

Subject: Vernacular

Topic: Intro

Presented by: Mahesh Rawat

Indian Habitat

- A place where a living thing lives is its habitat.
- It is a place where it can find food, shelter, protection and mates for reproduction.
- It is the natural environment in which an organism lives, or the physical environment that surrounds a species population.

**VERNACULAR
ARCHITECTURE**

Vernacular Architecture

“The built vernacular heritage is the fundamental expression of the culture of a community, of its relationship with its territory and, at the same time, the worlds cultural diversity. Vernacular building is the traditional and natural process by which communities house themselves. It is a process that includes constant adaptation to meet the changing needs of every generation, society and environment.”

Source: ICOMOS Charter for Built Vernacular Heritage(1999)

Vernacular Architecture Values and its Significance

- Meaning for its users
- Local wisdom and traditional knowledge
- Socio-Cultural Value
- Ecological Value / Sustainable
- Cost-Effective

Socio – Cultural Aspect

Vernacular Architecture is for the Masses, by the Masses and of the Masses.

“Vernacular Architecture is a **True Soul of the Society**” – K.T. Ravindran

Vernacular Architecture is the **mirror of the culture** of the society.

Social Fabric & physical fabric are very much similar to each other and they both compliment each other.

Eg: **Banaras Ghats**

Physical structure i.e ghats (steps) represents the Culture of morning holy dip, prayers



2. Porch

Guest is considered like God, so they had to be welcomed

Therefore porch was constructed to provide shade and comfort .

Today many of us are practicing Vernacular Expressionism and not the Vernacular Architecture.



Today many of us are practicing Vernacular Expressionism and not the Vernacular Architecture

Ecological Aspect

The relationship between man and nature is reflective of a number of geographic factors like **topography, climate, soil, water and vegetation.**

These factors determine the availability of **local material, orientation of buildings, among various other aspects and also at times serve to be design determinants for the development of settlements.**

Eg: the availability or scarcity of water developed a new typology of architecture such as baoli and step well.

The imaginative use of locally available building material in a way to provide shelter from climate transcends itself into the vernacular architecture of the region.

NORTH INDIA



CENTRAL INDIA



NORTH EAST INDIA



WEST INDIA



EAST INDIA



SOUTH INDIA



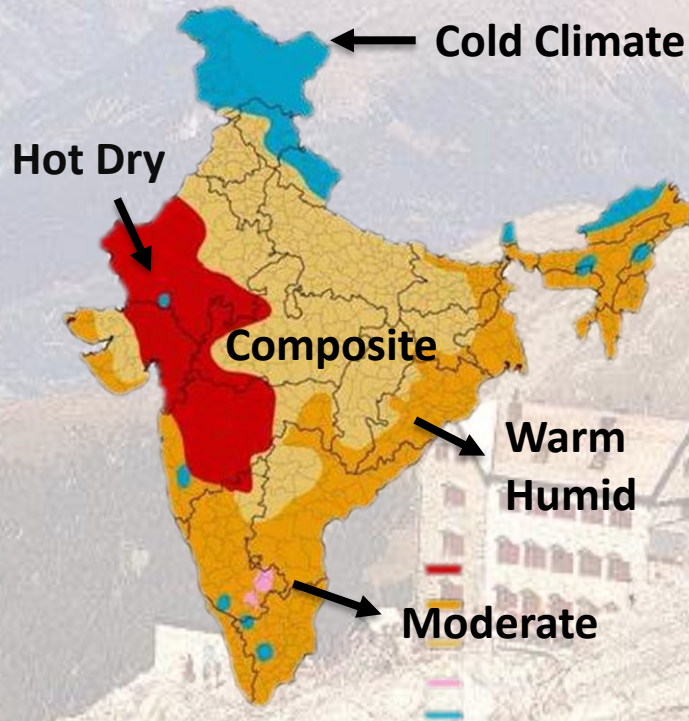
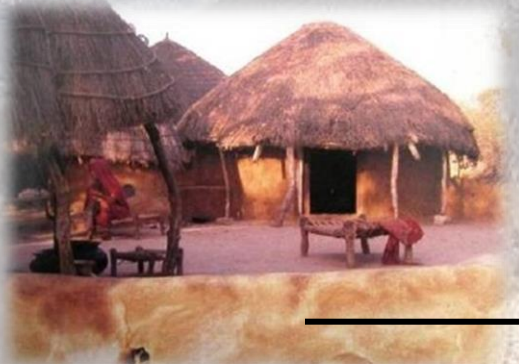
VERNACULAR ARCHITECTURE

HOT DRY CLIMATE

- ❑ This zone lies in western and central part of India, jaisalmer, jodhpur, etc.
- ❑ usually flat, sandy, rocky ground
- ❑ Water level is very low here.



