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Abstract: Today, worldis in a state of environmental degradation where a thought with its step is welcome to make usage of appropriate materials and related technology/ies. Tribal is a community of people at the world's level who are contributing major in terms of appropriate materials usage and technology thereof helping in environmental protection. Gonds are the Tribals from Gadchiroli region of Vidarbha, Maharashtra belonging to central zone of India. Gond Tribals are continuing their specific type of Art, Culture and Architecture related to materials available locally along with the usage of its appropriate technology.

This paper is an attempt to study the Vidarbha's Tribal Art, Culture and Architecture in terms of appropriateness to the level of being Environment Friendly Art and Architecture.

Keyword:*Tribal Community, Resource use, Appropriate Technology, Environmental Friendly Art, Environmental Conservation.*

I. Introduction

Article 366 (25) of the Constitution of India(Constitution of India, 1950) refers to Scheduled Tribes as those communities, who are scheduled in accordance with Article 332 of the Constitution. This Article says that only those communities who have been declared as such by the President through an initial public notification or through a subsequent amending Act of Parliament will be considered to be Scheduled Tribes. There may be other tribes in India but all statistical data is available only for the scheduled tribes. The inclusion of a community as a Scheduled Tribe is an ongoing process.

India has the largest tribal population compared to any other country in the world, according to census of India 2011.(INDIA, 2011) They account for 109 millon and represent 8.6percent of the country's total population. The essential characteristics, first laid down by the Lokur Committee, for a community to be identified as Scheduled tribes are -a) indications of primitive traits; b) distinctive culture c) shyness of contact with the community at large; d) geographical isolation; and e) backwardness.

Tribal communities live in various ecological and geo-climatic conditions ranging from plains and forests to hills and inaccessible areas. Tribal groups are at different stages of social, economic and educational development.

The number of individual ethnic groups, etc. notified as Scheduled Tribes is 705. The Vidarbha region of Maharashtra state consists of 11 districts with a large tribal population. Gadchiroli (38.75%), Chandrapur (19.70%) and Yavatmal (21.37%) districts have a larger percentage of tribal population as compared to other districts. Among the major tribes in Vidarbha region, Gonds form the largest group and has its ethnically related tribes like Pardhans, Kolams having some cultural similarities. They are from the Dravidian group.(India G. o., 2013)

Fig:1 Map showing states of India highlighted state of Maharashtra



Fig2 Map of Maharashtra showing Vidarbha and other regions.

(Source: Based on https//: www.maharashtra gov.in 1128 Districts formats print)

Maharashtra is divided into six administrative divisions: Nagpur, Amravati, Aurangabad, Nashik, Konkan and Pune Division. They are commonly referred as five regions as per political sentiments as Vidarbha (Nagpur and Amravati divisions), Marathwada (Aurangabad Division), Khandesh and Northern Maharashtra Region (Nashik Division), Konkan (Konkan Division) and Paschim Maharashtra Region (Pune Division). The number of notified Scheduled Tribes is 37. The tribal population of the Maharashtra, as per 2011 census, is 10510213 constituting 9.3% of the total population of the state .

Vidarbha occupies 31.6% of total area of Maharashtra. The total population of Vidarbha is 23017332 and holds 20.38% of total population of Maharashtra. The total tribal population of Vidarbha is 3718153 constituting 16.15% of the total population of the region.

Vidarbha consists of 11 districts namely Amravati, Akola, Bhandara, Buldhana, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Washim and Yavatmal. These eleven districts with a large tribal population. Among the major tribes in this region, Gonds form the largest group and has its ethnically related tribes like Pardhans, Kolams having some cultural similarities.

Gonds are further divided into five sub tribes of Raj-Gonds, Madia-Gonds (or Maria Gonds), Dhurve Gonds, Khatulwar/Khatole Gonds and Naik Gonds. Madia Gonds (Gadchiroli District) have been notified as Primitive Tribes by the Government of India.

