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Number of Research paper published per teacher in the Journals notified on UGC care list during the last five years

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3.3.2 Number of Research paper published per teacher in the Journals notified on UGC care list during the last five years

2022-2023

Sr. No.	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN Number	Link to the recognition in UGC enlistment of the journal/ digital object identifier number	
						Link to website of the journal	Link to arcticle/paper/abstract of the arcticle
1	Ar. A. Sonpitale	B.Arch.	Wardha blocks: A Revolutionary Material for Composite Regions	2023	Proceeding		Conference2023@sbpatilarchitecture.com

2021-2022

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						Link to website of the journal	Link to arcticle/paper/abstract of the arcticle
1	Ar. A. Sonpitale	B.Arch.	"Study of traditional occupation of Vadar community with new Transform"	2022	978-93-92774-00-3		

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2018-2019

Sr.No.	Name of the author/s	Department of the teacher	Name of Conference	Year of Publication	ISBN Number	Link to the recognition in UGC enlistment of the journal/ digital object identifier number	
						Link to website of the journal	Link to arcticle/paper/abstract of the arcticle
1	Ar. A. Bhagat	B.Arch.	Study Of Laterite Stone as Building Material in warm and Humid climate of Konkan	2019	978-93-87793-80-4		

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Architect - Academician Nagpur


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PREAMBLE

The built environment around us is fast changing and becoming a multidisciplinary effort. Architects must work collaboratively with other allied professions, such as engineers, environmental professionals, conservationists, IT professionals, procurement specialists, landscape designers, etc.

In addition, the future of the built environment is moving towards smart cities, which is changing the scope of the architecture profession.

The feedback from all these professionals should inform the architectural pedagogy. This conference attempts to bring together these diverse streams of professionals and their accumulated knowledge to inform the future of architecture education and research.

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Extended Last Date – 26th MARCH 2023

Call for PAPERS / POSTER presentation: Submissions of abstract are invited on any of the given themes and related areas. The **abstract should not exceed 250 words**. The **Font name**: Times new roman; **Font size**: 12; **Line spacing**: 1.5; **Margin**: 1" on all sides on A4 paper. **Keywords**: 3-5 should be given below the abstract in italic. The abstract should be sent in MS word format to the following email id: **conference2023@sbpatilarchitecture.com**

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Study of multisensory aspect through Practical Approach

on the streets of Pune

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Abstract

Architecture plays an important role in shaping the human life. Architecture cannot be experience without human involvement. A person's experience is evoked when 5 senses are involved. Thus while designing understanding of these 5 senses (sight, smell, taste, touch and hearing) is a must. But now a day's architecture is appreciated though sight only. Thus other senses are overlooked, giving architecture an incomplete meaning. Experiencing a space which involve senses gives an unforgettable memory about the place and situation. Hence this philosophy must be inculcated at the early stage of architecture that is 1st year students. They are naïve and enthusiastic. They have urge for learning. If this philosophy is harbored in them they could use these ideas in their design process for long run. In student's life open spaces plays an important role especially streets. Streets are used with as socio cultural aspect, for communications, gathering and casual meetings. Hence study of street with senses involved will benefit them to understand the human senses and street environment with an eye of architecture.

The aim of the study is to introduce the understanding of multisensory aspect to the first year architecture students through practical approach. This research is an applied experimental research. The study will take place on the streets of Pune. This approach will help students to understand the multisensory aspects in shaping their design and social aspects.

Key Words- Multisensory Aspect, human senses, Philosophy, Practical approach.

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PRE-ENGINEERING STRUCTURES FOR HEALTHCARE COVID 19

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Abstract: The whole world is facing disaster named Covid 19. The numbers of affected people are increasing and also the death rate due to corona virus. The people with positive symptoms need to be medically quarantined. Along with the quarantined facility a testing lab as well as the consulting lab is also needed. But the medical infrastructure is not enough to meet the increasing number of people. Now is the high time to build new infrastructure to fight against the virus. Basic consideration of healthcare infrastructure in this pandemic situation is cost effectiveness, modular construction, easy and rapid construction and mobility. Conventional way of building will be time consuming. Pre-engineered buildings are the answer to meet the demand. This reduces the time period and cost of the construction. Pre-engineered building could be built in less than half of the time as that of conventional technologies. PEB is the offsite building technology where process of planning, designing, fabricating, assembling building elements is done at the level factory. Then they are transported on the site producing high quality and custom made buildings.

