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## **What Signifies a Hindu in Bali**

RAJAT KANTI DAS

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Archaeological evidences suggest that Bali has been inhabited for a long time and its history or pre-history may be traced back to the Stone Age Culture. Sambiran, a village in northern Bali, was believed to be the home of the New Stone Age people, proven by the discovery of stone axes and adzes. Further discoveries of more sophisticated stone tools, use of agricultural techniques and early pottery at Cekik in Bali's far west, confirm the existence of Neolithic people in this region. At Cekik, there is evidence of human settlement together with burial sites of a group of people. This mode of burial continued from the Neolithic to the Bronze Age. However, the prehistoric Bali cannot be seen separately from the larger Indonesia with which it has much in common and with which it has a shared history. Trade was introduced into Bali as early as 200 B.C. Metal inscriptions, considered as Bali's earliest written records from the ninth century A.D. onwards, show a significant Buddhist and Hindu influence, especially on the statues, bronze made objects and rock-cut caves around Guneng Kawi and Goa Gajah. There are some questions that emerge out of these discoveries. Was there any form of competition between Buddhism and Hinduism to gain ascendancy in Bali? Or was it a peaceful co-existence between the two? When exactly Hinduism was first introduced in Bali, as the general understanding was that it was introduced during King's time? How is it that there are not many Buddhists, compared to Hindus, in Bali today? Ties with neighbouring Java were established through kingdoms, quite a number of which used to function in the islands and the whole of South East Asia during early periods of history. A glance through Bali's early history reveals that Bali was conquered by Kertanegara, the ruler of Singasari, in 1284 A.D. With the turn of the century, Bali had its own ruler in the form of King Bedaulu of Pejang, lying east of Ubud. In 1343 A.D. the whole island was conquered by East Java under the mighty Hindu Majapahit Kingdom. This resulted in massive changes in Balinese society, marked by stratification and status hierarchy, which were the dominant features of the caste-based Hindu society. It was reported that the Balinese who did not embrace the changes fled to the isolated mountainous areas. Their descendants are known today as the "Bali Aga" or "Bali Mula", meaning the original Balinese. They may still be traced in villages like Tenganan near Candi Dasa and Trunyan on the shores of Lake Batur. But how far they are still able to maintain their ancient laws and traditional ways of living could not immediately be known. When Majapahit in East Java fell in 1515, the many small Islamic kingdoms in the island merged into the Islamic Mataram Empire. The most dedicated of

Majapahit's Hindu priests, craftsmen, soldiers, nobles, artisans and artists fled east to Bali and flooded the island with Javanese culture mingled with Hindu practices, only remnants of which may be found in Java today. Considering the huge influence and power of Islam, it is worth pondering why and how Bali could still remain strongly Hindu.

Can the term "Hindu" be taken as a designation for Bali's religious identity distinguishing it from the "Islam of the surrounding islands"? Records reveal that the concept of "Hinduism" as a religion really came only in the eighteenth century when Europeans started using it in the context of huge diversity of interconnected traditions in India. Amongst the Balinese people themselves, the term was not much known until the Dutch arrived in the early twentieth century. During pre-Dutch period, such terms as "Agama Siwa", "Agama Buda" were often used to refer to "Shiva Religion" or "Buddha Religion", depending on the strain of priesthood in focus. The term "Agama Bali" referring to "Balinese Religion" was frequently used like "Agama Jawa" or "Javanese Religion". Again, the phrase "Hindu-Bali" commonly used by the European authorities has not found much favour with the Balinese. They rather prefer to be called as "Bali-Hindu" or "Balinese Hindu". Obviously, there is a difference between the two, particularly in emphasis. It may be noted here that among Indonesia's five officially sanctioned faiths the Balinese religion in the form of Bali Hindu's faith does find a place. There has been a perceptive realisation that in the contemporary situation the notion of "Hindu Bali" has much to do with artificially representing Bali's classical past, particularly in the form of its "traditional culture", before the representatives of world community who mainly visit the island as tourists. Attempts have also been made to project Balinese culture as a component of the composite Indonesian culture at the national level. From the national perspective, political leaders and national heroes are as important as the gods, goddesses and mythological figures are. In street corners, street junctions and public places, national and political leaders compete with religious and mythological figures for a space. Clifford Geertz (1973) has given his own explanation for Bali's deep attachment to Hinduism, which still merits consideration, though not without question. He writes, "...Christian missionaries have never made much progress on the island and, connected as they are with the discredited colonial regime, their chances would now seem poorer than ever. Nor are the Balinese likely to become Muslims in large numbers, despite the general Islamism of Indonesia. They are, as a people, intensely conscious and painfully proud of being a Hindu island in a Muslim sea, and their attitude toward Islam is that of the duchess to the bug. To become either Christian or Muslim would be tantamount, in their eyes, to ceasing to be Balinese, and, indeed, an occasional individual who is converted is still considered, even by the most tolerant and sophisticated, to have abandoned not just Balinese religion but Bali, and perhaps reason, itself. Both Christianity and Islam may influence further religious developments on the island; but they have virtually no chance of

controlling them.” With the emergence and consolidation of the Indonesian Republic and with the inclusion of Bali as a component within it, modern education, modern governmental forms and modern political consciousness have come to the island. At this stage, Geertz’s words of caution seem no less relevant. As he observes,

“Radically improved communications have brought increased awareness of, and contact with, the outside world, and provided novel criteria against which to measure the worth both of their own culture and that of others. And inexorable internal changes – increased urbanization, growing population pressure, and so on – have made maintenance of traditional systems of social organization in unchanged form progressively more difficult.”

Already, there are signs of it. We could sense the strong feelings against the caste divisions, particularly among the young. There are boys and girls of all religions working together in hotels, shops and malls in a spirit of equal participation without compromising much with their religious identity. That they could so long retain their self-identity may be attributed to their strong sense of belonging to Bali, which, in Geertz’s words, is a reflection of a self-conscious “Bali-ism”.

That the Balinese to a large extent could protect themselves from missionaries and merchants is almost clear. The impact of Christianity and Islam on the Balinese is still marginal. It speaks of the strength of the hedonistic Balinese and their deep commitment to culture. The Balinese temples symbolise ‘cultural conservatism’ and a process of continuity. A temple is a ‘self-contained and self-renewing system’, which, like Balinese culture, will not see its end. Periodically, it would regenerate itself with every new generation workers, craftsmen and artists, who repair, replace and recreate the masterpieces done by the predecessors with new ideas. In this way, traditions are revitalised from time to time. The number of workers and engravers are constantly on the increase, suggesting that they are in great demand. As a matter of fact, in the city of Denpasar there are innumerable shops displaying stone carvings and sculptures of gods and goddesses like Shiva, Brahma, Vishnu, Saraswati, Garuda, Ganesha, Buddha, Ramayana and Mahabharata (Mahabrata) figures of Rama, Lakshmana, Hanuman, Yudhisthira, Arjuna, Bhima, Nakul, Sahadeva Sita, Draupadi and many others, which have ceremonial and decorative value as well as cultural and religious significance. To a Balinese Hindu of today, tradition holds a definite meaning and occupies a place of importance in the life process. Tradition is not something which is totally outside the purview of the modern utilitarian world. An artist’s traditional house which we visited gave an impression of an art house displaying finished and nearly finished paintings for sale. Curiously, traditional paintings done with flower paints and other traditional materials were in great demand. Family members including artist’s young sons and daughters were involved in running the show. The house, however, retained

the traditional structure with a specific place for family worship, traditionally designed rooms and doorways. Our tour guide thought that visiting the house would partly fulfil our desire to visit a museum, which she could not arrange because of paucity of time. It, however, could take the place of a living art museum where art products in the form of paintings were created for the modern public. The Balinese local cultural practices seem to follow a pattern in which ancestors, sun, water, cloud and storm, mountains, volcanoes like Mount Bakur are the objects of veneration. Up on the mountain sides, terraced platforms carved out for the worship of ancestral spirits appear to remain as solid as ever. Ancestral spirits dwelling on the mountain tops are housed in mountain temples with a long history. Incidentally, such spirits along with gods and goddesses find a place in every Bali traditional house, which has a space earmarked for family worship. There is no clear indication by which it can be said that the patterns and practices of Balinese culture, which have taken their present form through centuries of experimentation, cross-currents of ideas, social and political concepts and religious beliefs, would change leaving no trace of the existing syncretic elements developed in a spirit of involvement and detachment. This invariably applies to Balinese Hindus as reflected in their attitudes and mental orientation, a sense of attachment to traditional values and intense search for new meanings in them. In the present age of post-New Order reform initiated mainly by the Government of Indonesia, which has now gone democratic, may be with a vengeance, it is not easy to remain closeted to one's own culture. Ethnicity does count in such a New Order. With the end of the Suharto era, and with the arrival of democracy and freedom of speech and probably, continuance of cultural practices, ethnicity has been given new political significance. While tourists are welcome, there is a perceptible disquiet at the permanent encroachment of 'outsiders' in the form of economic migrants endowed with economic power and resources. A staff of a horticultural garden and coffee plantation area, when asked about the ownership of these, sarcastically remarked that the owner was neither a Chinese nor a Malaya but a son of the soil. Other than the Chinese, in recent times the Malay investment in business in Bali is on the rise. Still, there has been an inclination towards the West, beside Australia and New Zealand, which are rather known destinations. There are now Balinese in Europe and America. Balinese temples have been established, one in Belgium and one in Germany. Even in their attitude towards the tourists, they often give an impression of making a distinction between the Europeans, Australians, who frequently throng the island and the Asians like Indians, Chinese, Japanese, Koreans, Thais and Malays who are better known to them. Support staff of our hotel showed extra care in keeping the White tourists in good humour. While they would greet them on every opportunity, smile at them and exchange a few words on a lighter vein, we were less fortunate to attract their notice unless we pressed for it. This does not mean that they were rather averse to us. As a matter of fact, they were never discourteous to us and were ever ready to attend

to our calls, but somehow they gave an impression that they were only doing their duties. Indeed, they were duty bound to attend to the tourists in general because their earning came mainly from tourism. Island's tourist industry is highly developed, in which Government is providing all necessary support. Domestic tourists are also very much on the increase, which only goes to Government's advantage. A sizeable number of Muslims, who represent the dominant section of Indonesian population, are now engaged in various jobs, some of which are directly related to tourism. When it comes to "culture", it cannot be convincingly proved that it has been destroyed by tourism. From the most exclusive beach resorts and shopping malls to the humblest hamlets of hilly areas, offerings are still laid out each day without fail and temple festivals as well as community and household rituals are performed more lavishly than in the past. One good thing about Dutch colonialists was that they at least tried to formalise Bali's status as a place of peaceful culture and tradition, and in doing so to isolate it from the direct impact of modern politics. Even now that desire has been echoed by culture conscious Balinese. Our tour guide would start her day's commentary by reminding us about the meaning of the word "Bali". According to her, Bali was a symbol of happiness, peace and rebirth after shedding off one's sins here. There could be others sharing her views. But it cannot be said that they could successfully keep at bay the direct entry of modern politics into their world of culture and tradition. Probably in future the "politics of culture" will be more intense than it is till now. The focus in that case will invariably be on "cultural tourism". The question of "identity politics" is also involved with it.

There are some features of Balinese culture which seem to remain more or less constant. Cockfighting is one of them. Even now cockfights are occasionally staged as a form of blood sacrifice during many Balinese Hindu ceremonies. In the pre-colonial era, when Bali was famous as a source of slaves, debt was often a certain routine to slavery. Custom decreed that the debtors could legitimately be seized and sold as slaves by local rulers. The high-stakes betting that accompanied cockfights made personal debt a real problem for the families to tackle. In fact, Balinese kings (rajas) sometimes organised huge cockfighting festivals just to ensure a steady supply of debtors. Today, huge sums are still gambled on cockfights. Any reference to cockfighting invariably directs us to Clifford Geertz's 'Notes on Balinese Cockfight' (Clifford Geertz. 1973. "The Interpretation of Cultures". Basic Books : New York). Geertz has tried to analyse cockfighting in 'the language of everyday moralism'. It has a text of its own, as given below.

'Sabung, the word of cock, is used metaphorically to mean "hero", "warrior", "champion", "man of parts", "political candidate", "bachelor", "dandy", "lady-killer" or "tough guy". A pompous man whose behaviour presumes above his station is compared to a tailless cock who struts about as though he had a large spectacular one. A desperate man who makes a last, irrational effort to extricate himself from an impossible situation is likened to

a dying cock...A stingy man, who promises much, gives little, and be-grudges that is compared to a cock which, held by the tail, leaps at another without in fact engaging him. A marriageable young man still shy with the opposite sex or someone in a new job anxious to make a good impression is called "a fighting cock caged for the first time". Court trials, wars, political contests, inheritance disputes, and street arguments are all compared to cockfights.'

Today, Balinese, who have tasted affluence and wealth as a result of the booming tourism industry, cannot spend an enormous amount of time with the cocks – grooming them, feeding them and training them. To the plains dwellers, cockfighting is more an act of gambling indulged in by the mountain dwellers and upland people, who are still rooted to their leisurely-paced life and who are not directly engaged in any skilful activity related to tourism. The fact, however, remains that cockfighting is still considered an expression of Bali's custom taking the form of symbolism. Geertz thinks that in the cockfight "the Balinese forms and discovers his temperament and his society's temper at the same time." Both, however, keep on changing with the passage of time. How I wanted to get a glimpse of it!

It appears that there is considerable flexibility in Bali's culture. What is "traditional" today is not exactly the same as what had been "traditional" earlier. Though it seems to be natural, it also speaks of the inner strength of Bali's culture. In William A. Hanna's view, the process of conversion of pre-Hindu Bali into "an Indianized society was the result not of conquest and colonization but rather of the contagion of civilization"( William A. Hanna. 2004. " A Brief History of Bali". Institute of Current World Affairs ). I am not sure whether Indianization could directly be equated with spread of Hinduism in Bali, but there are reasons to believe that "the Contagion of Civilization", the phrase used by William Hanna, is more appropriate to the Balinese as Hindus and not as Indianized Balinese community, which leaves many questions unanswered or vaguely understood. The concluding paragraph of William Hanna's book " A Brief History of Bali" seems to be still meaningful in the context of Bali of today. It reads, " Bali has been constantly changing since the moment the seawater first flooded across the shallow valley west of Gilimanuk and made it an island. Traders, immigrants and itinerants have changed the place. Javanese overlords and Indian ideas have changed it. Dutch colonists, Japanese imperialists and Indonesian ideologues have changed it. The Balinese people themselves have changed it, over and over. And tourism, most certainly, has changed it too, though not always for the worse." Still, it goes to the credit of Balinese that they have not been swept off their feet by the strong current of multidirectional change. They are quick to realise which parts of their lives and lifestyles are open to the tourist service and which parts they need to protect and keep as their own. The more they are able to hold their own domain, the more they will be in a position to attract the attention of the world.



## **Gods, Dams and the Enemy Across: Negotiating the Sacred Environment on the Himalayan Borders**

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**Abstract:** The higher reaches of the Himalayan Mountains is a landscape alive with the sacredness ascribed to it in Hindu mythology and indigenous life worlds. The mountains also function as a boundary defining the identity of the Indian nation, symbolized as a goddess (Bharat Mata) and protected by Indian security forces as a sacred entity. At present the Himalayan region is also the site for intensive economic development, like dam building that represent national pride and sacred patriotism. Such polyvocality of the concept sacred is situated in a power field where local, national and global interests interact, overlap, contradict and contest.