The total population of Gadchiroli is 1072932 and holds 3.66% of total population of Maharashtra. The total tribal population of Gadchiroli is 315306 constituting 38.7% of the total population of the district. Due to high percentage of tribes residing in the district it is termed as Tribal District.Gadchiroli consists of 12 Taluka namely Aheri, Armori, Bhamragad, Chamorshi, Desaiganj, Dhanora, Etapalli, Gadchiroli, Korchi, Kurkheda,Mulchera and Sironcha.(http://gadchiroli.gov.in accessed on, 2017)

The Major community of tribals those reside in the district are Gond, Madia Gonds, Pardhan and Kolam. They have their own languages as "Gondi, Madiya".



(India G. O.)

Total geographical area of Gadchiroli district is 13312.0 Sq.Km. Out of this area, 11693.0 Sq.Km. around 78.30 % of the land is included in the reserve or protected forest category. The eastern part of district ie, Dhanora, Etappali, Aheri and Sironcha talukas; are covered by the forest.

Hills are located in the areas of Bhamaragad, Tipagad, Palasgad and Surjagad in the district. Out of the remaining area, only 1960.0 Sq.Km. of the land is under cultivation and constitutes only 13.13 % of the total land of the district.

The predominant soil cover in the district is clay, clay-gravel, sandy loam, deep black soil, reddish & yellowish brown soils on hill slopes, brown & gray soils of plains and laterite & lateritic soil. This district is famous for Bamboo and Tendu leaves

Background

The scheduled tribes of Vidarbha have very less opportunities of income generation and shy of from urban people and urbanized society. The growth of these tribes is affected by Naxalite activities.

They have traditional knowledge and skills about utilizing the available resources affectively. They follow principles of sustainability in everyday living. Urban society may learn from these tribes the principles of sustainability in coherence with the natural habitat. Taking into consideration skill based workshops have been conducted by various NGOs and social workers. The government of Maharashtra's Tribal Research and Training Institute has been proven a successful effort towards these tribal's development crossing the barriers. Today work of social worker late Baba Amte and Magsaysay award winner for his exceptional devotion for the betterment of the Madia Gond tribes of Gadchiroli is world renowned.

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II. Art And Culture

Traditional handicrafts from locally available wood and bamboo done by the Gonds.Figure 1.2.a and 1.2.b denotes the traditional practices of the Gond tribals. The traditional value of the tribals in the Mundha pillar as a mark of marriage pillar also shows their traditional techniques with the spectacular wood carving done in the pillar. The pillar is carved out from the locally available wood in their habitat. We can term it as Vernacular architecture.



(**Fig 5** Mundha Pillar) (Sketch by: Author)



(Fig 6Picture showing the Marriage pillar in central ccourtyard) (Photographs by: Author)



(Fig 7 Wall decoration in traditional Gond tribals) (Photographs by: Author)



(Fig 8 Embark on worship of deities) (Fig 9 Tribal paintings as depicting nature in it)

((Source book: sampada))

Fig 1.3.F. Shows tribal gond paintings and are heritage today. They have a typical painting style that
cannot be seen elsewhere in the country. Apart from painting on paper, people of this tribe engage themselves in
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wall painting and floor paintings as well. These paintings serve the ritualistic purposes as well as keep the surroundings harmonious and pure.



Fig 10.(Source: (ignca.nic.in,Utsavpedia)



(Fig 11)



(Fig 12)

 $(Fig11\)\ \&\ 12:$ Picture of chairs made out of Bamboo and cane)

(Photographs by : Author)

Tribal dances, the Dhemsa and Gondi dances

The Gonds and the Kolams (and also the Pardhans) sing the Dhemsas which are rituals' songs narrating the tales about their tribe, forefathers, deities, etc. Traditionally 16 Dhemsa songs are sung and when the community celebrates.