Key word: *Modular construction,ConstructionTechnology, CostEffective, Rapid construction, Pre-Engineered Building, Off-site manufacturing, mobility.*

Introduction

The whole world is facing disaster named Covid 19.Our health facilities and workforce are currently inundated by a plethora of activities related to controlling the pandemic.Our country's healthcare facilities are disproportionate to the size of the population, The primary challenge is the gap between the supply and demand.

In India, the main challenges of healthcare development are the costs involved in the building and upgrade of healthcare infrastructure, now more than ever, in this pandemic situation it is imperative to explore newer alternatives to bridge the critical gaps in infrastructure, especially with respect to the availability of healthcare centres. The best way to deliver rapid treatment to covid patient is an alternative of construction like off-site building technology that ensures a fast and reliable solution.

Need of the study

There are 1,45,894 Sub Centers, 23,391 Primary Health Centers and 4,510 Community Health Centers in India as on March 2009

These figures are insufficient keeping in mind the model of 2005 National Commission on Macroeconomics and Health.

Fig 2.Source- Graph CSSEGISandData/COVID-19

Objectives

i) To identify various components of PEB construction technology.

ii) To execute required healthcare center in optimum period using PEB considering stability and serviceability.

iii) To dismantle existing PEB structure after attaining desired goal and reuse.

Pre Engineered building structures

Pre- engineered construction is the process of planning, designing, fabricating, transporting and assembling building elements at a factory rather than at the construction site. It cuts the delivery time by 50 per cent and reduces cost up to 30 per cent while producing high quality and custom built buildings.

Off-site building includes the integration of automation,

Study of multisensory aspect through Practical Approach on the streets of Pune

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Key Words- Multisensory Aspect, human senses, Philosophy, Practical approach.

Wardha blocks: A Revolutionary Material for Composite Regions

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Human have been evolving since decades. Many changes have been adopted with many priority changes. But the priority that did not change over decades are food, shelter and clothes. Shelter has been evolved from caves to high-rise structures. But this evolution has a cost to pay in terms of temperature rise and climate change. As per the Forbes report of 5 April 2022, nearly 40% emission comes from real estate. The rise in temperature is an alarming risk. This scenario is no different in rural areas. Hence to lower the temperature in houses 'Mud House technology" which has been used from ages has to be adopted. But mud house technology is not enough to meet new challenges. Therefore, Centre of Science for Villages, Wardha had developed special technique of mud wall and clay tiles roofing system to meet the modern issues. This paper aims to study the impact of Wardha block construction to control the temperature. It also investigates the temperature difference in the convention housing (concrete homes) and Mud House. The methodology adopted was the comparative analysis of both type of houses. Through this research, author intend to suggest the technology to control the rising temperature in houses. The study undergoes experimental research.

Key Word-Rising Temperature, carbon footprint, Mud houses, Appropriate technology. Rural areas.

Study of Traditional Occupation of Vadar community with new Transform

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Abstract: Vadar community is one of the oldest nomadic communities, known for their stone carving and stone work. Stone working is one of the earliest and important occupation in India. Vadars are prominent in conserving this traditional occupation. Components of house construction like door frames,Varandah seating,tulsi vrundavan,jata & pata(grinding stone), stone flooring, decorative cornices,columns are some of the products of the skillful work of this communities for so many years. But, due to urbanization and technological uplift, the stone products are losing their values and getting mere wages. The Vadar communities are migrators. But in the most recent years the people are migrating for jobs other than the stone carving and stone products. One group of this community migrated to Wardha and settled there. Some of the people try to keep this traditional work alive by making the stone carving and stone products and selling them on mere wages. Due to the awareness of historical buildings and attachment of people to history this profession got new platform to grow. Being migrators the most challenging part is to get the dwelling place, since the urban area cost so high, such people have to live in slums. They work in their dwelling place and sell the products on roads. The purpose of the study is to understand spatial requirement for conserving this traditional occupation of stone carving in the dwelling space of Vadar community.