*Key words:* Himalayas, sacred landscapes, indigenous life-worlds, deified nation, borders, army, dams, and development

### INTRODUCTION: SACRED LANDSCAPES

This paper concentrates on the polyvocality of the sacred in Himalayan mountain landscapes<sup>1</sup>. These borderlands provide a striking exposition of the confluence of varying cosmologies and their interactive transformation in relation to outside influences contextualized within national and global forces impacting them. These snowcapped mountains reflect ancient belief systems, modern nationhood and global capitalism producing a kaleidoscope of multiple visions and intersections that can be corroborated by ethnographic data. These peaks, rivers, and forests, stimulate varied notions of sacredness, inspire awe, foster heightened emotional response, and provoke altruistic and even sacrificial action. These conceptualizations about the sacred are generated from diverse philosophies and worldviews and are sometimes opposed, overlapping, and at the level of praxis provide an arena of contestation.

The present discussion privileges the points of view of the people whose home is in the Himalayan villages, comparing them to those emanating from other vantage points. Sacred is used here in terms of the collective and self-designated meaning given to this term by those who use it. At the same time this meaning is also different for different people since it is analogous to their interpretation of the concept of the sacred. For example, for the Hindus inhabiting the plains of India, the sacred is manifested in the temples and shrines located in the region and to which they make ritualistic pilgrimage trips. For the local people of the Himalayas it is inscribed into their living landscape and is not a doctrine but an ontological reality (Channa 2013: 138). The Himalayan borders are also seen as the line that demarcates the identity

of the abstraction called the 'nation' which is deified by many Indians as a mother-goddess, Bharat Mata<sup>2</sup>. To this goddess are dedicated the army and the dams that harness the energy from the mountain rivers; the sacredness made manifest in notions of national pride, identity and patriotism.

The idea of the 'sacred,' as a sociological concept, is largely attributed to Durkheim(1915), who assigned to it the attributes of invoking awe and having power of a different character from the mundane, situating them on two sides of axis separating the non-rational from the rational, faith from knowledge.. To Durkheim, the sacred was a translation of the functions necessary for the reproduction of society and therein lay its significance as well as universality. Further scholarly works have probed the association of the sacred with the mystical and the experiential, non-rational and "numinous" in the words of Otto (1923). Although Durkheim characterized the sacred as 'set apart', the residents of the Himalayan villages, like many others around the world, do not have such separation of the sacred from the rest of the social and natural world<sup>3</sup>. The sacred is woven into the surroundings and forms an aspect of day to day life. The sacred is also experienced, felt, and is a kind of knowledge that depends on "knowing how" rather than on "knowing that" (Descola 2013:99).'

Augé (c.f. Lewis 1994:573) describes the indigenous beliefs of the people of Côte d'Ivoire, who inhabit an environment where they exhibit a mystical relationship to the habitat and are capable of reading into the signs and messages that seemingly ordinary events convey to them. Similar capacity to read the environment is often encountered among indigenous people for whom the sights, sounds, and smells of their surroundings can be predictive and oracular. Such a surreal relationship is usually associated with geographical locations that are located away from human structured habitats, but not necessarily confined to them (Descola 2013:28-29). Anthropologists situated in far off places away from urban centers often tend to experience these differing versions of reality through their own placement in a 'different world'. Sax (2009: 16) has described his personal subjective experience while doing fieldwork in a Himalayan village, that he saw bad omens everywhere and became fearful of his environment. His dislocation from his European world and placement in the Garhwal hills gave rise to a different embodied response to the environment that he experienced, as full of, "fierce demons and ghosts" (Sax 2009:16).

Another interpretation of the sacred is about the heightened emotional response evoked by symbols considered 'sacred' (Geertz 1973). Lemonnier (2012: 149-150) remarks on the emotional involvement of western men in their vintage cars; 'car devotees may find in these artefacts enough reason to spend more money than they have, to wreck their family life, to drive them to despair, or to cause enthusiasm'. This homology of the sacred with anything emotional, motivating, and inspirational that evokes intense response is what

makes possible non-religious associations of the sacred, like a national flag and logo of a football team.

#### THE BACKGROUND

The ethnographic data for this paper is drawn from the region bordering India and Tibet (China) in the Central part of the Himalayan mountain chain, comprising the Indian states of Garhwal and Himachal. The annexation of Tibet by China in 1959 set the stage for transformations in the lives of many communities in this region known as Bhotiyas engaged in cross-border trade (Furer-Haimendorf 1975, 1978, Brown 1990, Camman 1951). This region and its complex situation of 'overlapping sovereignties' (Wilson and Donnann 1998:9) providing a 'multiple state space' (Schneiderman 2013:28) has been described by several authors (Ludden 2003, Harris 2013, Bergmann 2016). Shepherds, who speak varieties of Tibeto-Burman dialects, differ significantly in both appearance and lifestyle from the Garhwali peasant cultivators. The latter are Hindus, while the former practice animistic forms of religion (Mumford 1989) that concentrate on the sacredness of the landscape. For largely these reasons the Bhotiya have been put under the label of 'Tribes' and included in the list of Scheduled Tribes (ST) of the Indian state.

From ancient times the Upper Himalayan region was primarily linked to the Hindu mainland by pilgrims travelling from all over India to visit the important Hindu sacred sites located there. During British colonization the Himalayan forests were extensively exploited and with subsequent decline of the agricultural economy, became a source of military recruitment for unemployed able bodied men. There is even now a dearth of men in the Himalayan villages, with women taking on most of the work within the village. In contemporary times, tourism and eco-sports like rafting also draw a sizeable crowd to these mountains. In post-colonial India, this region has become a major source of hydro-electric power by the damming of its fast flowing mountain rivers.

The data was collected through fieldwork completed between 1997 and 2009 in the high-altitude villages of the Bhotiyas near Harsil above Uttarkashi, near Gangotri in Uttarakhand, and among the Kinnauries in the high altitude villages in Himachal Pradesh, two adjoining states in the Himalayan region of Northern India. Both communities were engaged in cross-border trade till about 1960 and a few individuals who participated in the trade were still living at the time of this fieldwork research<sup>4</sup>.

Theoretically the paper draws on an ongoing academic discourse in environmental anthropology that focuses on the lack of universality of oppositions such as natural and supernatural and wild and habitation (Croll and Parkin 1992, Descola and Palsson 1996). There is now an abundant ethnographical corpus delivering large amounts of material on what may be labelled as 'animistic ontologies' (Descola 2013: 135), or 'cosmotheistic'

(Carmichael, Hubert and Reeves 1994:6), viewing nature as living and with human like qualities (Bird-David 1999). The relationship of humans and non-humans viewed as continuous and analogic has given rise to 'perspectivism' (Viveiros de Castros 1996) that imputes subjective consciousness to non-humans to describe how these 'other beings' look upon and interact with humans from their own perspective. The material under discussion provides a similar situation of a cosmology of sentient non-humans and living nature.

This paper is focused on an 'ethnographic present' (around the first decade of this century) and also on the responses provoked by traumatic upheavals like melting glaciers, dam construction, and warfare. Since the paper is drawn from the data collected from the indigenous people of this region, the responses to these events are understood from the point of view of the local people only. There is possibility of these responses being different of the other groups that are associated with the mountains such as the army, the administrators and the tourists and pilgrims. The paper focuses on only those for whom the mountains are home, and not on those for whom they are terrain to be inhabited temporarily. The cultures that have already adapted historically to this landscape are the ones that are now responding to the traumas unleashed by climate change and anthropomorphic interference with the habitat. The absorption of new 'schemas' (Descola 2013: 107-109) and consequent reformulation of existing ones provides insights to how cultures respond when challenged.

#### NATURE, CULTURE AND THE SACRED

The Bhotiyas and other border communities are often mistakenly identified as Buddhists (Rizvi 1979) in official or academic records. However, they do not follow any doctrinal or bounded religion, but instead ascribe to a cosmology that promotes an understanding, of the sacred as living, ever present and embodied, not abstract (Channa 2013). Thus, many sites on the mountainside, in the forests and the water are viewed as either sacred beings in themselves or the abode of spirits and non-humans. Such beliefs are spread across the Himalayas among most indigenous peoples (Malsawmdawngliana 2009, Smyer 2015). As noted by Carmichael, Hubert, and Reeves (1994:3), the sacredness of many sites (and of the landscape) continues even after exposure to other global religions, like the continuity of pre-Hindu and pre-Buddhist beliefs in the region under consideration. The Kinnauries and Bhotiyas, follow an eclectic mixture of Hindu, Buddhist, and cosmotheistic practices, where Hindu or Buddhist identities are sometimes bestowed on their local deities or the Hindu deities incorporated into their pantheon with local characters (Channa 2005).

When the Dalai Lama fled with his entourage from Tibet, many Buddhist monks travelled to many parts of the Indian Himalayas and set up small monasteries. Such Buddhist shrines dot the mountain villages and are revered by the local people. The hill people were happy to have an additional sacred

entity added to their pantheon of deities and assimilated the Buddha into their own cosmology as one among their many sacred entities<sup>5</sup>. In the Kinnaur village of Chitkul, there exist two adjoining temples, one of the village deity, Nag Devta (Snake God) and the other of Buddha (regarded here as a deity like other village deities). The villagers narrated many incidences of interaction and conversations between these two 'gods'. In one narration that references an ancient temple in the village, it is said that 'It was built in honour of Buddha by the Pandavas'. The Pandavas (Five Pandav brothers) are the central characters of the Hindu epic, Mahabharata, which chronologically predates Buddhism by several centuries. There is therefore a local mythology that may differ considerably from that of mainstream Hindus or textual mythologies.

The local villagers consider all their deities or gods to be living, interacting social beings, whose presence among them is like other members of the village, except that the gods have superhuman qualities. I was told for example about a village deity who actively assisted the local police to nab a criminal who had fled with goods from a local temple. Conversations between human persons and gods was part of daily interactions and taken as normal to every day existence. When asked to specify, in what respects the gods differ from humans, one person described quite succinctly that 'The gods are like us humans in every respect, they have emotions, they marry, get angry or sad, just like us. They only differ in that they are not bound by time and space like us. They do not age, and they can be anywhere at any time'. The 'interiority'<sup>6</sup> (Descola 2013:116) ascribed to these beings is identical to that of the humans and the same emotions of jealousy, anger and protectiveness are ascribed to them. Religious practices consist of appeasement and negotiations with the deity rather than prayers and supplications. The sacred beings are not simply present but are proactive and part of the daily social and political life of the people. .

Most ethnographies done in the Garhwal Mountains record that every village in the region is ruled by a sovereign superhuman being who resides in a palace, has a treasury and attendants, and whose command is obeyed by the villagers (Galey 1994, Sax 2003, Channa 2013). The deities here, unlike Hindu ones are not enshrined and worshipped in temples. They are believed to reside in their homes referred to in local language as '*sthan*'( place), coming out on special occasions to interact with their subjects. Permission for most important actions like marriage or making a house, must be sought from the ruling deity. For example, in one instance the villagers were sitting with their fields ripe for harvesting, waiting for their deity to return from a visit to her husband. They were worried that the time for harvesting was getting late, yet they could not raise a finger without permission from their sovereign. The deity, they said, was stranded at a point near the village due to bad weather, but sent daily updates about her arrival, similar to how any head of state would in a similar situation.

The living landscape has the same qualities except that it is not mobile like the deities. According to religious beliefs common in this region, nonhumans, plants and animals, streams and stones, forests and peaks, have the power to get angry, to destroy, and to be benevolent if appeased by the human population. The Jads of Uttarkashi believe that every Deodar tree in the forest is a deity (*devta*) and can become jealous of humans if they appear to be more beautiful than them. Thus, the local villagers wear only dull colours, like dark blue, purple, or black while entering a forest. If a person wears red, orange, or yellow, the *devta* can get angry as these are their 'own' colours (the flowers of the forest being of these colours). The villagers tread softly, refrain from making noise or creating any nuisance in the forest. Menstruating women do not enter the forest. The Kinnauries consider fruits growing wild in the forest like *chilgoza*, wild walnuts, and wood apples as gifts from the gods. While they pick, eat, and store these fruits, they never sell them as they consider it a sin to commodify what the deity gives to them freely. Thus, nature is not an objectified entity but a living personage and a part of the social world<sup>7</sup>.

Although the local beliefs differ in some ways from Hindu beliefs as discussed, the sacredness of non-humans, including rivers, animals, and trees is not opposed to Hindu cosmology. Both Hindu and indigenous cosmologies describe the major peaks as sacred deities (Aitkinson 1986: 285, Eliade 1985:7); Kailasa (the abode of Shiva), Nanda Devi (a goddess), and Chomolungma (the Tibetan deity known the world as Mount Everest). The Garhwal Mountains are also known as Devbhoomi; or the land of the gods. Devout Hindus perform the Char Dham Yatra (the pilgrimage to four sacred abodes) when they visit, Gangotri, Yamunotri, Kedarnath and Badrinath; highly sacred spots situated in this region<sup>8</sup>. In Hindu mythology the Kailasa Mountain are the heavens, and the route of the Pandavas climbing the mountains to reach heaven is etched on the entire Himalayan landscape that is also known as the Mahabharata belt. Sax (2001, 2002) has described the Pandava enactments that he observed among the Hindu peasants of Garhwal. As described by Channa (2005) the mythical Pandavas of the Hindus have become living gods and members of the Bhotiya society. This is commensurate with what Descola (2013: 100) has described about the ability of collective practical schemas to absorb changes in a way that is commensurate with what already exists.

The Hindu and Bhotiya cosmologies overlap but their interpretation of the sacred often varies. The mountain people verbalize their self-perception of the difference from the people of the plains by saying, 'the gods *live* on the mountains and become lifeless idols in the plains'. The orthodox Hindus of the plains view the lack of temples and the lack of rituals as a 'lack' of the notion of sacred among the mountain people. There is therefore a mutual denigration of the 'other' in the contestation between those living in the mountains and the plains.

Religion and gods are not the only kind of sacred that is perceived with respect to these mountains. There are other kinds of sacred too.

#### THE NATION AS SACRED

The formidable Himalayan mountain range is also a border that marks out the Indian nation. Linkenbach (2007) refers to the political sensitivity of the Himalayan borders and the need for military protection along the impossibly difficult terrain. Historically, after the creation of Pakistan in 1947, this border has been the uneasy site of conflict raging between the two nations, sometimes manifest but always latent. There are almost continuous skirmishes between the troops stationed at great heights and loss of life is an ongoing phenomenon. In 1962, there was a major war with China (after China annexed Tibet) and although the political relations between the two stabilized subsequently, the apprehension of possible conflict remains. In 2018, tensions with China created an uneasy situation at the Doklam border between Tibet and Arunachal Pradesh<sup>9</sup>. Earlier, India annexed Sikkim, an independent country, making it into one of its several states. The borders therefore remain contested and claims and counterclaims regarding legitimacy of occupancy and residence abound.

The militarized sacredness of the Himalayan borders is a derivative of its metaphoric identity as the protector of the collectively imagined goddess Bharat Mata<sup>10</sup>, symbolizing the Indian nation, from both China and Pakistan, who are 'the enemy across'. The 'enemy' also symbolizes the 'other' in terms of religion since Pakistan is an Islamic nation and China, too is non-Hindu. By the same rationale, Nepal and Bhutan<sup>11</sup> are not regarded as enemies, just politically separate. Patriotic songs always refer to the mountain snows as stained with the red blood of the Indian soldiers and looked upon as a site for martyrdom and sacrifice as made by the idealized Indian army. To the Hindu nationalists the sacredness of the mountains in terms of their ritual and religious significance reinforces the identity of the nation as a goddess.