Mud huts in Rajasthan



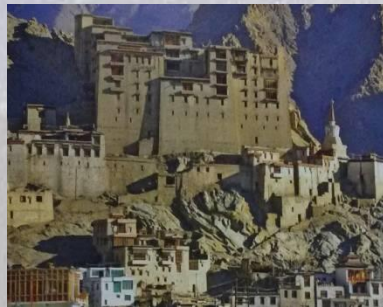
Houses are made using twigs, mud, clay, stone.

SUSTAINABILITY A TRADITIONAL CONCEPT...

- Architecture without architects.
- Man has created an environment which is in direct response to the climate , available materials and the functions of the society.
- Cultural landscapes.
- Historical settlements are eloquent of traditional wisdom.
- Traditional towns in India have developed as a response to climate, topography , culture and natural resources.



The design of traditional cities as a response to climate.



Clay and Stone House-NEPAL.



IGLOO – Inuit tribe
Antarctica

Closely placed dwellings in arid region.



TODA Tribe hut.
Straw Jungle Hut (Barrock)-
AMAZON
Contemporary dwelling based
on Vernacular principles.



INDIAN EXAMPLES

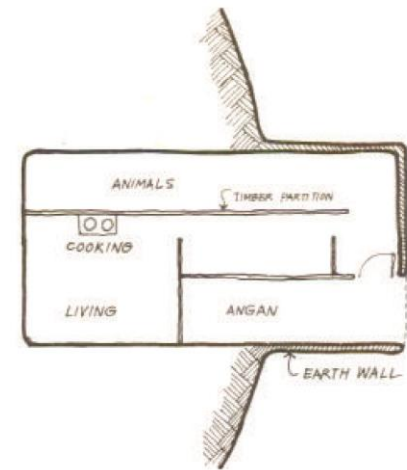
Dhaji-Diwari Buildings of Kashmir



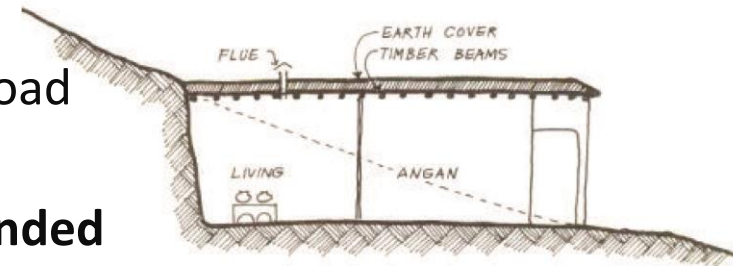
Mud and stone infill ; Dhaji-dewari technology

- Earthquake-resistance in their traditional construction
- Materials are locally available
- The basic elements in these buildings are the load bearing masonry piers and
- **The infill materials are usually abode bricks bonded with mud mortar.**
- Wooden tie-bands at each floor level.
- The foundation consists of rubble masonry with lime mortar whereas, mud mortar is used for the rest of the structure.