Key words - Vadar community, traditional occupation, spatial, stone carving, conservation.

Introduction

Vadar also called as Bhovi,mati vadar,jati wadar etc. had traces originally from Orissa, their they are believed to be migrated to various parts of India. They are majorly located in Kranataka, Maharashtra and Telangana. The main occupation of this community is the traditional work which includes stone cutting, mine work, stone engraver, digging, construction etc. From ancient times they are engaged in the construction work and are known for their work in building forts and historical buildings. Since they are engaged with earth and earth excavation the name is given as 'Bhavi'. Originally the word Bhovi derived from Bhavi which means earth diggers in Kannada. The Vadar community is known for their hard work. Male and female contribute equally in social and economic activities.

The traditional work they perform demands migration hence this tribe has to migrate from one place to another as per the job requirements One of the group migrated to Wardha in search of work and got settled at Arvi Naka.High rates of real estate made them live in slums. The earning by the head of the house is inadequate hence almost all the members in the family are working. The head male of the house is doing the traditional work while the female works on daily wages. But the decline in the stone product products due to technologies and low income from it shifts the attention of the new generation towards the daily wages work.

The study shows that the people are skilled in stone work but the low product selling lead to insecurity of the earning The stone products are losing their values due to urbanization and technological uplift and getting mere wages. The migration and mere wages contribute to low standard of living. The livelihood is highly

compromised. The purpose of the study is to understand spatial requirement for conserving this traditional occupation of stone carving in the dwelling space of Vadar community. The study will try to find out the future of this traditional occupation.

Aim- To identify and enhance the sense of place, culture and occupation of Vadar Community.

Objectives –

a) To study about Vadar community
b) To study their occupation and livelihood.
c) Identification of issues for livelihood.
d) To study the spatial requirement for their occupation.
f) To study the availability of market for products and skills.

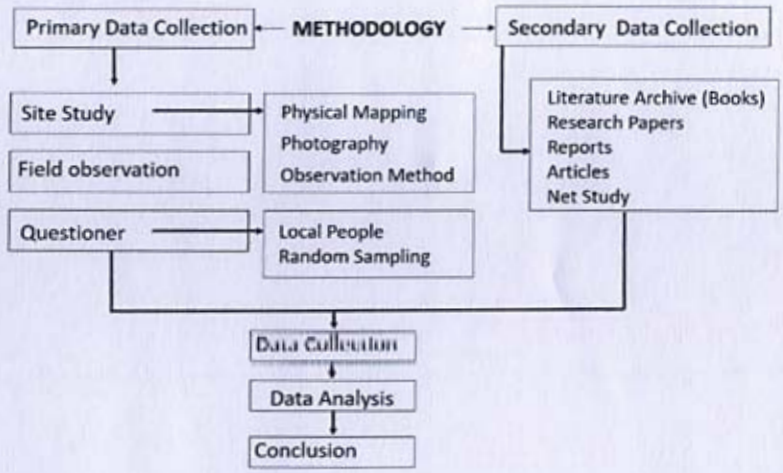
Methodology

The present study was conducted in the slum of Arvi Naka,Dist-Wardha of Maharashtra state. The study is purely based on primary data collection; the data collection has made from Vadar communities of Wardha.The slum has 20 houses of vadar. The researcher has selected 5 houses from the slum to conduct the study.The secondary data is also used to strengthen the study. The collection of secondary data is from books,articles,research papers and data available on internet.

Primary data collection

1) Interview
   The interview was scheduled in local language i.e Marathi. The family head male and female were interviewed. This interview gave the information about the personal information, traditional work, source of raw material and other occupation adopted over a period of time for survival.
2) Group discussion-
   The discussion with the Vadar community provided with vital information relevant to study.

Methodology Flow Chart



Literature Study

Vadar community is recognized by their typical profession. Stone cutting stone engraving and earth digging work. But in this 21st century the traditional profession of Vadar community is appearing to be vanished. Modern machinery and technology has replaced the role of Vadar in the society. So Vadar community has lost their work. Therefore, now days it is seen that Vadar people accept any work that is available, instead of their traditional skilled jobs. This tribe is known as Nomadic tribe but now settled at one or other places.