These mountains are also the site of what Nehru<sup>12</sup> called the temples of modern India. The dams generating hydroelectric power supply energy to a modernizing country, especially its urban areas and industries, and became icons of nationalist pride for a post-colonial Indian nation. As described by Klingensmith (2007:254) the dam making projects initiated by the post-colonial Indian state was seen by the then political leaders as an attempt to compensate for the humiliation of being colonized. The post-colonial Indian nation was imagined as a secular entity based in what Weber would refer to as Rational-Legal power. At least officially the 'Nation' was built upon a denial of the sacredness of nature and an emphasis on the sacredness of measurable, achievable goals, such as hydroelectric power. During the colonial period the sacred Ganga was intercepted at Haridwar and its main water channeled for agriculture leaving only an artificially created canal for the worshippers at the sacred spot (Alley 2002). At that time there were protests from Hindus but

in the post-colonial era the discourse was incorporated within the notion of patriotism.<sup>13</sup>

The Tehri dam project on the river Bhagirathi in the Himalayas was initiated with the invocation of patriotic sentiments of self-sufficiency and development, especially as it was conceived soon after the humiliating defeat suffered by India at the hands of China. The dam, which submerged the ancient town of Tehri<sup>14</sup> and displaced 6000 families, was mired in controversy and took almost forty years to complete. The dam became the focus of rising resentment both with respect to the displacement of people and with regard to the natural habitat of the forests and rivers (Bahuguna 1995). At present according to existing data, there are 600 dam projects in the Himalayan region, under speculation, completed, or underway (Dharmadhikary 2008). The environment versus development debate is alive and finds much space in public discourses of the Indian democracy. Interestingly this debate earlier sidestepped the issue of religious sacredness as it was located within a positivist and highly western concepts of rationality and modernity. But the religious component has more recently entered into this discourse causing powerful shifts including stoppage of dam projects (Drew 2017:1) indicating an ideological transformation of the political climate.

#### CONTESTED LANDSCAPES OF POWER

To summarize on what has been said, there are several cross-currents of sacredness that permeate the Himalayan region, on the Indian side. It is an important political boundary that also reinforces the identity of the Indian Nation. The local people as well as the Hindus of the plains have their sacred landscape etched over the mountains, in the form of sacred peaks, rivers and caves. The most important sacredness that is emergent in the present times is that of energy to be harnessed from the mountains, resources to be extracted and fed into the mightiest sacred entity of the present time, the corporate industrial, capitalist economy that has come to represent nationalist pride and identity. As discussed earlier, the notion of schemas is theoretically important as a fulcrum to analyze how the polyvocality of the sacred is worked out in the power fields that intersect on these mountains. The existing and transforming schemas indicate both points of contradiction as well as adjustment to the transmuting landscapes.

The first radical transformation can be observed in the intensification as well as the easing of communication and transport. Earlier, this region was difficult to access and completely cut off from the mainland in winter. With the army moving into the border regions, roads, bridges and communication networks were built on a large scale. The making of dams has accelerated this process. With improved roads and earth movers to clear the snow, the region is becoming more accessible and attractive for trade and tourism. The opening of the region to the global market economy can be seen in the stocks of tinned



Tuna fish, imported cheese and beer in the local shops and in the young people wearing Levi jeans and Ray Ban goggles. The Vedic sacred landscape of most urban Hindus has been transformed from verdant natural spaces to highly concretized and modernized versions that can be accessed by helicopters and four wheeled drives. Less than a hundred years back, before the army, the Border Security force and the Indo-Tibet Border Police had colonized the greater Himalayas, pilgrimage meant a journey by foot or local transport over a difficult and hazardous terrain. Today there are motorable roads carrying thousands of pilgrims as well as tourists on them. Important persons are transported by helicopters. Such people are either unaware or choose to ignore the conceptualization of the environment as sacred. They treat with indulgence and consider as childlike fantasies the narratives of sacred landscape and their spiritual powers. The Hindus are focused on their specific deities and have wrenched them from the natural environment by completely transforming these shrines into built environment (making temples, concretizing the surrounding and lining caves with marble). The mountain roads are lined with guest houses, eating places and other paraphernalia of urban life. Thus the sacred has become disjointed from nature as far as the urban people visiting the mountains are concerned. To the pilgrims coming from the plains, it is a necessity to make the sacred places accessible and also provide the urban comforts that they are used to. The state too supports this kind of 'development' and is committed to making more roads, hotels and 'facilities' for the pilgrims and tourists that come up from urban areas with little regard for the local habitat and the environmental damage being caused. We find that the concept of sacred varies almost dialectically between the cosmology of the local inhabitants and the belief of the urban visitors. The latter also consider the world view of the former as 'jungle' and not civilized.

Locals participate actively in the cash economy and enjoy the market goods but retain their original schemas about the sacred landscapes. The villagers in Kinnaur, for example, were apprehensive about the roads and construction works done by the army because some of them violated their sacred spaces. One road in particular was pointed out as passing just above the abode (a hole in the steep rocky mountain side) of a snake god. The local people believed that once the vehicles start moving on that road, they will disturb the god's sleep. Another threat posed by the army is to the women. Most village women, freely enter the forest to collect various produce like fuel, fodder, edible berries and roots. The villages near the forest were earlier considered as extensions of the village space and safe for the women, but now there are some apprehensions about 'outsiders' and strangers.

There is also serious discrepancy in the way the sacredness of the nation appears to the mainland people of majoritarian Hindu India and the marginal villagers of the borders. For the communities on the high mountains of the Himalayan borders, the nation remains a distant entity, represented only by

the army and more recently by the so-called 'development' activities that are manifested by the building of the dams. The mountain villagers stubbornly stick to their local rulers and local village gods, who also have a sovereign identity. Largely ignoring the rulers in the political center of the nation state, these communities continue to pay homage to the remnants of the earlier feudal kingdoms<sup>15</sup> and to their own deities. These local self-constructed political identities have, at best, an uneasy relationship with Indian democracy (Channa 2017). The so-called 'national agendas' are either of no use to them or perceived as actively dangerous to their landscape and lifeways. In the Kinnaur region, a massive dam is being built on the Bapsa River, by a large company located in Delhi. This company is managed by an urban family with no roots in the hills. It is unlikely they have had any association with the local people. To locals, the only advantage that has come from the building of the dam are the large earth-movers that dot the mountain sides and are used for clearing debris and the heavy carpet of snow that engulfs this area in the winter months and make the roads usable.

To the majority of Indian people, the army is idealized and seen as protector of the 'nation' especially of its borders. The army however holds a different connotation for the mountain people, many of whom are voluntary members as of the army. Recruitments into the army had started here in the mid nineteenth century (Guha 1989: 23) and continues even today. Initially they were all part of the Gurkha regiment but later the Garhwali Regiment was formed in 1890 ( Guha 1989:23)) making the army a familiar more than a revered entity on these mountains. Locals treat the army personnel like equals and often share a friendly relationship with them but realize they can be a threat. Women, specifically fear for their safety. The glorified army depicted in mainstream media, television and Bollywood movies, finds no resonance on the borders where the army's actual actions of defense as well as its acts of dominance are located.

The other representatives of the nation, the mega dam projects, are seen as a threat to local identity, culture, and more importantly, the sacred landscape. The technology of boring tunnels through the mountain side is wreaking havoc on the local habitat as the Himalayas have a fragile ecosystem and the mountains are prone to landslides. It is common to see entire mountains sides hedged in by steel nets to prevent them from collapsing. The local villages often have fertile fields destroyed by masses of stones dislodged by massive landslides. Many houses show cracks on their walls. These local narratives about the negative aspects of the dams are rarely mentioned, even in the environmental discourses that criticize them. The small village communities of remote hilly areas are politically unimportant and economically and socially marginalized from the mainstream nation. Consequently their concepts about the sacred rarely enter into mainstream reckoning. A scholar of Garhwali Brahmin origin writes in her dissertation

(Joshi 2016) about the Tehri dam, saying that the name Tehri was described by local inhabitants as being derived from its original name, Trihari, meaning the three Hari or Gods. In Hindu cosmology they are the Trinity of Brahma, Vishnu and Mahesh; the Creator, Preserver and Destroyer of the universe respectively. Such sacred significance is not mentioned in any official documents about Tehri and is certainly not part of the ongoing discourses on the dam. The local people, already seen as culturally and politically marginalized, are viewed as dispensable and easy sacrifices to the larger interests of a Nation that is composed of the dominant Hindu upper caste majority. The urban intellectuals that mostly constitute the policy makers and the power elites at the center have a world view that situates them far away from the cosmotheistic world view of the mountain dwellers.

The imperfect integration of this borderland into the Indian democracy (Channa 2017) also means that local villagers cognitively dissociate themselves from the '*sarkar*' or the government at the center. While local villagers are deeply concerned about the forests that they can use, they are indifferent to those that are out of bounds for them. In their cognitive map the patches of state owned reserved forests are simply trees and not a real forest of their sacred landscape. A patch of herbs planted on the side of a mountain was dismissed as 'belonging to the *Sarkar* (state)'. That particular patch had been planted by the state run horticultural department as an experimental field for herbal medicines; but for the locals, it was outside of their world. The same indifference is shown towards all state-run projects whose benefits are believed to be for the 'outsiders' and not for the residents. Most prominently this indifference, and to a large extent hostility, is exhibited towards the dam coming up in their region. People were convinced that the benefits of the dam were to go to urban centers in far off places like Delhi and Mumbai, and according to one informant, America!<sup>16</sup>

The people on the Himalayan Mountains do not harbor nature centric sentiments (like some environmental ideologies such as Gaia) while quite literally living in the lap of nature. To them the environment consists of their spirits and deities, their fields and useful trees, shrubs, streams and pastures. Nature as such is not separate from the cultural and the supernatural. Trees, streams, mountains and even stones have life and temperaments that are similar to humans. They expect respect, adherence to rules and are integrated into the same moral universe as the humans and the spirits and gods. As discussed above such 'animist ontologies' (Descola 2013:131) are familiar to those working among the indigenous peoples of the world. What is of interest at this point is how they interact and react to changing times and influences and also how they survive and rework their existence.

The absence of any separate concept such as 'nature' also makes these people unaware of how this category of phenomenon is dealt with and perceived in other worldviews. They are not concerned with the 'beauty' of the lush

reserved forests and not unduly concerned with loss of vegetation to which they have no access and which is not useful to them, either because they do not recognize them (like the medicinal plantation) or which is out of bounds for them or they are actively hostile to the manner in which an externally constructed view of nature has been thrust upon them. They understand their habitat as a 'lived in space' (Ingold:2000) and not an abstract construct. They interpret natural phenomenon in terms of their relations of praxis and actual day to day life.

The melting of glaciers and ice is of great concern to them as the frozen mountain rivers in winters provided routes for travel to their destinations for trade, pilgrimage or family visits. With the melting of the ice, these earlier smooth, icy walkways (to which their animals were also adapted) have given way to stony and thorny paths, difficult to traverse. Some areas have become inaccessible and some take more time to reach. The mountain communities had their cultural means of coping with long routes where food and supplies of necessary items may get exhausted *en route*. Therefore, there were designated stop overs where anyone passing by would deposit some food and other essentials for people who might be coming later. These known spots were like familiar landmarks of rest and replenishment of resources like a petrol pump would be for a motorist on the highway. With the loss of familiar routes a traveler was being denied these facilities.

The Himalayan mountain region is also known for the frequent and regular travels undertaken by its living deities (Channa 2010), for pilgrimage to higher deities and for visits to relatives (other deities). Traditionally, such travel (*yatra* in the local language) were undertaken by foot. Yet local schemas are often modified to adjust to changing times and technology. In recent times the gods are also travelling by wheeled vehicles that enables old persons to also make a *yatra* with the gods. A delighted old woman for example was able to make such a *yatra* in her advanced age only because the deity was travelling by car and not by foot and she could go along as she did not have to walk.

For the mountain people trees and rocks that surround them are not just sacred, they are animate, they react, they change form, they help, and they punish. But at the same time there are trees that are trees and forests that are forests, and these are the ones that are planted by the state or by outsiders. Therefore even within the same physical space, cognitive boundaries are drawn between what is perceived as a component of their lived world and what is essentially 'non-existent'. The army, the state-owned parts of the surroundings, the commercial enterprises and things meant specifically for outsiders are ignored or emotionally distanced. *Those things do not matter!*

Hostilities surface when they feel encroachment on their own domains, their sacred spaces and there is a feeling of impending disaster that may pose a threat to the 'life way' (Grimm 2001: xxxiii) that defines their identity. An entity like a dam is a threat not only to their sacred landscape, it also poses

an imminent threat to their cultural and political identity. In Kinnaur, the large township being built by the company making the dam, has brought in a large number of outsiders in their vicinity. As one young informant put it, 'In the next elections, they will have more votes than us. We the locals are going to be marginalized'.

#### TO CONCLUDE: THE CONTESTED LANDSCAPE

The landscape under discussion in this paper is one that is not tranquil but one that is turbulent with contradictions, where cross-cutting forces are pulling in different directions, where new myths are created to obfuscate existing ones. The sacred rivers are being dammed, the *devbhumi* (abode of the gods) also houses the vehicles of violence and war. Most of the sacred Hindu pilgrimage sites forbid the use of meat and liquor, yet the army men are allowed these forbidden foods. It is recognized that the military personnel need to eat and drink to be able to fight. What they need is physical and not spiritual strength. The Army represents one aspect of the nation and the dams represent another. Defense and development are the new mantra of a country trying hard to establish its credentials in the global economy. With reference to the newly built town of Tehri, which replaced the ancient Tehri<sup>17</sup>, Joshi (2016:51) writes that as one moves along the National Highway 34 that leads to this new town, one comes across many signposts eulogizing the Tehri dam; these inform visitors that the 'dam was a symbol of hydro-power; a symbol of progress and development'. Yet these sign posts in no way reflect the opinions of the local people. As Joshi (2016: 55) describes, there were hopes of jobs being generated from the dam, better schools for children and generally a better future. But stark reality has forced most of the dam affected people to attribute the dam to an external concept of *vikas* (development) where the benefits are for the outsiders and the costs are borne by the locals. Today the negative aspects of dams are much better known than they were when Tehri dam was conceptualized. In present times local resentments against these intrusions are rising and their rationale are framed in terms of their own cognitive schemas that contest the 'nationalist' perspectives.

Disasters triggered by dams are now common knowledge such as the devastation caused by an earthquake in Uttarkashi region in 1991, in which 800 human lives and 10,000 heads of cattle perished. The locals blamed the Maneri dam. In recent times local protests have stalled some state conceived projects. Some years back, a project to build skiing slopes imitating the ones on the Swiss Alps was vehemently struck down by the local people who said that their deities were going to be deeply disturbed by such a violation of their abode. Since at the local level most decision makers also belong to the local culture, there was apprehension and the project was dropped.

Local narratives draw upon their own version of the sacred to contest those that support both the patriotic and the economic development agendas.

In 2013, a great flood hit the Garhwal Mountains, cutting off the shrine of Kedarnath from the rest of the world and leaving thousands of people, especially tourists and pilgrims dead. The shrine of Kedarnath had stood majestically over the thousands of dead bodies, the deity inside, inscrutable and unforgiving. Illegal constructions, excessive depletion of forest cover and other anthropogenic activities driven by human greed had caused the figures of those dead to rise astronomically. The power of the sacred was recognized as both destructive and protective, protecting its own, and destroying what most devotees and believers perceived as wrong doing. The miraculous saving of the main Kedarnath shrine and the washing away of forty illegally constructed hotels near Gaurikund, were both attributed to divine intervention, strengthening the world view of the believers. Similar narratives about the sacred landscapes were circulated about the 2011 earthquake in Sikkim that had caused enormous destruction. The locals say the epicenter was at the place where the mega dam built there had violated the most sacred abode of the deities.

The local deities, or the power of the sacred landscape, is often directly opposed to the national and the global. The indigenous people find it difficult to comprehend the distant entity of the abstract 'Nation'; or as in the words of (Klingensmith 2007: 281), the occult entity 'People'; for whom they have to make sacrifices and undergo hardships.

