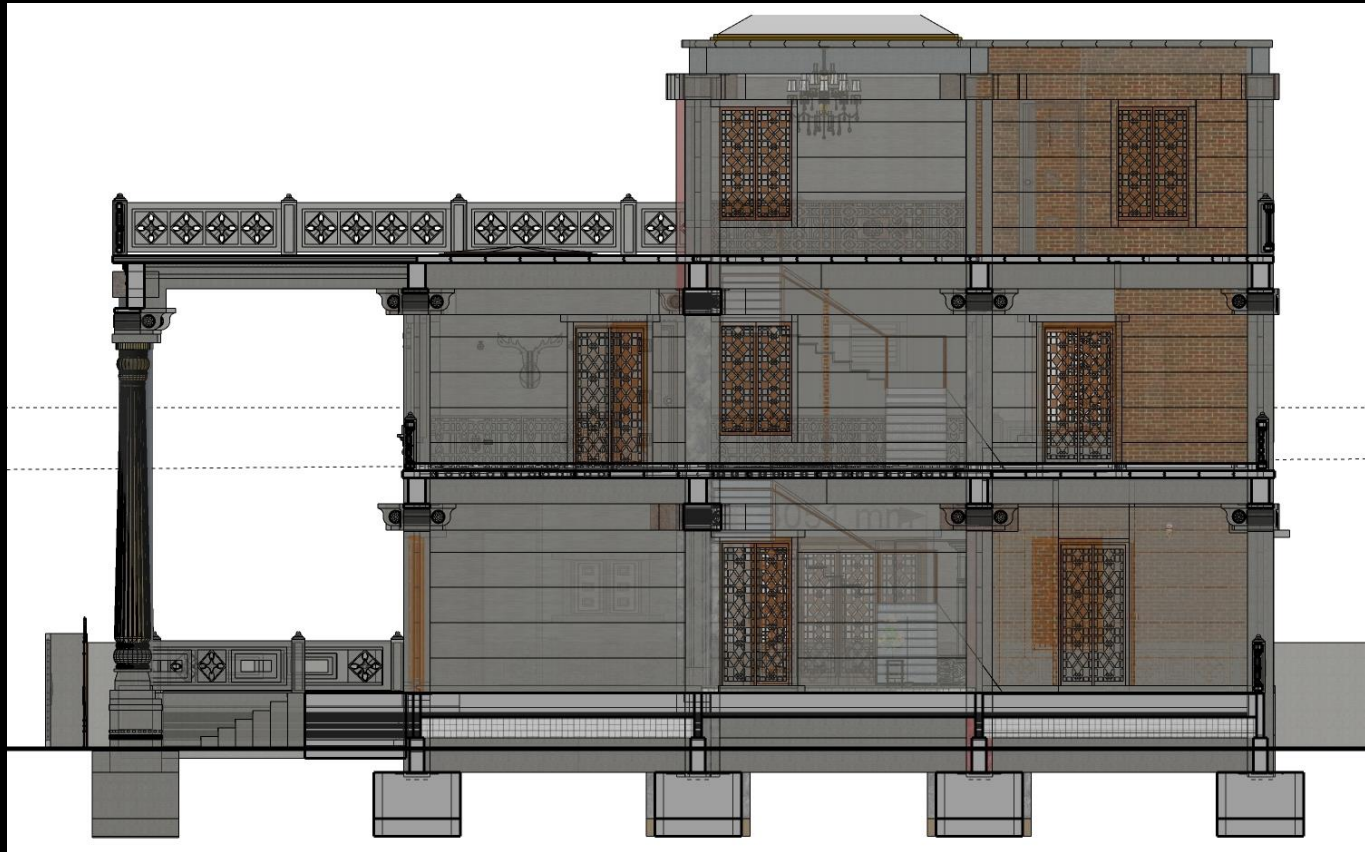
SOUTH ELEVATION

In addition to lighting, texture plays a very important role in enhancing the experience of a place.

Stone has a unique texture and can be used to enhance the experience by providing lighting.