Fig 13 Gondi dance (source book : sampada)

A festival, they dance and sing the songs. In the hindu month of poush, on a full moon day the ritual is performed. All the men and women dance for pleasing god 'Persapen'. The Dhols of big size are the main instruments for this dance. One person who is the leader of this dancing group takes the initiative and holds a flag at the loft of a long stick. Two Dhol beaters beat the Dhol with sticks. The movements and footsteps are very soft and rhythmic.

The men and women put on typical dresses. The women wear saree up to the knees and keep the part above the waist (bosom) uncovered. They put on profuse silver ornaments and flowers and ribbons on head. Musical bells are put on , around the feet , i.e. in the form of anklet, around the waist , etc. The men – folk put on a loin cloth or a short dhoti and take gonde (Tassels) in their hands. The chief dancer puts on a crown of peacock feathers on his head, has musical bells around his waist and garlands of flower around the neck. The rhythmic movement of the hands and feet of all the dancers are most thrilling. Duff, a typical type of instrument

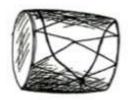


Fig. 14 Dhol

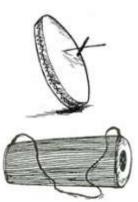
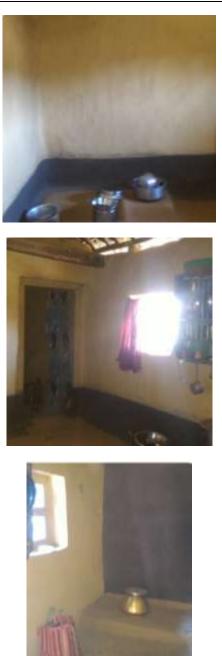


Fig.15 Duff/Daf Fig.16 Pagai

(Source: Tribal dance and songs ,))by(S G Deogaonkar, Jan 2008)

Kingri, a typical instrument simulating violin is used by the Gonds and Kolams but particularly by the Pardhans who are called the minstrels on the Gonds. The Pardhans who plays a Thoti. He sings the songs about their forefathers while playing on this instrument.

Wind instruments like blowpipe or its modifications may also be added at the time of dance. The Relaa s s dance of the Madia-Gonds is also very famous.



(Fig2.1,2.25,2.3: pic showing internal view of houses made in mud and bamboo and construction of space for utensils)

(Photographs by: Author)

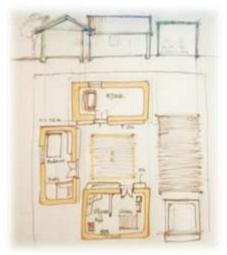
Lifestyle of the Gond Tribals

This tribe is classified as primitive tribe category. They still lead primitive way of life. People belonging to this are mainly dependent for their day-to-day needs such as firewood, small timbers, grass etc. On the forest. They are mainly organized into small villages.

A chief heads the tribe, and a committee of elders leads each village. The chief serves as a judge of all tribal disputes, while the elders have legal authority over their villages. Gond kingship is patriarchal and line of descent traced patrilineally.



Fig.17 Madia Gond tribes, Gadchiroli (INTERNET)



(Fig. 18 housing type 2)



Fig.19.Madia Gond tribes,Mendha Lekha,Gadchiroli) Source:https://gadchiroli.gov.in/culture-heritage/) (Photographs by : Author)

Gond survived by farming, hunting, and eating the fruits of the grove, but they also trade and sell cattle. Others hold wage-earnings jobs. They do not make their own clothing or jewels but buy from neighboring groups.

The gonds does not marry with their own clans and cross-cousin marriages are prefers as are multiple spouses.

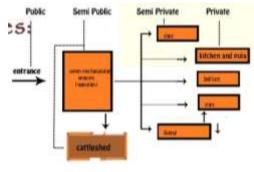
Occupations:

This tribe is also identified as the Hill tribe. Naturally their main occupation included grazingand hunting and it is still practiced in the settlement areas of rural parts of Vidarbha region.

Other main occupations of the Gonds of Vidarbha

- Rainfed Agriculture (mainstay),
- Collection of non-timber forest produce
- Collection of Tendu leaves mostly found the habitat of forests.