For the people on the borders, engaged for centuries in cross-border trade, the enemy is not across, it is back *there*, towards the plains, towards the cities of India. The mega dams on the Himalayas are being built in collaboration with multinational companies that have power beyond that of the local rulers or political leaders to control. The central state of the Indian nation is often also held at ransom by the world economic powers. As Kapferer and Taylor (2012: 5) put it, the nation state is now shifting towards a corporate state. The building of these dams is probably violating not only the body of the sacred mountains and the sacred landscape of the pastoral and cultivating peasants of the higher Himalayas, but also threatening the sacred landscape of the Hindus and the nation. The nationalist interests, represented and operationalized by the majoritarian communities, trade in the sacredness of the landscape for the sake of constructing a powerful, and in its own way, sacred identity - an identity that needs to be protected by the armed forces and held sacred in terms of patriotism and sacrifice. But even here the explicit narrative built up around patriotism obscures the more selfish corporate economic agendas. The global corporate forces collaborate with and manipulate national interests. The representatives of the nation, befuddle the local people with explicit goals of development (*vikas*) that often spells disaster for them. In the same way unnecessary wars cause the spilling of blood of young men in vain. In this scenario, the power of the sacred landscape emerges as the only countervailing force that can contain these impending threats;

yet they in their fury only cause more disasters. The polyvocality of the sacred and the multiple narratives of its construction continue to play themselves out in this landscape in the form of a story with no end.

#### END NOTES

- 1 The concept of landscape used here is in the sense given to this terms by phenomenologists (Tilley 1994, Casey 1996), cultural geographers such as Mitchell (2008: 170) and philosophers such as Merleau-Ponty (1962) Heidegger (1972) and others who 'stressed important ontological characteristics of the relationship between inhabited space and social Being-in-the world' (Tilley 1994:13). With specific reference to the Himalayas one may refer to Drew (2017) and Yu (2015)
- 2 The nation was symbolically constructed as a Mother Goddess during India's freedom struggle by the great intellectual and writer Bankim Chandra Chatterjee, who also gave the slogan *Vande Mataram* (salute to the Mother) to invoke patriotic fervor among the Indians and to emphasize the sacred nature of the nation. The first image of this goddess was painted by artist Abanindra Nath Tagore and the original hangs in the gallery of the Victoria Museum, Calcutta.
- 3 Clifford Geertz (1983:76) for example observed that "For many people religion is like commonsense in that both seem self-evident, immediate, even obvious, no questions asked or needed" (c.f. Eller 2007 : 33).
- 4 Schneiderman (2013:30) writes with respect to the Nepal side of the trade that almost every male villager interviewed by her above the age of 60 was engaged in this trade.'
- 5 One may refer to Spiro's understanding of village Buddhism and his analysis of the Burmese gnats (Spiro 1967).
- 6 Descola (2013:116) uses this term to describe what humans mean by consciousness, soul, reflexivity, intentionality, capacity for feeling and the capacity to express.
- 7 Linkenbach (2006: 155) describes similar symbolic significance of the forest for the villagers of Uttarakhand.
- 8 The first is the source of the river Ganga, a glacier called Go-Mukh (the mouth of a cow), the second the source of the river Yamuna, both highly sacred in Hindu cosmology. The other two shrines are the seats of the supreme god Shiva, in two manifestations. Himachal does not have any major shrine of Shiva although it has several shrines to the goddess Parvati or Kali.
- 9 Arunachal is in the extreme North-East of India, earlier known as the North-East frontier Agency and in current times there is an ongoing dispute with China that claims this territory and its people as its own. The Press Trust of India, recently reported that the Indian military had increased its presence at Dibang, Dau-Delai and Lohit valleys along the Tibetan border inside India ( PTI, in The Statesman, 1st April 2018,p1)
- 10 See footnote 2
- 11 Nepal was regarded as a Hindu kingdom till recently and Bhutan is largely Buddhist, considered by Hindus to be close to themselves. Pakistan on the other hand was carved out of India only on the basis of the rift between Hindus and Muslims, a genesis that is perpetuated by each demonizing the other and the collective memory of violence that had accompanied the division.
- 12 Jawaharlal Nehru was the first Prime Minister of Independent India from August 1947 to his death on 26th May 1964. He was educated at Harrow and Cambridge in England and ushered in ideas of modernity based on an European model

- 13 A more contemporary debate on religion and development can be read in Drew's (2017) work on the river Ganga in Uttarakhand.
- 14 Tehri town was an important culture and trading center for the mountains which functioned as a stopover for the pilgrims to Kedarnath and Badrinath (Joshi 2016).
- 15 The erstwhile ruler of Tehri, although divested of all royal power in the Indian republic is still venerated by the local villagers and addressed as Bolanda Badri, the Badri who speaks, thus looking upon him as the living embodiment of Badrinath. Badrinath is among the most revered forms of Shiva enshrined in the Garhwal Himalayas.
- 16 A news item published in *The Statesman*, 24th February, 2018, indicates that such apprehensions are not unfounded. According to it, a mega dam project being undertaken by the states of Uttarakhand and Himachal Pradesh jointly will inundate 512 hectares of cultivated private land and 2,438 hectare of forest land, rendering 701 families and 5,498 people homeless and also destroy forest based livelihoods and the cutting of 500,000 trees. The dam will particularly destroy the lifeways of the tribal people of Jaunsar Bawar of Chakrauta who are both subsistence cultivators and pastoralists and have been of great anthropological interest (Berreman 1975). The people of neither state will get much benefit as most of the water of the Kishau reservoir will be used for irrigation, power generation and supply of drinking water to Delhi.
- 17 The final submergence came in 2006 when the Tehri dam was finally opened.

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## **The Dynamics of Place and Space in the Mountain Village of Sillarygaon in Kalimpong District, West Bengal**

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**Abstract:** The present paper is an outcome of a fieldwork conducted in a multiethnic mountain village of Sillarygaon, district Kalimpong, West Bengal, India. The strategic location of the village facing the picturesque Kanchenjunga range has opened up a new avenue of livelihood in form of tourism for the residents of the village. Most of the resident families (51.5%) have constructed 'Homestay' which is a new form of staying place for the tourists. This staying place for the tourists has led to creation of an 'Inscribed Space', controlled by social and economic capital which has a considerable impact on the material life of the locally settled communities. However, the communities have continuously kept on trying to sustain their tradition, be it in terms of material, social or supernatural realms of everyday life and thereby reproducing the sense of proxemics which has its imprint written over the entire community landscape.

*Key words :* Homestay, Place, Space, Capital, Proxemics, Sillarygaon, West Bengal

### INTRODUCTION

The concept of 'Place' and 'Space' is most significant in the production of culture across societies and communities around the globe. De Carteau (1984) has stated that "space is a practised place" where historically and culturally situated people create a locality of familiar 'here' and 'there' in the same way as the speakers act out language system in creation of vernacular meanings. 'Place Making' in terms of dwelling unit represents "ethnography of locality" which in Cohen's term is "an account of how people experience and express their difference from others" and the "way in which people express their attachment to a locality" (Cohen 1982: 2-3). Cohen's focus was on the social relations between people and groups that make up the local population. 'Locality' and 'Place' tend to be treated as passive settings for relational matrix among people (Rodman 1992: 640-641, 643). In recent years, a growing number of ethnographers and geographers are interested to understanding the process of place making by examining the way people create place from their attachments and simultaneously definition of the self (Basso, 1996; Bender, 1993; Feld and Basso, 1996; Rodman, 1992).

'Inscribed Space' has its focus on the fundamental relationship between the humans and the environment they occupy. It implies the way humans write in an enduring way about their presence in their surroundings (Low and Zuniga, 2003). Anthropologists over the years have contributed in documenting the way people form meaningful relationships with the localities they occupy; the way humans attach relational meaning to space with different

forms of capital (Bourdieu, 1977) and transform 'place' into 'space'. In the present write up, our interest was to understand the way experience is embedded in space, which in turn hold memories. The communities settled here try to maintain their age old tradition and manifest their experience through 'Embodied Space' (Munn, 1996) in general and 'Proxemics' (Hall, 1968) in particular. The relationship between people and their surroundings involve the recognition and cultural elaboration of perceived properties of environments in mutually constituting ways through narratives and praxis.

In the present paper, we have tried to make an empirical exploration to narrate the place-space dynamics within a 'Homestay'. Homestay is a popular form of residential support provided to a tourist or a tourist halt in the home of a local resident where the parties are strangers to each other. This system is a miniature form of hotel industry, whereby the natives earn financial benefits while the guests enjoy stay in a home, away from home. Homestay act as a site of 'Inscribed Space', whereby the local people reconstruct their home, into a space to accommodate the tourists from the outside world

In homestay, the household features acquire a renovated look which promotes the spatial production of economic and cultural capital. In brief, the indigenous value systems of the natives undergo conspicuous changes particularly in the domain of the material culture, which in turn helps into revenue generation both in monetary and social components.

#### METHODOLOGY

First hand fieldwork was conducted during the month of October 2014 in the Sillarygaon village, district Kalimpong, West Bengal to impart fieldwork training to a group of students pursuing Anthropology course. Some of the primary demographic data collected by the students has only been used to describe the study setting. The data relevant to the theoretical discourse of the paper has been collected by us using observation, case study and interview techniques. Case studies were made on seventeen (17) homestay-owning families. The information collected through these case studies include the process of gradual setting up of homestay and the everyday management of homestay. The names of the homestay and of the informants have not been disclosed as a part of ethical issue. To meet the objective of the study, interviews were also conducted on the employees of these homestays who cater the needs of the tourists.

Our primary interest was on 'Anthropology of Space and Place' and thus have tried to bring the study within its theoretical ambit. The prolonged stay in the field has helped us to establish rapport with the villagers. Further, the homestay owner who hosted us became the key informant in this study. An owner of a tea shop, located in the village, where we used to visit frequently provided us important information pertaining to this study. Few other homestay owners of that locality also cooperated with us in data collection.

### *Area and people*

The multiethnic mountain village of Sillarygaon is located at an altitude of about 6500 ft, facing the picturesque Kanchenjunga range. The village is also referred to as “New Darjeeling” for its magnificent location.

The general layout of the village reveals a two tier form of settlement, the upper and the lower one. From the very entrance of the village, two non-metalled pathways get bifurcated and leads towards the respective tiers. The northern boundary of the village is flanked off by the village playground and the eastern boundary by the village primary school. The southern boundary of the village is flanked off by the forest which is located at the highest point of the slope and the western side leads to the pathway for a trek toward Icchegaon. The residents of the village comprise of people from four different ethnic groups namely Tamangs, Thapa, Sherpa and Rai. The Tamang people have predominantly migrated from Nepal. The Tamangs are divided into a number of *thars* or sub-groups who practise exogamy<sup>1</sup>. The Sherpa people originally hail from Tibet. This group can be sub-categorised into a number of exogamous territorial clans of which *Solu* and *Khumbu* people are settled in this village.

During the time of fieldwork, Sillarygaon had a population of 155, out of which 80 (51.60%) are males and 75 (48.4%) are females. Analysis of the literacy status from the census reveals that 11 (13.75%) males and 16 (21.33%) females in the village were still non-literate. Majority of the males (43.75%) received education up to secondary level while most of the females (32%) completed education up to the primary level. We found 13 (30.23%) males of the village were directly involved in tourism activities, may be as employees of homestay or transport providers or engaged in eatery business. Likewise, 13 (56.52%) females of the village were directly involved in tourism industry both in form of proprietorship of homestay or as support staff. The secondary occupation of the villagers, show that five (31.25%) males and six (60%) females were engaged in tourism related service during the peak tourist season. In brief, the entire population of the village are directly or indirectly engaged in the tourism industry and this creates the spatial identity of Sillarygaon as a whole.

There were 33 families settled in the village (19 *Tamang* families comprising eighty seven individuals, 7 *Thapa* families comprising 28 individuals, 4 *Rai* families comprising 25 individuals and 3 Sherpa families comprising 15 individuals). Out of these 33 families, 22 (66.7) were nuclear, 7 (21.2%) were extended (vertical or horizontal) and 4 (12.1) were of incomplete. The family composition, both in terms of type and size contribute to tourism business. From several cases<sup>2</sup> it becomes evident that the revenue earned from tourism business is family centric. In simple words, resources generated from the business is commonly shared by the different family members. Apart from engagement in tourism industry we also found villagers employed in service sector, practicing horticulture, working-as day labour and in other forms of skilled labour.

## OBSERVATION AND DISCUSSION

*Place for Self: The Home*

To write on 'Place Making' in terms of dwelling unit, we would mention about "ethnography of locality", which in Cohen's term is "an account of how people experience and express their difference from others" and the "way in which people express their attachment to a locality" (Cohen 1982: 2-3). Cohen focused on the social relations between people and groups that make up the local population. We must also state that 'locality' and 'place' tends to be treated as passive settings for relational matrix among people. In recent years, ethnographers and geographers are interested in the process of place making by examining the way people create place from their embodied attachments.

To represent the discourse of place making in Sillarygaon, at the outset, we would like to narrate the history of this place. The landscape originally existed in midst of a cinchona plantation. This plantation provided medicinal herbs for treatment of malaria. The settlement was initiated in the year 1970 when three families constructed three houses and got settled in this place. In the early half of 1970s, more people migrated to this place from Kalimpong town, Pedong, Algarh and adjacent state of Sikkim in search of an employment opportunity in cinchona plantation. This miniature settlement gradually took shape of a village which is presently known as Sillarygaon. The previous name of the village was *Mithun tar* as it was the grazing ground of the *mithun* (*Bos frontalis*) an important bovine species of north-eastern hill region of India and popularly called as the "Cattle of the Mountain". Later, the settlement was renamed as Sillary basti due to abundant growth of *Scilla* plants in the locality (perennial herbs under family *Asparagaceae*) and finally the village is renamed as Sillarygaon. The place gradually gained immense popularity among the tourist since one can get a clear view of the entire range of Kanchenjunga mountain from this place.

Presently the dwelling places of the villagers can be classified into two types- one who uses their houses in homestay business and the other who use their homes only for their dwelling. In the first case, the families reside in houses which are constructed adjacent to homestay within the same premise. In the second case the houses are individual constructed units with no homestay in immediate proximity. At the time of study, we found 17 homestays and 33 dwelling units for the local people in the village.

During the fieldwork, it was observed that all the thirty three dwelling units have a structural homogeneity. The walls of the dwellings were made of wood and the roofs were covered with aluminium sheets. However, few of the homestay owners have concreted the floors and build up walls with stone slabs. The real form of cognitive homogeneity lies in the domain of norms and values, particularly with regard to sustenance of purity-pollution and sacred-profane dichotomy. For the families of the homestay owners, the practice of

purity and pollution still sustains in the food area and waste disposal area (Khare, 1976). All the dwelling units have a kitchen which is beyond the accessibility of the tourists. Their private space of food area (both cooking and family-dining) is much secluded from the dining hall meant for the tourist, which is rather a form of public space. The members of the homestay owning families have their food in the kitchen, which for them is symbolically a pure space. The washrooms of these families, which are considered to be polluted space, are located at the periphery of the household premise at a distance from their cooking, eating or resting places.