The study suggests that out of 500 people of vadar community 67% not doing family business only 33% are doing their traditional jobs. The income of these people vary from 1000- 15000 Monthly Income. Due to their acute poverty and nomadic way of life, the Wadars have a low social and economic status in society.The problem faced at workplace is the availability of raw material, storage and display of the finished product to sell. The set up for traditional occupation workplace is easy as most of work takes place at home in verandah or angan. Since the wages are low for stone products the vadar people opt for supportive business. Living condition is of low standard due to low income of major group in community and lack of education.Awareness about the Government opportunities is low

The Vadar community are called as **keeper for craft**. The Vadar community has contributed in construction of. From ancient period they are known for the traditional work. They have built wells to drink water, lakes and also canals. They built houses and palaces to live. They built places live temples, statues, caves, etc. to pray. They built roads, railways, pools over the rivers and lakes for communication.to make life easy of women's they built *jata, pata, khalbatta* etc. The historic places we see today is built by them. The list is never ending. Though they have such glorious history their hard work is lesser known. Restoration of historic building are taking place,vadar community skills are being used by the Archaeological Survey of India (ASI) and at UNESCO World Heritage Site as well.

Data collection - Study of Vadar slum in Wardha at Arvi Naka

Introduction to the Wardha city

India is a developing country and many regions in the country are developing rapidly in the context of industries, education, trade and agriculture. Thus giving rise to new infrastructures. In present scenario, Wardha city is powerfully emerging as an education and industrial hub in the region. From being rural vicinity decades ago it has now become the busiest emerging city in the Vidharbha region. With the development the city is also inviting the migrants in search of employment. Giving birth to slum.

Figure 1.map showing Wardha city

Figure 2.map showing location of Arvi Naka and slum

Figure 3 Slum at Arvi Naka

Location of Vadar community(slum):

- Slum is situated in prime square of city the square is known as Arvi Naka.
- It is 4 kilometer form Wardha Railway Station.
- Total area of Slum is 50,000sq.ft.
- Total population of slum is 350 and near about 100 Vadar resides in the slum

History of the slum:

- The land acquired by wadar community was once acquired by Shikh's
- In 1984, the Indira Gandhi was killed by a Sikh.
- On that background, the people around the land made them to vacant the place.
- The vacant was then acquired by Wadar, in today's date it makes more than 50 years.

Study of Individual Houses from Slum

1. House no. 1- Name: Uttam Jadhav(55) (no. of people in house- 8)

Figure 4 Location House no.1 **Figure 5** Working space outside the house in Angan and Finished product storage inside house.

Table 1. Details of traditional and other occupation of house no. 1

Origin	Traditional occupation	Other Occupation		Working of traditional occupation			
		Members	Occupation	Alone	Community	At home	Some other place
Uddir, washim Maharashtra	Stone work	Man Wife Son (1) Wife Son (2) Wife Daughter Son-in-law	Stone work garbage collection daily wages house wife daily wages house wife not working	✓		✓	
				Source of material	**Transportation**		**Medium of transport**
				Pipri (15 km from wardha)	Alone ✓		Truck Rs-2500/trip
					Community		

Table 2. Details of Space required and product selling

Space required (for stone work)		Product Selling	Market Value of the occupation
Working Raw Material Finished product	3.2 X 3 = 10 m sq. in working space 1 x 2 = 2 m sq inside the house	Door to door By cycle	•They are in great demand during 'yatra'

Area statement of the house

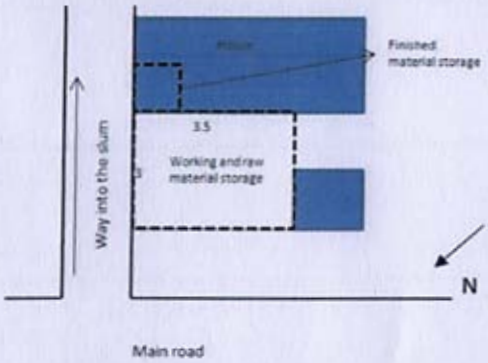


Figure 6 Area Distribution of house no.1

Table 3. Details of Earning and Remark

Earning		Remark
Stone Work	**Other Occupation**	• the new generation is not taking interest the traditional occupation due to low value of the Product • the head of the family is not leaving the stone work job because he thinks its his identity.
5-6 product a month Rs- 250-300/product 2,000 /month	a) Wife – 150/ day b) son (1)- 200/day c) son (2)- 200/day	
Total - 2000/month	Total - 16,500/month	
Family income - 18,500/month		