Housingplanning and it's designs, Construction Materials&technologies and it's practices.





Typical housing patterns of the Gonds in Gadchiroli , Mendha Lekha, Dhanora, Gadchiroli, Maharashtra. Typical Spatial analysis of houses in Mendha Lekha

Ghotul

Ghotul is a typical space to gather the people of the village, purposefully for the main head of the village to take out decisions with the people. Another purpose is to have cultural folk dances and events which is a peculiar dance form of the Gond tribals specially the Madias. At a big dance the trained band occupies the inner ring round the fire, while the common folk men and maids in separate rings move round in great circles in opposite ways. All are dressed for the occasion in their best, bearing in their hands, weird ornaments of

wicker work, with garlands of flowers. A madia dance is a spectacular dance in the Ghotul.

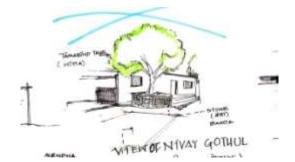


Fig.21.(Fig21. Is picture of Ghotul in Mendha

(Photographs by : Author)

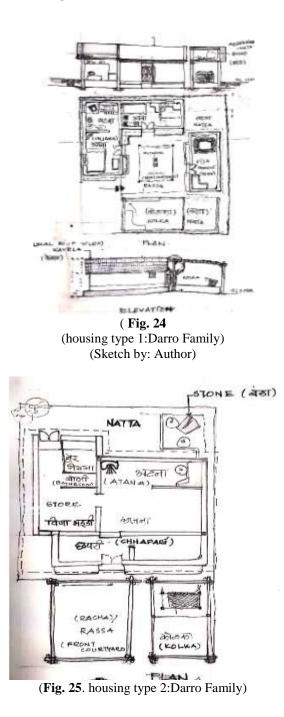


, Fig.22social activist Mohan Hirabai Hira with discussing with gram panchayat people



(Fig. 23 sketch of Ghotul in Mendha)

(Sketch by: Author)



(Sketch by: Author)

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(Fig. 26(housing sketch : women working in kitchen)

(Sketch by: Author)

The photographs of the traditional wall designs and roof constructions depict the tribals's close connectivity with nature. The floral designs are seen in the windows of the buildings.

The roof are constructed from the locally available wood and bamboo in their vicinity. The clay tiles are used as roofing patterns and being constructed in mud.



(Fig 27. Wall design in traditional Gond tribals) (Photographs by: Author)



(Fig 28.Roof patterns in traditional Gond tribals) (Photographs by: Author)

The local people of Mendha Lekha Gram panchayat still utilize the appropriate technology in their constructions. Use of mud platforms is made to keep in utensils and ease for the chulhas i.e stove for cooking.



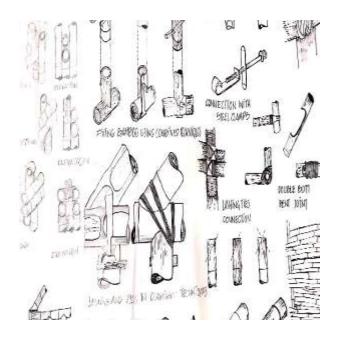
Fig29(picture of space for cattle of in Mendha Lekha) (Photographs by: Author)



(Sketch by: Author)

(Fig 30 sketch of housing lifestyle of tribals)

Bamboo construction and joinery details



 $\label{eq:Fig.31.Sketches of typical joinery details made out of Bamboo and cane) (Sketch by: Author)$



Fig.32.



Fig.33



Fig.34

(Fig 32,33,34: Sketches of typical joinery details made out of Bamboo and cane) (Sketch by: Author)

III. Conclusion:

The art and architecture of Gond Tribals is endogenous. Their rituals and practices continued by them follow biodiversity in nature. The use of local materials for construction and practices used for daily livelihood are environment friendly. Today, these tribals are in the list of endangered species especially in Gadchiroli due to Naxal activities. A need has to be observed to embark on these heritage tribe and their art and cultural traditional activities to sustain with nature.

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