During the fieldwork, it was also observed that the villagers maintain a character of flux with overlapping features of similarities and differences in the context of sacred-profane dichotomy in their everyday life. Before illustrating these attributes, we need to describe the narratives on the supernatural characters and practices in the village. The villagers of Sillarygaon have four religious identities, viz. Hinduism, Buddhism, Christianity and their traditional religious identity. Data were collected on the character, time, place and purpose of the different rituals performed in the village. There are two temples located in the village and a third one outside the village boundary. One of the two temples, the Hindu *Debithan* is located at the village entrance, while the second one is a Buddhist temple built in the central position of the lower tier of the village. The third temple is about two hundred meters away from the village on the western side adjacent to the path leading to the sun-set point. Apart from these three temples, there is a *Mandap* (a community hall) located adjacent to the village playground which is also used as a space of community worship. Every household has a place of worship in their home, which is also very much secluded from the view of the tourist. The different types of rituals performed by the different groups in their home are *Khepa- Sung Puja*<sup>3</sup>, Laxmi Puja and Diwali, Krishna Asthmi, *Nawaratri* and *Dusshera*. All the aforesaid rituals are performed by the head of the family or the eldest woman of the family, except the *Krishna Asthmi* which is performed by a priest who is locally called *Boon*. The community rituals that are performed in the village are *Sawan- Sankranti*, *Magh-Sankranti*, *Durga Puja*, Christmas and *Buddha Purnima*. The villagers, be they be homestay owners or not are very religious and strictly adhere to the rules of different rituals performed in everyday life. The flux in the sacred-profane domain is manifested differently between the private space of the localities and the public space of the tourist. The local people mix the profane features with the sacred features in their personal or family oriented cultural practices in a daily basis. However, a dichotomy is clearly maintained between the two for the tourist. They consider their household worship place very pious and keep away from public (here tourist) gaze. The villagers also exhibit a strong faith in the magical practices. Shamanism<sup>4</sup> is practiced in the village and the villagers strongly believed in this practice. However, they do not open up the practice

of shamanism to the tourist. It is revealed from the study that the villagers feel if the tourists come to know about this practice they may consider them to be 'backward' or 'primitive'.

*Space for Others: The homestay*

Inscribed Space focuses on the fundamental relationship between the humans and the environment they occupy. Inscribed space implies that humans "write" in an enduring way about their presence in their surroundings. Anthropologists over the years have contributed in describing the way people form meaningful relationships with the locales they occupy and the way they attach meaning to space and transform "place" into "space". The relationship between people and their surroundings involve the recognition, cultural elaboration and recreation of perceived properties of environments in mutually constituting ways through narratives and praxis (Fernandez, 2003; Rodman and Cooper, 1989). Further, this space manifests relative properties in terms of the altitude, climate, locality, view of the Kanchenjunga range, etc, which vary contextually for the homestay owning families. This in turn led to generation of social, cultural, symbolic and cultural capital (Bourdieu, 1977). It often acts as the site of power which controls the territoriality in terms of mind and money. The present research locates the construction of the new inscribed space in terms of Lefebvre's (1991) production of space where this new homestay concept has led to the generation of a new form of social space between the tourists and the hosts.

In 2008, the homestay business got kicked off for the tourist in the village when four individual constructed three homestays in the form of a joint venture, inspired by a popular local businessman named Sebastian Pradhan. Sebastian himself owned a homestay in Rishikhola and a hotel in Lava, located in the adjacent areas of Sillarygaon. All the three homestays started with allotting two rooms each for the tourists. With the increase in demand, one more homestay came up in the village so that each individual may have single proprietorship.

As more number of tourists started flowing in, the demand for homestay increased. This prompted the villagers to increase the number of rooms from two to six per homestay. In the following years, 13 (thirteen) other families also got into homestay business taking loans from peers and different public financial institutions.

The setting up of homestays for the tourists has developed a new economy for the local residents. Seasonal earnings have escalated, which in turn has led to the development of consumer behaviour for these local people. Apart from material gains, the residents have also converted their profits into capitals for further development (Bourdieu, 1977). As revealed from an interview, one of the homestay owners said "We are not selling rooms for staying for the tourists; rather we are selling the natural vegetation and the Kanchenjunga



range. If these things are not available for sell, our business will have no identity. These are our actual capital”

The newly produced space, in Lefebvre’s terms (1991), has been characterized by encounter, assembly and simultaneity between the tourist and the host in terms things, objects, works, signs and symbols which is represented through the following case of a tourist.

#### CASE OF A TOURIST

J (M, 43) arrived at homestay (3) with six other members, including two kids on 3<sup>rd</sup> November, 2014 at about 3 pm. Pick up service from New Jalpaiguri railway station was arranged for them by the owner of the homestay. On the way to Sillarygaon from the railway station, they halted at Damsung fort and Silent valley for local sight-seeing. The team had reserved two rooms for three consecutive days stay in Sillarygaon to enjoy the vibrant nature. The booking of the rooms was made by the tourist party through a travel agent 50% of the rent was made in advance; the rest of the amount was to be paid before checking out. Soon after reaching the place at 4 pm, the guests were served black tea, which was very refreshing to them after an exhausting journey. The guests were immediately provided with hot water in buckets in their wash rooms for freshening up. The son of the homestay owner advised the tourist party to visit the sun-set point, located 500 meters away. This visit to the sun set point was an extremely pleasant experience for the tourists. Soon after their return, they were served milk-tea and onion *pakora* for evening refreshment. They desired to have *roti*, potato fry, chicken curry and green salad for dinner which the first lady of the homestay started to prepare with support from other family members. Encounter in a passive form initiated from the following morning when the tourist family started expressing dissatisfaction on a number of issues. First and foremost the spot lacked any form of vibrant cultural environment as the settlement was too calm and passive for them to enjoy. Further, the infrastructural support provided in the homestay was manageable but not absolutely to their liking, particularly the cot and the other forms of home furnishings. The options for food were also not too many. They do not have any other form of recreation apart from viewing Kanchenjunga. For them this serenity is fine for one day but not for 3 days. Expressing their dissatisfaction, the group immediately decided to move to Darjeeling for further adventure. They paid off the balance in cash to the owner after a round of bargain. The guests were provided tea with biscuits and *puri* and potato curry in breakfast. The owner had to arrange vehicles for them to go to Darjeeling and the team left the place at about 11.30 am.

This case may be considered as a unique compared to multiple experiences of the homestay owning community with their everyday affair in connection with tourism enterprise. However, in majority of the cases<sup>5</sup>, the tourists prefer to board for two nights and enjoy the serenity of the nature, which in fact is a cultural capital for the villagers.

The owners of several homestays in the village have tie ups with different travel agencies and individual<sup>6</sup> investors both from West Bengal and other Indian states. Trekking groups and tourists who had been here before have helped the homestay owners to establish such contacts. It of is also observed that every year, the proprietors of travel agencies visit the place during off season to initiate or renew contracts. In this way an economic network became operative between the local people and the outer world.

*Proxemics: Spatial aspect of Culture*

Edward Hall (1968:83) established the field of proxemics as the “domain of people’s use of space as an aspect of culture”. He stated that humans have an innate distancing mechanism, modified by culture which helps to regulate contact in social situations. Spatial aspects of behaviour are tacit where actors usually become aware of the boundaries that can be violated often in culture contact situations. In proxemics, the body or the embodied space is the site of orientation with multiple screens for interacting with others and environment. Proxemics in the aforesaid area of study reveals that the cognitional structure and spatial utilization of the newly constructed homestays matches the cultural requirement of the tourists.

The data discussed earlier in context of purity and pollution, sacred-profane dichotomy manifest a cultural character of flexibility and dynamicity, which gets reflected through their spatial constructs at embodied level. On one hand, the communities differentiate their food area from the waste disposal area, while on the other this character is very much overlapping for the tourists. The homestay owners have planned spatial use in such a way that the dining hall for the tourist is sufficiently distanced from the kitchen. This is done to sustain their indigenous identity and culture traits. Overlapping of cultural practices is very much evident through their dietary planning for themselves and others in terms of so-called ‘tradition’ and ‘modernity’. For example, Bengali cuisine is mainly served to the tourists, but the homestay owning families usually prefer their local/traditional food. Some of the tourists also request for having serving local/traditional food items, and the hosts love to prepare it for them with utmost care. The owners and the employees of the home stay maintain a spatial distance from the tourists in their everyday life particularly in dining behaviour. These localites try to maintain their private space and tend to stay away from the tourist during their meal hours. However, these people at times open themselves up and share their cultural space with the outsiders. In short contradiction is clearly evident between the domains of private and public space. The traditional norms, values, sanctions and spatial identity are a matter of prestige for the local people but they try to keep them away from the tourist. The local people have faith in the magical practices performed by the village Shaman but these performances are never revealed to the tourists.

*Final observation*

The present study observes the way a small settlement of three families has gradually shaped up into a village, comprising thirty three families with 155 people over a span of 46 years. Moreover, during the course of their stay, significant alterations in economic opportunities took place with spatial sharing and utilization. This settlement is defined by the community landscape which has nurtured its opportunity of inscribed spaces through construction of homestay, fostering tourism industry.

The debate between indigenous and globalization once again comes to the surface through this empirical study. Over the years scholars have constructed culture change in a linear fashion. However, it becomes apparent from this study that this change is not always linear. For us it would rather happen through a dialectic mechanism between the so-called tradition and modernity. The localities have continuously tried to sustain their traditionally embedded or determined space through material, social and supernatural practices and thereby reproduce the sense of proxemics which has its imprint all over the community landscape. In brief, the spatial change that has been going on over the years at the community level function more like a time-space determining factor.

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## END NOTES

- 1 The case of marriages of A ( M, 26) [*Yangden Thar*] and B (F,20) [*Lopchan Thar*], which happened four years back. The names of the individuals are not disclosed hereby.
- 2 The case of homestay (1) owned by C (M, 55). His wife D (F, 48) works as the cook. C has 3 daughters and two sons. The daughters help their mother in the kitchen as well in serving food to the boarders of the homestay. They also provide room service to the boarders in absence of their brothers. Of the two sons, the elder son (E, 32) owns a vehicle which is rented out to the tourists. The daughter-in-law (F, 26) supports her mother-in-law in the domestic affairs and food management. The younger son (G, 26), renders support in the everyday affairs of the homestay, be it in terms of shopping of food items, proving room service, serving as local escort for a trek, etc.
- 3 *Khepa Sung Puja* is performed in every dwelling unit in the month of *Baisakh* to worship their household deity, locally called *Purbach*. The *puja* is performed by the head of the family and the offerings made in the *puja* are rice, a bottle of beer, a glass of milk, flowers and vermilion.
- 4 H(M 46) is a shaman who resides near the village entrance in the lower tier of the settlement. He said "all the villagers trust me and seeks help in addressing ghosts and supernatural spirits related problems. But confidentiality is maintained within the family members of the affected person. I collect resources for this practise from the nature as well as the local market located at Pedong. We the villagers don't want

- to reveal this practise to the tourist as they may consider us to be backward and primitive”
- 5 I (M, 60) owner of homestay (2) when asked about an ideal tour itinerary for Sillarygaon said “It is best to board in Sillarygaon for two nights and check out the place in the morning of the third day. There are two reasons for it- first keep the second day for sightseeing around Sillarygaon and second, if in any case the sky is not clear then the amazing view of the range of Kanchenjunga mountain may not be visible. So it is better to keep one additional day in hand.”
- 6 J (M, 65) a retired, from public servant, who is presently associated with trekking and mountaineering programmes has purchased a room in homestay (4). He rents his room on a daily basis and uses his contact with the travel agencies to continue his business. The owner of homestay (4) pays room rent as undertaken in the contract.

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## **Indigenous Land Classification and Management among the Bhunjia Community of Odisha**

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**Abstract:** This paper attempts to focus on the indigenous land and soil classification system of Bhunjia community. The Bhunjia community earns its livelihood from Sunabeda Wildlife Sanctuary, located in Nuapada district of Odisha. We adopted ethno-ecological approach to reflect upon the socio-cultural milieu and importance of the indigenous knowledge system of the land among the Bhunjia community. We used different sets of interview guidelines to gather qualitative data from different knowledge specialists belonging to the Bhunjia society. Our study revealed link between Bhunjia indigenous identity, natural resources and self-governance in Sunabeda sanctuary area. It also revealed that the indigenous knowledge system on land resources of the Bhunjias is interlinked with its clan organization and other forms of socio-cultural systems.

*Key words :* Bhunjia, land, ethno-ecology, indigenous knowledge, Sunabeda sanctuary, Odisha.

### INTRODUCTION

The survival of indigenous communities has a vital stake on land and forest resources. Prior to the intervention of the outside agencies, the indigenous people had free access into the land owned by their respective communities. Individual ownership of land was unknown in their customary rule. The right to use land in conformity with the decisions of community leader was in practice. The land-men-forest-nature and supernatural complex of the indigenous people have offered a harmonious living with the nature (Behura and Panigrahi, 2006:26-27).

Roy Burman (Roy Burman, 1986:6) while talking on the corporate indigenous rights on land opined that the formal status of ownership of land may be with an individual or a family, but customarily the other members of the lineage or clan or local group may have defined rights to access or share of the resources. Thus, it is more important to examine the pattern of access to land, rather than formal status of ownership (cited in Mohapatra, 1993:87). Bailey while referring to the Kondhs of Orissa (presently Odisha) differentiated tribe from caste in India on the principle that as member of the tribal community each tribesman had equal and inalienable access to land, whereas, a member of a caste has differential and unequal access to land, as there is an unequal division of land, based on social hierarchy: the higher the position in the caste hierarchy the greater to the access the land, the lowest being landless (cited in Bailey, 1960: 7-10). The ownership of land was, at the very beginning, endowed with the community people through ecological adjustment as well

as by the principles of economic organization of the group concerned. But it could never give a clear picture of land tenure. Thus, there is always an urgent need to understand the basic nature and circumstances of the land tenure system amongst the tribal people (Sarkar, 2006:5). According to Piddington (1952:287), there are three aspects of culture, which are of primary importance in the study of land tenure system: geographical environment, economic and law.

The indigenous knowledge system is quite extensive and by nature quite original to a particular culture group. Indigenous knowledge system is a body of knowledge built upon the experiences through generations. In a series of influential essays in the 1990s, Warren (1991) defines local or indigenous knowledge as the knowledge developed by a given community, unlike the 'scientific knowledge' that is generated by the universities, government research centers and private industries. Indigenous knowledge might include such 'technical' insight or wisdom gained and developed by the people in a given locality through years of careful observation and experimentation with the natural resources around them. For Dewes (1993), indigenous knowledge is "... related to the entire culture of a people, including its identity and spiritual and religious beliefs. While some scientists and development planners may see traditional knowledge as a means of resolving certain development problems, indigenous people see it as a part of their survival...". Indigenous knowledge, therefore, is embedded in the local cultures, is varied contextually, and is manifested in various forms ensuring the livelihood of the indigenous communities in a habitat. Although the term indigenous knowledge has various connotations (FAO, 2005:7), yet there is a general agreement that the terms like "indigenous or local knowledge", "traditional (community) knowledge", "indigenous traditional knowledge", "traditional ecological (environmental) knowledge [TEK]" and "rural peoples' knowledge" are all used for knowledge belonging to local people (UNEP, 2008: 22).

Ethno-ecologists have produced systematic data on how people in different societies categorise their environment (Conklin, 1954; Frake, 1962). Ethno-ecology based on the emic approach, what Rappaport (1963) has called 'Cognized environment' perceived by a human group (Anderson, 1973:188), usually takes into account of folk classification or native taxonomies of nature and help to explain people's adjustment with environmental problems. Most anthropological studies on traditional knowledge have been conducted within the general framework of ethno-science, which can be defined as "the study of system of knowledge developed by a given culture to classify the objects, activities, and events of its universe" (Hardesty, 1977).

This paper aims at describing Bhunjia indigenous land classification along with soil and its management system from anthropological point of view.

## MATERIALS AND METHODS

For this study, we selected the Chuktia Bhunjia populations who were settled in Sunabeda plateau, located in the North-West corner of Nuapada district (formerly Kalahandi), adjoining the interstate boundary between Odisha and Chhattisgarh. Sunabeda plateau is declared as a wildlife sanctuary. The entire Sanctuary area is constituted of only one division that is Sunabeda Wildlife Division with headquarters at Nuapada, under Bhawanipatna Circle. The Division constituted of three ranges namely, Komna Wildlife Range with headquarters at Komna, Nuapada Wildlife Range with headquarters at Nuapada and Sunabeda Wildlife Range headquarters at Sunabeda (Sahu and Dutta, 2010:4). Primary data for this study were collected from villages where Chuktia Bhunjia population were numerically dominant. These villages were Chinmundi, Senbahali, Gadhabhatta, Sunabeda, Salepada and Junapani. All these villages were situated on the plateau and hill top areas.