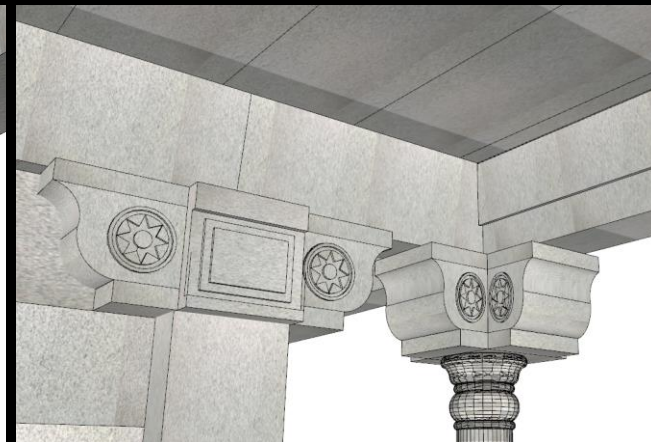
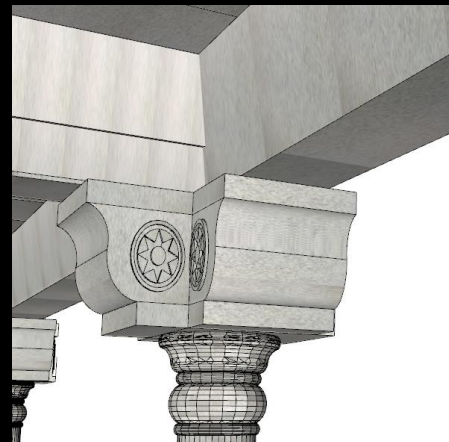
Stone has a unique characteristic in reflecting sunlight. The lighting plays a major role in highlighting the stone and its characters.





The house has an open plan of an entrance foyer, dining overlooking a large courtyard and a living area, four private bedrooms, common areas, and gym area all connected visually through the double height spaces.

An isolated office space is provided on the second floor creates a formal nook for a dignified yet cozy space for working.



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•Impact & Scalability:

- Locally: Inspire greener practices, reduce carbon footprint.
- Globally: Address housing needs, mitigate urbanization's impact.

•Innovation & Collaboration:

- Advance materials, techniques, create affordable & sustainable solutions.

•Community Participation & Feedback:

- Homeowners, architects, policymakers share insights, improve future development.
- Open communication builds collaboration, shared responsibility for a sustainable future.

•Outlook:

- Bright & promising, positive impact, innovation, collaboration on local & global scales.
- Sustainable building practices pave the way for a resilient, equitable, and sustainable housing future.



Embrace Timeless Harmony, Evolving Interiors:

Experience Sustainable Stone Homes

Imagine stepping into a home where ancient artistry whispers tales of nature's embrace, seamlessly intertwined with the ever-evolving landscape of modern design.

This is the essence of our **Sustainable Stone Homes**, where the soul of tradition provides a foundation for your ever-changing desires.

Exterior Majesty:

From the moment you arrive, be captivated by the **majestic facade** sculpted from natural stone.

Picture rugged textures bathed in sunlight, echoing the enduring strength and wisdom of generations past.

But know this: while the stone whispers of permanence, it also offers adaptability.

With careful planning and innovative techniques, the **exterior can be modified to accommodate future aesthetic preferences**, ensuring your home continues to reflect your evolving tastes.





Interior Delight:

Step inside and prepare to be surprised. While the exterior whispers antiquity, the interior is a canvas for your **ever-evolving design vision**.

Imagine **sleek lines, contemporary furnishings, and cutting-edge technology** seamlessly integrated into the natural stone walls.

This is where modern comfort takes center stage, ensuring your life is as stylish as it is sustainable.





The Perfect Blend:

Our homes are built on the philosophy that **sustainability and modern living can evolve together**. You deserve a home that reflects your individual style while respecting the environment. With **Sustainable Stone Homes**, you enjoy the **best of both worlds**:

- Timeless beauty:** The natural stone exterior exudes an aura of permanence and tradition.
- Ever-evolving interiors:** Customize your space to reflect your changing style and needs.



The pros of building a stone house far outweigh its cons though. Stone may be pricey upon construction, but if you look at its maintenance cost and life span, it will significantly be economical.

In today's world where sustainability has become a dire necessity, a stone house is a step towards preserving energy and the Earth's resources.

On both counts, a stone house is definitely a wise investment!

Our stone houses never have to be re-painted or maintained.

Our "BELGUDI" house - after 100 years of old, but looks as good today,
as it was done 7 years ago

THANK YOU..