Gujjar (shepherd) house of Kashmir Valley



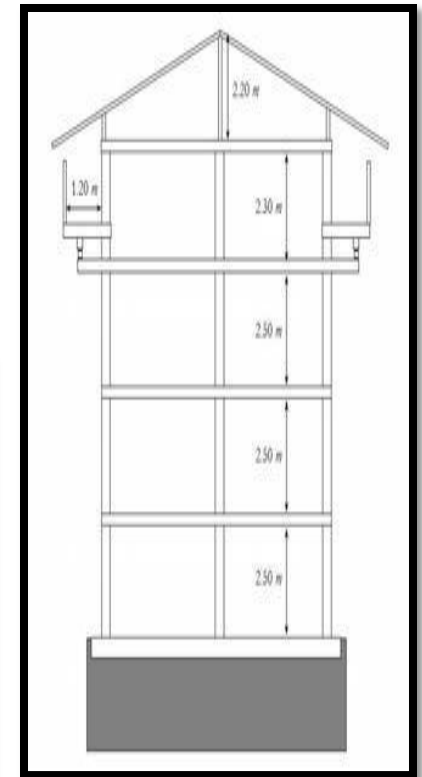
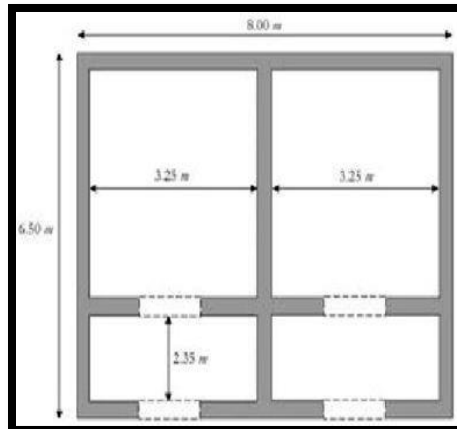
- Earthquake-resistance
- Materials are locally available
- The basic elements in these buildings are the load bearing masonry piers and
- **The infill materials are usually abode bricks bonded with mud mortar.**
- Wooden tie-bands at each floor level.
- The foundation consists of rubble masonry with lime mortar whereas, mud mortar is used for the rest of the structure.



Koti Banal Architecture of Uttarakhand and Himachal Pradesh

1. General Information

- Buildings of this construction type can be found in in the northern part of the state Uttarakhand and the southern part of the state Himachal Pradesh in Northern India.
- This construction type has been in practice for more than 200 years.



Detailing of the foundation platform made of dry-packed dressed stones

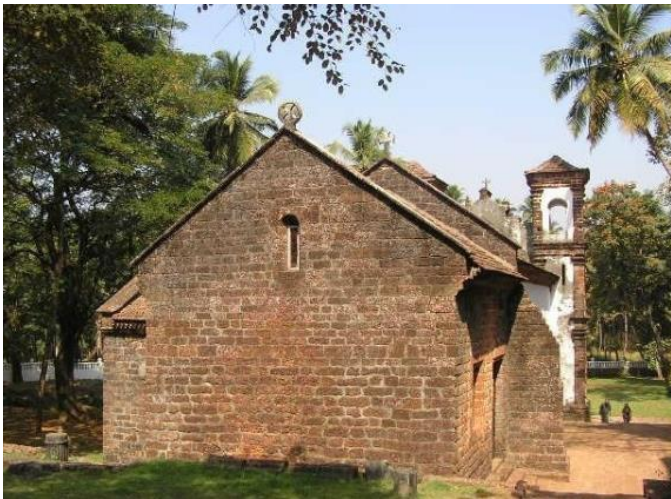
The Padmanabhapuram palace, Kerala



- This is representative of the local architectural style in Kerala.
- It is well suited to the climate with multiple courtyards to allow air movement across the complex.
- It is designed and built to be durable as well as maintenance-free.
- Flooring was done using a mixture of different materials like burnt coconut shells, egg whites, plant juices etc.
- The glare has been cut through meticulous fenestration detailing - louvers are provided



Residence , Goa



A modest Goan home in laterite; plastered with earth

- Laterite structures in Goa and around.
- These modest structures are usually plastered in lime or a mix of lime and earth or even left unplastered with huge sloping roof overhangs.
- They generally have sloping roofs to combat the rain and the strong sun.
- When the house gets dilapidated it literally crumbles down to earth and brings the building materials back to their organic and natural state, “completing the loop”
- The wood used is often the local jackfruit wood

The “Warli” home, Maharashtra



- It is built by the local residents; with “karvi” walls using local materials i.e mud plaster on a framework of branches.
- It is climate responsive; it has a light external envelope which loses heat quickly and allows air movement, in this hot and humid climate.
- This is a live tradition in Maharashtra.

Bhunga ,Thar Desert, Rajasthan



- It can even withstand earthquakes
- The circular form ensures minimum exposure to the external elements which are extreme; a hot and dry desert climate.
- They are all built around open courtyard like spaces forming clusters
- Smaller openings control entry of light, heat and winds
- The building materials are mud for the walls and thatch for the roof.