Source- Site analysis by Researcher

2. House no. 2- Name: Fakirdas Jadhav (no. of people in house- 7)

Figure 7 Location House no.3

Figure 8 Working space in the Verandah with finished product storage

Table 4. Details of traditional and other occupation of house no. 2

Origin	Traditional occupation	Other Occupation		Working of traditional occupation			
		Members	Occupation	Alone	Community	At home	Some other place
Parbhani Maharashtra	Stone work	Man Wife Son (1) Wife Son (2) Wife Son (3)	Stone work house wife stone work house wife stone work and daily wages house wife stone work	✓		✓	
				Source of material		**Transportation**	**Medium of transport**
				•Pipri (15 km from wardha) •Amravati		Alone ✓	Truck Rs-2500/trip If outside wardha Rs-3500/trip
						Community	

(Source : site visit)

Table 5. Details of Space required and product selling of house no. 2

Space required (for stone work)		Product Selling	Market Value of the occupation
Working Raw Material Finished product	3.2 X 2= 7m sq. in veranda no space near house some other space 1 x 2 = 2 m sq veranda	•They sell products in yatra •Door to door by cycle	•They are in great demand during 'yatra' • door to door selling gives variables

(Source : site visit)

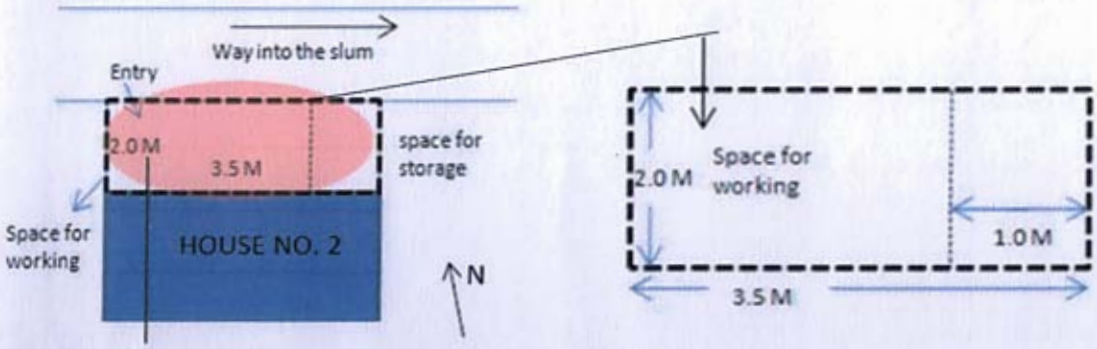


Figure 9 Area Distribution of house no.2 **Figure 9** Exploded plan showing working space

Table 6. Details of Earning and Remark

Earning		Remark
Stone Work	**Other Occupation**	• due to the involvement of more people in the occupation from same house maximum products are sold . • during 'yatra' all male members work to get max. finished products • rest of the time, other work can be opted for livelihood
10-15product a month Rs- 250-300/product 4,500 /month	a) son (2)- 200/day	
Total 1500/month	Total - 6000/month	
Family income - 10,500/month		

(Source : site visit)

House no. 3- Name- Jiram Jadhav (noof people in house- 3)

3.

Name- Jiram Jadhav (no. of people in house- 3)

Figure 10 Location of house no. 3

Figure 11 Showing raw material storage, owner of the house and the storage of finished products inside house.