This study used observation and ethno-ecological approaches to examine the role of indigenous knowledge on land and soil classification and management. The data for this study were collected from primary sources. We developed an interview guideline to collect data from different categories of informants like knowledge specialists, key-informants and elderly persons, belonging to the Bhunjia community.

The Bhunjias have two major sections namely, Chinda and Chuktia (Dubey,1961; Pattnaik et al. 1984; Russel and Hiralal,1916; Sahoo,2015). The Chindas are confined to the plains and found to have been acculturated with the local caste people. On the other hand, the Chuktias live in the remote forest areas having little contact with the outside world. Chuktia Bhunjias are accorded as Particularly Vulnerable Tribal Group (PVTG) status. The total population of Chuktia Bhunjias in Sunabeda sanctuary area is 2174 (Ota et.al., 2008). However, the total population of the Bhunjia tribe in the State of Odisha is 12,350 (Census, 2011).

## RESULTS

*Conceptualization of Land and Soil by the Bhunjia community*

From the oral tradition it appears that traditionally the Bhunjias were not cultivators and used to subsist entirely on forest resources. Once their supreme deity Sunadei ordered them to get settled in Sunabeda region and cultivate land. Although they became settled agriculturists, yet they possess the knowledge of using and managing natural resources. The knowledge possessed by them is the outcome of oral tradition and through daily activities involving interaction with the natural environment. The perception of the natural environment of the community has a direct impact in their daily life.

The Bhunjias, who live inside the wildlife sanctuary have close connection with natural environment, especially with the forest. Bhunjias

conceptualise all types of 'land' (both agricultural and forest covered) as the gift of god since they consider it as the major resource for food. Thus, in almost all ceremonies they worship land as '*Dharmimata*'. Similarly, they conceptualise the forest covered hills as the abode of different hill deities, who are believed to be responsible for the growth of plants, flowers, fruits and all other natural resources. Similarly, the agricultural land as well as the village land are maintained under the control of a few other deities who are regularly worshiped for the well being of the village prosperity. The Bhunjias conceptualisation of different types of land, soil and forest are embedded in their culture and rituals. The intricate nature of the classification defines the strength of their knowledge system which can be observed from the following discussion.

A Bhunjia man named Biju Jhankar (name changed), age-52, said "I have learnt from my grandparents that, Sunadei is the main deity of the Bhunjia and after her name the valley/plateau has been named as Sunabeda. It is believed that our supreme deity Sunadei ordered Bhunjias to migrate from Dhamdagarh (located in the state of Chhattishgarh) to Sunabeda. Following the order of Sunadei, the seven brothers of Chuktia Bhunjia got settled in seven villages in Sunabeda region and occupied forest lands nearby the villages. Sunadei taught us how to cultivate paddy. The hills of Sunabeda valley have been identified as mythical heroes in Bhunjia folklore. They also provide certain sources of knowledge to explain the different creations of the nature, especially in the natural environment. For example, Bija dongar is a very famous hill in the Sunabeda valley which has a lot of mythological connections related to the origin of Bhunjia society and culture. Bija dongar is located near Thalipani and is considered as the birth place of Bhima, a mythological character. In this hill, Bhima was cultivating paddy and storing the crop in the *paira madua* of Rais dongar. 'Bhima' is the god of all water resources. So, whenever there is an episode of drought and flood, people of this region worship 'Bhima'. 'Dand' is the main god of forest and hill. The abode of the hill god is believed to be a virgin forest located at the top of the hill. The name of a hill god is either derived from the characteristic vegetation or animals found in the hill, or from a legendary event which once occurred on that hill. The hill gods are worshipped every year. On the whole, it is conceptualised by the Bhunjias that all the natural resources are the creations of Sunadei and her tutelary. So, we worship these deities before using the natural resources. Thus, the Bhunjia feels secured living in the abode of gods and goddesses. This is the greatest source of knowledge for a Bhunjia".

#### Land Classification

The Bhunjia classifies land into three broad categories, i.e., (i) forest land, (ii) home-stead land and (iii) agriculture land. These are subdivided into several categories. The indigenous term used for land is '*Khet*'.

The following diagram provides the basic idea of Bhunjia land classification:



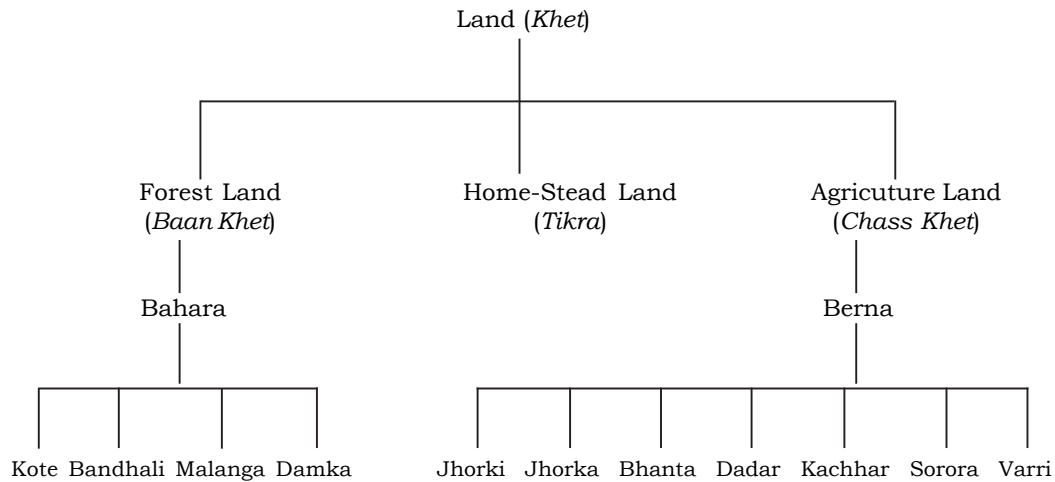


Fig 1: Bhunjia Classification of Land

### *Broad Classification of Land*

The Bhunjia broadly classifies land into three categories under which there are several sub-categories.

- (i) *Bahara*: Big in size and made into plots for cultivation. It is also used for the construction of sand bar. Some part of the land is covered with water. The land is covered with forest. It is the broader level of forest land.
- (ii) *Berna*: Medium in size and slightly downward; always covered with water used for agriculture purpose. It is the broader level of agriculture land.
- (iii) *Tikra*: It is known as up land. Here the Bhunjias construct houses and also use for practicing kitchen garden (*Bakhr*). It is the broader level of home-stead land.

Sub-classification of forest Land (*Baan Khet*) known as Bahara

- (i) *Kote*: Plain land covered with dense forest of Sal (*Shorea robusta*). After cleaning the forest patch can be used for agriculture purpose.
- (ii) *Bandhali*: Large area surrounded by hills, with water pouring from every side. It is found in hilly areas.
- (iii) *Malanga*: Surrounded by mountains and hills, plain covered with trees and stones. The length of the land is bigger than the breadth. This type of land is usually seen in the foot hill.
- (iv) *Damka*: This type of land is seen in the hills. The length and breadth of the land is small. The land is plain. Physical feature of the land is from up to down.

- (i) *Jhorki*: This type of land has slopes on both the sides and is used for paddy cultivation.
- (ii) *Jhorka*: Low land without water; large in size and plain. This type of land has three tiers- upper, middle and lower. The upper tier is smallest in size, followed by the middle and lowest tier. Paddy is cultivated in this type of land.
- (iii) *Bhanta*: Downward plain land having low coverage of trees. Pulses are cultivated here.
- (iv) *Dadar*: Plain land covered with grains, bushes and big in size.
- (v) *Kachhar*: It is situated in the river bank. The land is fertile, used for agriculture and horticulture purpose.
- (vi) *Sorora*: Length is large and covered with grass. It is situated in the river bank and adjacent to dense forest.
- (vii) *Varri*: Low land of small patches with medium type of water content.

The home-stead land (*tikra*) is not sub-classified. The home-stead land is partly used for construction of house and for kitchen garden.

#### *Land, Agriculture and Crop Relationship*

The Bhunjia economy centres on agriculture, food gathering and hunting. The increasing interest of the community in agriculture has brought forest land under the fold of cultivation. After the establishment of Chuktia Bhunjia Development Agency in 1994, the Chuktia section of the Bhunjia became acquainted with modern technology of agriculture. Simultaneously, since they live in and around Sunabeda forest, they also practice hunting gathering.

#### *Indigenous Paddy Cultivation*

Bhunjias generally follow two methods of paddy cultivation viz, Broadcast method (*Buna*) and Transplanting method (*Palha ropa*).

- (i) Broadcast method (*Buna*): This method is applied when they cultivate crops in dry upland. The paddy seed is sown during the months of April-May, on the day of or after “*Akshya Trutiya*” and is harvested during the last part of November.
- (ii) Transplanting method (*Palha ropa*): This method is applied when they cultivate in low laying wet lands where the conditions are not ideal for broadcast. The paddy seed is transplanted during the month of August and harvested during the last part of December.

Bhunjias cultivate indigenous variety of paddy. The following are the different types of paddies which they cultivate.

#### *Indigenous Process of Cultivation*

- (i) Ploughing and Manuring: The upland requires manuring every year, whereas in low land, manuring is done at an interval of two or three years before cultivation. The manuring of fields takes place in the months of March

Table 1: *Indigenous Varieties of Paddy in Sunabeda Area*

Sl. No.	Name of the Paddy	Month of Harvesting	Remark
1.	Guaji Dhan	September	Early Variety
2.	Tikra Dhan	September	Early Variety
3.	Banskathia Dhan	October	Late Variety
4.	Lalbanko Dhan	October	Late Variety
5.	Goondi Dhan	Early November	Late Variety
6.	Sethka Dhan	Early November	Early Variety
7.	Lalack Dhan	Early November	Late Variety

and April. The Bhunjias use cattle dung (*Khatu*) as manure. The paddy fields are ploughed three to four times immediately after the first shower that take place during the months of January and February. Another round of ploughing is done within a month or two after the first round. The third round of ploughing is done after the occasion of *Charu Jatra*, which takes place during the months of March-April.

(ii) Sowing: Sowing of seeds is done on or after the auspicious day of 'Akshya Trutiya'. A man carries the seeds in a bamboo basket and broadcast them evenly all over the field. The soil is then lightly turned up. Finally, a harrow (*Kopar*) is used to cover the seeds with soil.

(iii) Transplanting (*Palha Ropa*): Transplanting is generally carried out in low lying wet lands which are commonly known as "Jhorka" Khet. Before transplanting, the seedlings are grown in a nearby plot of land. The process of transplanting is carried out in the months of July and August.

(iv) Weeding (*Nondei*): Mostly the Bhunjia women are engaged in the weeding activity. The weeding is done two to three times after the "hariyali tihar" in the month of *Asadha*.

(v) Harvesting: Harvesting of crops takes place in three stages. These are: (a) reaping, (b) threshing and (c) winnowing. During the months of September-October, reaping of up-land paddy takes place. Both men and women participate in this work. Paddy-stalks are bundled and are left for two to three days in the field to let it dry in the sun light. These bundles are later carried to the threshing floor (*Kothar*). Bullocks are engaged to separate the grains from the stalk. Another technique of threshing paddy is by thrashing the bundles of paddy stalk against some wooden object on big stone. This is done in order to obtain evenly sized straw.

The final stage of harvesting is winnowing whereby chaff is removed from the grain. They use winnowing fan (*sup*) for this purpose.

#### *Common beliefs and practices in Bhunjia agriculture*

Indigenous beliefs and practices have a lot of bearing on Bhunjia agriculture. Some of their beliefs and practices are mentioned below.

a. They believe that diseases of the plants are caused when goddess Budhima becomes dissatisfied.

b. If weather becomes cloudy or foggy (*Badria or Kuhudia*) at the time of flowering of mango and mahua plantations, fruit bearing does not take place. The same is true in case of leguminous plants like, black gram, green gram and horse gram For *Ravi* crops , extreme cold climatic conditions disrupts fruit bearing. Similarly strong wind and storm (*bata<sup>sh</sup>*), thunder (*garjita*), lightning (*bijuli*) and thunder bolt (*ij*) destroy the flowers of paddy crop and hampers production.

#### *Land ownership and management*

The three categories of land (*Bahara, Berna and Tikra*) mentioned above are divided among the legal heirs (sons) of the deceased by the head of the village known as 'Siyān'.

As per the mythology of the Chuktia Bhunjia community, originally seven brothers of this community migrated to Sunabeda region from Chattishgarh. These seven brothers got settled in seven villages of this region. The following table provides the details about the seven brothers.

Table 2: *Settlement and Land Occupancy of Seven Chuktia Bhunjia Brothers*

Sl. No	Name of the Seven Brothers	Name of the Occupied Village
1.	Bada Majhi	Salepada
2.	Kokdia Majhi	Koked
3.	Jhankar	Jamugaon
4.	Pujhari	Gudagarh
5.	Sosengia	Soseng
6.	Bhoye	Sunabeda
7.	Kuarkar Majhi	Deosil

The seven brothers of Chuktia Bhunjia were the first settlers in different areas of Sunabeda region. In the subsequent stages, members of this community gradually occupied the entire Sunabeda region.

The Chuktia and Chinda sections of the Bhunjia community is sub-divided into two moieties known as 'Markam' and 'Netam' (Russel and Hiralal, 1916; Dubey, 1961; Pattnaik et al., 1984; Sahoo, 2015). There are several clans under each of these two moieties. The members of each of these clans are settled in different villages located in Sunabeda region of Nuapada, Odisha and Bindra Nuagarh region of Chhattishgarh (Sahoo,2015). According to the Chuktia Bhunjia mythology, the eldest of the seven brothers is Bada Majhi. His eldest son, whose name is Mandar Majhi, later became the chief of Sunabeda region. Later, Mandar Majhi distributed land among the different clan members of Markam and Netam moieties in and around Sunabeda region. The land

distribution was not uniform across the families. It varied with the number of able members of the family. This form of indigeneity in the land distribution pattern is observed usually in small scale societies. The indigenous communities stress on continuity of habitation, aboriginality, and often a “natural” connection to the land (Clifford, 1997). According to Merlam (2009) indigeneity implies first-order connections (usually at small scale) between group and locality. It is implicitly assumed that indigeneity refers to characteristics attributable to “indigenous peoples” (ibid.). Indigeneity is not a category that can be comfortably subsumed into the dynamics of migration of people, although these may be a part of the indigenous historical experience.

The following two tables (Table 3 and 4) illustrate the occupied areas of different clans of Markam and Netam moieties.

Table 3: *Clan-wise Land Distribution among the Chuktia Bhunjia (Markam Moiety)*

Sl No.	Clans of Markam Moiety	Occupied Area
1.	Bada Majhi	Gudagarh (Sunabeda)
2.	Kokdia Majhi	Koked (Sunabeda)
3.	Kuarkari Majhi	Deosil (Sunabeda)
4.	Pujahri	Gudagarh (Sunabeda)
5.	Mallick	Barkote (Sunabeda)
6.	Jhankar	Jamugaon (Sunabeda)
7.	Potiha	Jalmadei (Sunabeda)
8.	Suar	Chhattishgarh
9.	Dumber Boharia	Godal Bai (Chhattishgarh)
10.	Pati	Daljali (Chhattishgarh)
12.	Kendu Bahia	Kendu Bai (Chhattishgarh)
13.	Ambarukia	Mahua Bhanta (Chhattishgarh)
14.	Mati Jhankar	Khasar pani (Chhattishgarh)
15.	Deo Jhankar	Bijapani (Chhattishgarh)
16.	Majhi	Koked (Sunabeda)

Table 4: *Clan-wise Land Distribution among the Chuktia Bhunjia (Netam Moiety)*

Sl No.	Clans of Netam Moiety	Occupied area
1.	Barge	Chipdi Anchal (Sunabeda)
2.	Chhatria	Chipdi Anchal (Sunabeda)
3.	Barik	Jogimunda (Sunabeda)
4.	Bhoye	Sunabeda
5.	Dansena	Kechhpakhan Mati (Sunabeda)
6.	Disori	Sunabeda
7.	Bhawargarhia	Bhawargarh (Chhattishgarh)

contd.....

8.	Sarmat	Tetkipani (Chhattishgarh)
9.	Dalei	Ambamala (Chhattishgarh)
10.	Seth	Jampani (Sunabeda)
11.	Sosengia	Soseng (Sunabeda)
12.	Naik	Dhankaudi (Chhattishgarh)
13.	Deodaria	Dedara (Chhattishgarh)

The description in the tables exemplifies the historical clan wise distribution of land. This practice is still continuing. If we look into the distribution pattern of the lands it can be observed that different clan members who are staying together in a particular village are allotted lands in the same village. The distribution of these lands takes place in the village meeting in presence of Siyan.

In Bhunjia society there is no system of purchasing of land; rather people can occupy the land by mutual consent. If anybody wants to occupy a particular forest land, the person has to consult the Siyan of the village. The role of Siyan is to examine whether that particular piece of land is occupied by somebody else. If the land is free hold, then the Siyan allots the land to the one who wishes to occupy it.

The forest was under the direct control of the then *Zamindar* of Khariar. From the historical time, the Bhunjias were granted ownership over the use of forest products. However, they were not granted any record of rights over the land. In this context Chambers *et al.* (2004: 25) stated “.....they have knowledge about all aspects of their physical and spiritual environments which include weather systems, creation stories, astronomy, etc. Their traditional reliance on the land for subsistence and survival implies that knowledge about the land is connected with other form of cultural knowledge”.

With the enactment of the *Panchayats* (Extension to Scheduled Areas) Act 1996, it has been stressed that state legislation shall conform to the customary law, social and religious practices, and traditional management practices of community resources. Thus, even today, the principles of ‘*Panchasheel*’, laid down by Nehru in 1958 hold good — that tribal people should be allowed to live in their own way and we should work through their own social and cultural institutions (Narwani, 2004).

#### *Classification of Soil*

The Bhunjia uses the terms *Mati* and *Bhumi* for soil. The term *Bhumi* refers to the earth as a whole, whereas *Maati* refers to describe a part of the whole. The experience of living in a natural environment and their knowledge of cultivation enable the Bhunjia to categorize the types of soil in their own language, based on texture and colour. The type of soil varies in accordance with the location, and the Bhunjias are adept in identifying the characteristic of soil types (Fig. 2).

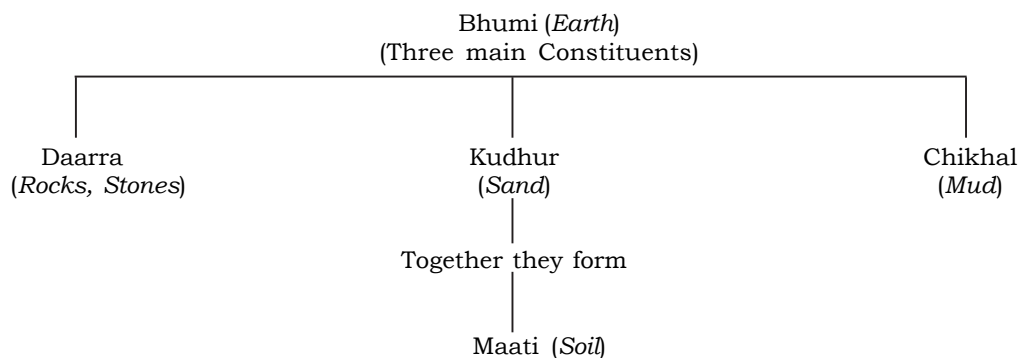


Fig 2: Soil Classification

*Bhumi* and *Maati* comprise the same constituent, yet they differ in many aspects. *Bhumi* is classified as having broader ramifications, while *maati* comprises more specific characteristics. This leads to the next stage of systematic classification. The following types of soil are identified by the Bhunjias in the study area on the basis of texture and colour:

*Classification of soil on the basis of texture*

- (i) *Khalia Maati* (Mud Soil): This type of soil is clayey found in plain areas and used for making earthen pot.
- (ii) *Kudhrain Maati* (Sandy Soil): This type of soil is sandy in nature, found on the banks of river and stream, suitable for cultivation.
- (iii) *Khatu Maati* (Loamy Soil): It is a kind of loamy soil and considered the best for agriculture. This soil is rich in organic nutrients with a mix of dung. It is found in homestead, mid and upper parts of the hills.
- (iv) *Daarra Matti* (Rocky Soil): This type of soil is a mix of small stones and rocks suited for the construction of house and roads. This soil is available on the foot hill.
- (v) *Bhud Maati* (Ant hill Soil): It is a type of soil formed by the ant and white ant. This type of soil is not used for any purpose and is found areas all over the area.
- (vi) *Dadhilo Maati* (Roasted Soil): It is black in colour and not used for any purpose This type of soil is available all over the area.
- (vii) *Sukha Maati* (Wet Soil) : This type of soil is wet in condition and used for polishing mud walls of house, construction of roads and houses. This type of soil is available in plain areas.

*Classification of soil on the basis of colour*

- (i) *Lal Maati* (Red Soil): This is a red coloured soil consisting of small granules of stone, probably laterite. It is used for polishing and decorating mud walls of houses. This type of soil is available in the hills and plain lands.

(ii) *Dha Maati* (Deep Red Soil): This is a deep coloured red soil used for polishing and decorating mud walls of houses. This type of soil is available on the foot hill.

(iii) *Pyuri Maati* (Saffron Soil): It is saffron coloured soil, mostly used for saffron-washing of the mud walls of house. This type of soil is available in plain areas.

(iv) *Chui Maati* (White Soil): It is white coloured soil used for white washing the mud walls of a house.

(v) *Pata Maati* (Red-ochre Soil): It is red-ochre soil, soft in texture and is used for washing and decorating mud walls of house. This type of soil is found in plain areas.

#### *Soil Fertility Management*

Multiple cropping is an indigenous practice of agriculture. It improves soil fertility. The Bhunjias practice multiple cropping to yield different types of crops at different times of the year. For example, the maize and onion are the prime crops in Sunabeda area. The cultivation of these two crops improves the fertility of the soil. They cultivate maize in the rainy season, and onion and potato in the same land during winter. Crop residues are deliberately left by the farmers on the cropland to increase soil fertility. For example, straw of paddy, leaves of tree, residues from cereals (maize) and pulses are left in the agricultural land to improve the fertility of the soil. In addition, the dumping of cattle dung (*Khatu*), ash and household trash on croplands is a common practice among the Chuktia Bhunjia. Crops like black gram, green gram and horse gram are grown for green manuring. Green manure crops are grown in *Bhanta* and *Kachhar* types of agriculture land where the soil is sandy (*Kudhrain*) and loamy (*Khatu*).

#### *Knowledge and practice for the management and conservation of land resources*

Although the indigenous tradition of conservation of land resources has partly been affected by outside influences, certain aspects of conservation are embedded in the original customs. One can distinguish between religious and habitual aspects in examining the interaction of the people with nature. Religious conservation practices are adhered to by the community as a whole, i.e., all members are motivated by the same ideas and beliefs, and therefore, exhibit a collective religious desire to maintain and conserve natural resources. Alternatively, it can be argued that this continuing unity is legitimized by the myths of the clan or by linking them to the origin of the community.

The Bhunjia believes that Sunadei is the original source of inspiration for the conservation of natural resources and this practice will continue as long as the beliefs and myths are strictly followed.



The following are some examples that may substantiate how religious belief helps in soil conservation. Overall the Bhunjias consider 'dand' as the hill god who lives as 'Sunadei'. This god acts as protector deities.

1. 'Deolaha' is a type of forest cover which the Bhunjias believed to be the abode of gods and goddess. The community members refrain from chopping or felling of trees and in organising common activities at that place. They believe that in case of a breach of such practice, the forest deity would become annoyed and cause harm to the people.
2. The Bhunjias demarcated some part of the forest for the abode of the 'Dankur' (*witches*). This particular place is also demarcated as the cremation ground (*masan ghat*). This place is also refrained from public activities. People visit this place only to perform death rituals in the presence of priest or shaman.

The religious principle, taboos and proscriptions are components of customary conservation practices among the people. The principles of traditional management have never been codified by the Bhunjia. Thus, the Bhunjias motivation in the quest of land and forest conservation is rooted in their belief systems and cultural tradition. If anyone in the society violates traditional conservation practices then the individual will be fined with 5kg of sundried rice and one he-goat at the occasion of Budharaja jatra.

In addition, the enactment of Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, which subsequently became a law from January 1, 2008 helped the indigenous communities, including the Bhunjias to establish their rights over the forest. This Act subsequently came into law from January 1, 2008. The Act not only grants the forest rights but also gives forest communities a primary role in forest management. It is an act to rectify the historical injustice to the forest dwellers who are integral part to the very survival and sustainability of the forest ecosystem (GoI, 2008). The state of Odisha finally adopted the language of participatory forest management. The Government of Odisha, recognised the Bhunjia customary practices of land holding and management in and around Sunabeda sanctuary area and allotted FRA claim certificate (GoO,2018).

Since the year 1987, when the Brundt land report on "Our Common Future" highlighted the overriding importance of sustainability in matters of environment and development, indigenous people and their knowledge have been ascribed a prominent position (IUCN, 1995). Later, the United Nations conference on Environment and Development held at Rio de Janeiro in 1992 acknowledged indigenous people and their local traditional knowledge as important actors in combating deforestation (Jena et al., 2006: 13). Thus, the international and national agencies should come forward in encouraging and accrediting indigenous knowledge in the conservation of environmental resources.

## CONCLUSION

The present research project is in consonance with what Ramakrishnan (2001:18) viewed: "In a developing country, the traditional ecological knowledge (TEK) base of human societies living in biodiversity-rich areas has always been a key consideration for sustainable management of natural resources and societal development". This research revealed the link between Bhunjia indigenous identity, planning and management of natural resources and self-governance tradition and the enactment of PESA ACT, 1996 and FRA ACT, 2006, at least in Sunabeda sanctuary area wherein the survival and livelihood of the community are well-established.

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## **Ethnographic Notes on Nadars of Tamil Nadu with Special Reference to Marriage Rites**

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**Abstract:** This article focuses on the marriage rites and their significance in the social life of Catholic Nadars of Tamil Nadu. Nadars are identified into two major categories - the northern Nadars who are the residents of Virudhunagar, Madurai, Theni and other cities of Tamil Nadu; and the southern Nadars who are the inhabitants of Thoothukudi, Tirunelveli and Kanniyakumari districts of Southern Tamil Nadu. The marriage practices followed in various regions of Tamil Nadu underline the socio-cultural significance of marriage in life cycle ceremonies performed at the family level. In the present study ethnographic method was used in collecting data on (i) kinship terminologies among Roman Catholic, (ii) marriage alliance (preference, prescribed and practice) and (iii) practices connected with marriage. The paper also emphasizes the role of church and parish council in marriages performed in the village.

*Key words :* Marriage, Kinship, Catholic, Nadar, Tamil Nadu

### INTRODUCTION

Marriage is a social institution which leads to creation of family as the basic unit of society. One of the primary functions of the family is to procreate biologically and extend socially. Family is the basic unit of the society in which a set of people related by blood, marriage (or some other agreed-upon relationship), or adoption share the primary responsibility of procreation and caring for members of society.<sup>1</sup> It is guided by a number of customary rules to be followed in the society. It also has some functional roles to play in conformity with social regulations. Broadly, a family may be conceived of taking two forms - nuclear and joint or extended. Nuclear family or joint/ extended family may assume a kin group character because of their assigned position within the kinship network. According to Levi- Strauss, incest and associated taboos that create the rules of endogamy and exogamy have a structural significance. In folklore also, studying kinship, family and marriage signifies the study social structure, which is one way of understanding a specific group of people in their specific context. The studies on kinship and marriage are not simply to record the kinship terminology and generalize it as a broad structural category; it also speaks about the cultural meaning of kinship and its social functions.<sup>2</sup> This article, based on ethnographic data collected from the field, gives a broad outline of Catholic marriage rites among the Nadars of Tamil Nadu.

Nadars were referred as *Shanar* too. However, the correct form is said to be *Shandrar* derived from Tamil word *Sal*. The expression *Shandror* or

*Shandravar* was derived from the same root.<sup>3</sup> Nadar community is not a singular class or a monolith, but an assortment of sub-divisions and classes of different origins, which in course of time, came under a single genre, Nadar. According to them, the original name of the community was *Chandror* or *Chandrar* which in course of time became Shanar.<sup>4</sup> The Nadar society is bound by socio-cultural practices of their own making, which dominate their everyday life and which may find a place in folklore and cultural studies. Nadars are broadly divided into two major groups such as Nadan and Nattathi Nadar. Nadan comprises with two sub groups: land lords (*Nilamaikkaran*) and *Karukkupattai*. The people of *Karukkupattai*, a sub-group of usually toddy tappers, are also engaged in coconut cultivation. Moreover, they contribute labour to the landlords (Nadan in Kanniyakumari region; *Nilamaikkaran* in Tirunelveli, Thoothukudi regions) on payment. Nattathi Nadar comprises of *Kodikkal* and *Melnattan*, who were not directly studied. The present article has its main emphasis on the marriage practices of *Karukkupattai* Nadars of Tamilnadu.

Nadars may be classified into two major religious categories as Hindus and Christians. The Christian Nadars are mainly concentrated in the southern districts of Tamil Nadu while the Hindu Nadars are found dispersed throughout the State. Notably, among the southern Nadars Christian Nadars are more in number. Again, these two major categories are sub-divided into (a) Christians distributed into Catholics and Protestants (Church of South India); (b) Hindus as *Amma Vazhi*<sup>5</sup> and *Ayya Vazhi*<sup>6</sup>.

Nadars, especially southern Nadars of Tamil Nadu, are distinctively different from each other at the sub group level in terms of marriage practices, group representations within the caste and religious practices followed. With their conversion to Christianity, changes have occurred in the performance of their traditional rituals and ceremonies. The transformation is particularly noticeable in the performance of their life cycle ceremonies and rituals practices. Among the Nadars, the crucial factors which influence their social life are family, religion and regional attachment. Emphasis has specifically been given on these aspects during the study.

#### MATERIALS AND METHODS

Since the objective of research is to arrive at a solution for a given problem, the available data and the unexplored aspects of the problem have to be related to each other first. Fieldwork in folklore and folk life studies has an importance of its own. A number of methods were applied in the field while conducting the study such as interviewing method in which directive and non-directive interviews were done, documentation method based on analysis and interpretation of the field data collected, which include marriage practices, family level functions of the Nadars. These were also documented with the help of audio- visual records, through dialogical exercises and discussions

between informants and the researcher. Such exercises could ultimately generate self-reflective knowledge.

#### *The Data Sources*

The sources of the data collected belonged to two categories, namely, primary and secondary. The data derived from the fieldwork through documentation of life styles and personal narratives could be used as primary data. The data used in his article were taken from fieldwork conducted by the author in the districts of Tirunelveli, Thoothukudi and Kanniyakumari between May & June of 2012; June of 2013; and April & May of 2014. Fieldwork was carried out strictly following the rigors and prescription of ethnographic method of participatory observation, supplemented by interviews (unstructured) by initiating dialogues. Most of these data are qualitative in nature. Some quantitative data have, however, been used to mention the number or frequency of occurrences. Apart from all these, data from the written sources including books and works on the Catholics and Nadars in particular, both published and unpublished, have been used as secondary sources.