Table 7. Details of traditional and other occupation of house no. 3

Origin	Traditional occupation	Other Occupation		Working of traditional occupation			
		Members	Occupation	Alone	Community	At home	Some other place
They don't know	Stone work	Man (dead) Wife Son (1) Son (2)	Stone work daily wages daily wages not working	✓		✓	
				Source of material		**Transportation**	**Medium of transport**
				•Pipri,wardha •Amravati • Nagpur		Alone ✓	Truck Rs-2500/trip If outside wardha Rs-3500/trip
						Community	

(Source : site visit)

Table 8 Details of space required and product selling of house no. 3

Space required (for stone work)		Product Selling	Market Value of the occupation
Working	2 X 2= 4m sq. in veranda	•Door to door by cycle	• door to door selling gives variables • satisfactory market value .
Raw Material	in working space		
Finished product	1 x 2 = 2 m sq inside home		

(Source : site visit)

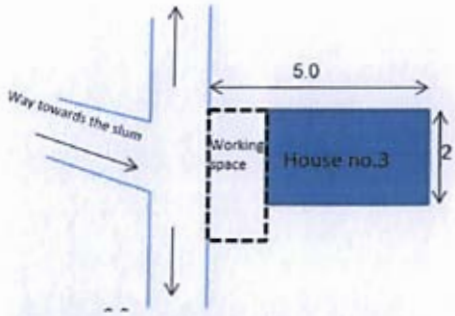


Figure 12 Area distribution of house no. 3

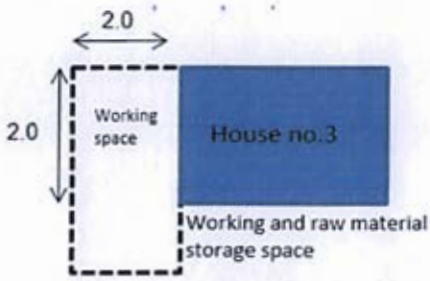


Figure 13 Exploded view showing working and storage area in plan

Table 9. Details of Earning and Remark

Earning		Remark
Stone Work	**Other Occupation**	
5-6 product a month Rs- 250-300/product 1,800 /month	Wife – 150/day son (2)- 200/day	• no involvement of the new generation in the stone work business • wife and son opted for another job for the income consistency.
Total - 1800/month	Total -10,000/month	
Family income - 12,300/month		

(Source : site visit)

4. House no. 4- Name: Ram Prasad Mule (no. of people in house- 9)

Figure 14 Location of house no. 4

Figure 15 Showing raw material storage, owner of the House working on stone and the storage of finished products

Table 10. Details of traditional and other occupation of house no. 4

PRCA BOOK OF PROCEEDINGS 2022

ISBN: 978-93-92774-00-3

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International Conference on Latest Innovation in Engineering Science and Management
Buddha Institute of Technology, GIDA, Gorakhpur (UP)
30th - 31st March 2019 www.conferenceworld.in ISBN : 978-93-87793-80-4

Study of Laterite Stone as Building Material in Warm and Humid Climate of Konkan

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Abstract:

Due to their inherent properties, completely different building materials respond otherwise to climate. The thermal properties of building materials determine the energy consumption patterns and comfort conditions in an enclosed space. Various building materials, such as locally available stones, used for construction work which we can study to understand the properties associated with materials. To know how properties will impact performance to consider the long-term effects of using a material on the environment Building material (construction material).

Keywords: Laterite stone, AAC blocks, Thermal Comfort, Konkan Region.

1. Introduction

Over the years, the use of common construction materials is widely practiced by the humans. The use of waste and recycled materials did not become common among Engineers. Also, the use of common construction materials does not provide satisfactory and desired properties in short period of time. Laterite can be a residual ferruginous rock, usually found in tropical regions and has shut genetic association with bauxite.

The term 'laterite' was originally used for very ferruginous deposits first determined in Malabar Region of coastal Kerala and different elements of state. it's an extremely worn material, made in secondary oxides of iron, aluminium or both. It is either onerous or capable of hardening on exposure to wetness and drying. Aluminous laterites and ferruginous laterite are quite common. Laterite is found in various parts of India, where it is extensively used as building material in regions of Kerala, Goa, Karnataka and Andhra Pradesh.

2.Characteristics of laterite

Laterite occurs principally as a cap over the summits of Basaltic hills and plateaus and is the characteristic feature of tropical monsoon regions. It is best developed in the Western Ghats and its foothills. Laterite stone was used as building material in Konkan for centuries. Type of weathered material which was indurated clay,
full of cavities and pores, containing large quantity of iron in the form of red and yellow ochre. It was soft when fresh and could be cut easily and when exposed, it became hard and resisted air and water much better than bricks.