### RESULTS AND DISCUSSION

#### *Catholics in Tamil Nadu*

Christianity in India is believed to be 2000 years old. The colonial age brought a large number of Portuguese, Dutch, British and Italian Christian missionaries to Tamilnadu. Priests accompanied them not only to minister the colonizers but also to spread the Christian faith among the millions of non-Christians in Tamilnadu. Immediately after the arrival of Portuguese missionaries, a small section of the local people known as *Paravas*<sup>7</sup> became Christians in 1536-1537 in Kanniyakumari district.<sup>8</sup> Reference may be made of *Vadakkankulam*<sup>9</sup>, a Christian village situated in the southern Tirunelveli region, wherefrom a *Shanar*<sup>10</sup> woman known as *Sandai Nadathi*<sup>11</sup> came to be regarded as the actual founder of the village.<sup>12</sup> In other parts of Tamil Nadu, Christian populations are found among various caste groups such as *Vanniyar*, *Vellalas*, *Kallars*, *Praiyars*, *Pallars*, *Gounders*. Studying religion is more crucial to understand the society where changes of affiliation occur regularly. Religion has the tendency to associate the community with their native thoughts as reflected in social behaviors. This also remains true for Christianity. Roman Catholic marriage practices in various regions of Tamil Nadu, namely, southern Tamil Nadu (Kanniyakumari, Tirunelveli and Thoothukudi districts), central part of Tamil Nadu (Madurai, Ramanathapuram, Sivagangai, Theni, Dindigul, Trichy, Tanjore and Nagapattinam districts), western part of Tamil Nadu (Coimbatore, Nilagiri, Salem and Dharumapuri districts) and northern Tamil Nadu (Vellore, Cuddalore and Chennai districts) have native components under Catholic denomination. As the southern Tamil Nadu (Kottar diocese, Kuzhithurai diocese, Thoothukudi diocese and Palayamkottai diocese) has more Roman Catholic Christian population, most

of the data have been taken from the south in the present discussion. The following list shows the spread of Catholic population in Tamil Nadu.

Diocese Name	Denomination
Chingleput	Catholic Rite
Coimbatore	Catholic Rite
Dindigul	Catholic Rite
Kottar	Catholic Rite
Kumbakonam	Catholic Rite
Kuzhithurai	Catholic Rite
Madras-Mylapore	Catholic Rite
Madurai	Catholic Rite
Ootacamund	Catholic Rite
Palayamkottai	Catholic Rite
Ramanathapuram	Catholic Rite
Sivagangai	Catholic Rite
Thanjavur	Catholic Rite
Tiruvhirappalli	Catholic Rite
Thoothukudi	Catholic Rite
Vellore	Catholic Rite

Table 1: *Dioceses Lists of Tamilnadu*

#### *Kinship terminology of Catholic Nadars*

Collecting folk terms of kinship is not only meant for classifying terminologies study. The process also helps in separating marriageable from the non-marriageable ones in the wider context of society. The folk terms of kinship have been mentioned in the following chart with their analytical categories:

Referents	Folk terms of Kinship
FFFF	<i>Muppattan (Uravathan)</i>
FFF	<i>Poottan</i>
FF	<i>Thatha/Pattaiya</i>
F	<i>Appa/Ayya</i>
FM	<i>Pattiyamma/Valathamma</i>
FeB	<i>Periyappa</i>
FyB	<i>Sithappa</i>
M	<i>Amma</i>
MeZ	<i>Periyamma</i>
MyZ	<i>Sithi/Chinnamma</i>
MB	<i>Mama/Muraimaman/Thaimaman</i>
FZ	<i>Athai/Mami</i>

HM/WM	<i>Athai/Mami</i>
eB	<i>Annan</i>
eZ	<i>Akka</i>
yB	<i>Thambi</i>
yZ	<i>Thankachi</i>
MBeS	<i>Atthan/Machan</i>
MBeD	<i>Manini/Anni</i>
MByS	<i>Machinan</i>
MByD	<i>Kozhunthiya</i>
eZH/yZH, WeB/WyB	<i>Atthan/Machinan/Mappillai (ms)</i>
yZH, HyB, MByS, FZyS	<i>Kozhunthan (ws)</i>
WeZ/WyZ, eBW/yBW	<i>Nangaiah/Kozhunthiyal (ms)</i>
HeZ, HyZ, HeBW/HyBW	<i>Nathanar/Orpadiyal/Sambanthi (ws)</i>
SWF/SWM, DHF/DHM	<i>Sambanthi</i>
S	<i>Makan</i>
D	<i>Makal</i>
DH/ZS (ms), BS (ws)	<i>Marumakan</i>
SW/ZD (ms), BD (ws), BSW (ms), ZSW (ws)	<i>Marumakal</i>
SS, DS	<i>Peran</i>
SD, DD	<i>Pethi</i>
SSS	<i>Kolluperan</i>
SSD	<i>Kollupethi</i>
SSSS	<i>Elluperani (uravathan)</i>
SSSD	<i>Ellupethi (uravathan)</i>

Table 2: Kinship Terms of Nadars

The above-mentioned terms of kinship are almost invariably used by the Roman Catholics in all regions of Tamil Nadu. Though there are small differences in calling and addressing terms, the presence of ethnic terms/folk terms in the kinship terminological system can very well be determined.

*Marriage alliances of Nadars: Prescription, preference and practice*

Kinship behavior pattern differs from one region to another and its community representation also varies accordingly. In general, among the Roman Catholic Christians, three marriageable relations are found. They are EZD marriage, FZD marriage, MBD marriage. Getting married with close relatives or cross cousin is prohibited by the Church. Although it is prohibited, many cases from various parts of Tamil Nadu suggest marriage with cross cousins or close relatives (especially EZD). And another recent phenomenon found in the field is getting married to another denomination groom/bride. At the same time, for seeking marriage partners known denomination or same denomination is given priority by both families.



*Morphology of marriage rites*

Marriage practices are structurally organized by the ritual process in the following manner: selection and confirmation [seeking bride/groom, adorning flowers (*Poovaihal*), betrothal]; feast given to bride/groom by the relatives [making the bride and groom prepared for the marriage (physically)] followed by second confirmation [with bride wealth (*Parisam Poduthal*)]; further confirmation (*Naazhi Veedu*); seeking blessings ceremonially [worship at family god, ancestral tomb] and through maternal uncle's ritual ; blessings of the elders and agantes sought separately (*Anantharam*); marriage starts with receiving groom and the relatives (*Ethirmalai santhanam*), *AlathiSelai* (*Vaadavilakku*), *Tali* as a symbol of tying the knot, transition and transformation [first food to couple (milk and plantain)], *Aarathi* (waving lighted camphor), food given by groom's mother to the couple (milk and plantain), honoring the agnates and affine [*Madippalakaram* (Mothers-in-law)], dowry (gifts to groom), *surul* (to agnates and affine), strengthening relationships between new affine and existing agnates [performing oil ritual, second visit to bride/groom's place known as *Maru veedu*], seeing the kitchen/mothers-in-law meet, feast to couple); inclusion of a new family in the community/society.

Selection of the bride and groom (*varan parthal*) – involvement of the larger community:

The process of searching for bride and groom starts with the initiative taken by the relatives or through marriage brokers and matrimonial advertisements. But in cities like Chennai, Coimbatore and Madurai bride and bridegroom searching takes place through matrimonial which come in various print media and as online matrimonial services. These are often arranged caste wise as well as on the basis of religion. Matrimonial preferences cover a wide range of categories as follows: Adventist, Anglican / Episcopal, Apostolic, Assyrian, Assembly Of God (AG), Baptist, Born Again, Brethren, Calvinist, Catholic, Church Of God, Church of South India (CSI), Church Of Christ, Congregational, Evangelical, Jacobite, Jehovah's Witnesses, Jewish, Roman Catholic, Latter Day Saints, Lutheran, Malankara, Marthoma, Melkite, Mennonite, Methodist, Moravian, Orthodox, Pentecostal, Protestant, Presbyterian, Seventh day Adventist, Syro Malabar, Syrian Catholic.

*Betrothal:*

On the day of betrothal, bride's family and groom's family gather at bride's house. Groom will come with many gifts for bride along with his relatives. Once he reaches bride's home he is received by bride's father and sometimes by her brother. As soon as they enter into the bride's house, groom's sister makes bride ready for the betrothal function. Both maternal uncles (of bride and groom) are invited and honoured in the function by giving them place for conducting the betrothal. Priest takes the role for conducting betrothal in Catholic families.

*Feast given to bride/groom*

After the date of marriage is fixed, there are some pre-marriage ceremonies to be performed in specific cases and covering such areas as *Mukoortha Nel Avippu* (preparing new paddy for the purpose), *Ayanam Kodukkal* (in Kanniyakumari district)/*Asanam Koduthal* (Thoothukudi and Tirunelveli districts). In general, *Ayanam* or *Asanam Koduthal* is a function conducted symbolising 'serving/offering rice to other'. It takes place before one month or fifteen days of marriage. Thereafter, bride/groom will be felicitated by close relatives (*Aruvakkar* or *Uravinmurai*) with a feast.

*Wedding feast (Asanam):*

*Asanam* is a feast given before the day of wedding. It is known by various names in different region such as *soru vaippu* (in Kanniyakumari district), *muhoortham* (in Tirunelveli and Thoothukudi).<sup>13</sup> All the relatives are invited to attend this feast by the families of the groom/ bride. The main purpose of this feast is to organize all relatives in groom or bride's house before the day of marriage. In earlier days relatives used to organize themselves at their relatives' places and prepare themselves for taking active part in marriage. This is also considered to be a privilege of the relatives, especially of agnates.<sup>14</sup>

*The role of groom's sister (pezha petti eduthal):*

Groom's sister has a customary ritual to perform.<sup>15</sup> She has to carry gold (*thali*), *sari*, and cloths, garments meant for the bride in a box of prescribed category<sup>16</sup>. Groom's sister who is supposed to do this ritual plays the main role in getting bride ready for the marriage. She has to accompany the groom till the marriage rites come to an end. The role of groom's sister is known as *pezha pettikari/pon pooti*. *Pezha petti* is a small box which is used to carry the wedding chain (*thali*), *sari*<sup>17</sup> etc.<sup>18</sup>

*The role of groom's brother-in-law (tholathaan):*

*Tholathaan* is an honorary position given to groom's brother-in-law during the marriage. This privileged position goes particularly to groom's sister's husband. As the *pezha petti* privilege goes to groom's sister, her husband takes this role of performing *Tholathan*. He will be accompanying the groom till the *tali* tying event is over. After that he may not remain with the groom. As the mother stays aside, the groom is led to the site by his brother in-law (*Thozhathaan*).

*Tali:*

It is an ornament, which is tied on bride's neck by the bridegroom on the day of marriage. It consists of a circular piece of gold, fastened by either a gold string or a string of cotton dyed yellow with turmeric. The Hindus engrave on it the proboscis and pendant their religious symbols. It is believed to be a thing of crucial importance to the married woman to hold. The history of *tali* is recorded as "early days when people started to tie tali they used to tie it in a

palm leaf. They made the palm leaf look like a dollar and then tied it. Then it was changed into yellow color thread dyed with turmeric. After that it was changed in the form of metal like gold when gold ornaments and later diamonds made their appearance. Now it is of primary importance in marriage. It is to be noted that if groom ties tali of above nine *pavun*<sup>19</sup> that will show his status. According to the goldsmith, a woman's caste as well religion can easily be identified on seeing the *thali* (wedlock) and design/symbol used in it. Catholic Christians wear tali in which the image of the Holy Spirit or cross is there at centre.

*Visiting groom's house (veedu kanuthal):*

As soon as *thali* is over, the couple leaves for groom's house in the evening. As a customary practice, bride is given vegetables, grocery items for cooking. In earlier days dry fish curry was to be served by the bride. The customary duty for making curry goes to the bride.<sup>20</sup> Then it has to be served to the groom and all the agnates of groom. Meanwhile, bride's family visits groom's house. The whole event is known as *Veedu Kanuthal*. Though the practice of *Veedu Kanuthalis* is seen as a ritual in marriage, in practice it may not to be, particularly the offering of dry fish curry to groom's agnates.<sup>21</sup>

*Agnatic surul (Makkamurai surul):*

Agnatic *surul* system signifies a ritual in which groom's agnates<sup>22</sup> are honored at the dais where family members gather. It may be given in the form of cash/ornaments/gold. It should be given by groom or groom's family. As it is observed as one of customary practices in marriage, agnatic *surul* is a ritual for the agnates to strengthen collateral relationship.

*Affinal surul (Marumakka murai surul = son-in-law surul):*

This *surul* means honoring the relatives in which the family members such as MBS and FZS, bride's ZH are felicitated. It is a customary practice to honor the bride's MBS, FZS and eZH at the time of marriage. It is celebrated by the bride's affinal relatives. The practice of gift giving is found in all the marriages of Tamilnadu, especially in south Tamilnadu, where it is observed to strengthen solidarity among relatives by honoring them in public. It can be divided into two categories: what the family receives from the relatives whom they have already given, which is known as *Moi*.<sup>23</sup> Then among the family members, those who actually conduct the marriage<sup>24</sup> will share some gifts with their agnates and boys<sup>25</sup> who have customary right to marry bride's future girl. This practice is known as *surul*.<sup>26</sup> *Moi* can be given in all life cycle ceremonies performed in family. But *surul* is restricted only to marriages. *Moi* is a practice seen in all the life cycle ceremonies. In *Surul* is a system only agnates and affines participate. Others do not take part in this practice.

The primary functions of *surul*:

1. Representation by the relatives
2. Recognition of the relatives in the public sphere
3. Displaying family agnates and affine in public
4. Reunion of the family members
5. Introducing the respective agnates, affinal relatives to the bride or groom
6. Performance of rituals/ceremonies irrespective of relatives' places of attachment to consolidate extended family level ties
7. Giving the *surul* share to the agnates as a mark of solidarity, which is also considered as the latter's right and therefore mandatory.
8. Emblematic honoring of agnates of groom's family.

*The importance of maternal uncle in family:*

Maternal uncle is locally termed as *thai mama/nallappan*. He is given the next position to father.<sup>27</sup> The northern Tamilnadu Catholic Christian practice of marrying maternal uncle is not seen among the Catholic Christians of southern districts. In other parts of Tamilnadu marrying eZD is often customarily recognized. When a child is born, mother gives her child to her elder brother to hold the child for a while. It is considered good for the child as it is blessed by the maternal uncle. During the marriage, bride and bridegroom should be blessed by maternal uncles. In girl's puberty ceremony maternal uncle's presence is also found to be very crucial. Even though the parents might have some conflict with him, mother has to invite him for the function. Inviting maternal uncle for the marriage or any other functions of the family is considered to be prosperous for the child. When the invitation is issued to maternal uncle, it should be accompanied with coconut, betel leaves, areca nut, bananas, and saffron. Sometimes, he is invited with a symbolic gesture of presenting some amount of rice along with the invitation letter. It shows that person who has been invited should not go without participating in the feast.

The role or presence of maternal uncle is significant in all family functions such as puberty, marriage. If the relationship with maternal uncle is not maintained properly, then maternal uncle may not take any step on his own to establish good relationship with sister's family. If he is invited to a function more as an obligation or formality, he may not participate. In such a case, to show the sense of urgency of his presence an arecanut cutter is kept on the grindstone in the place where maternal uncle is supposed to sit. Sometimes, coconut is also kept in the place. Only then, after his presence is assured, other ceremonies will take place. It shows the importance of the presence of maternal uncle and his participation in the ritual.<sup>28</sup>

*Taking rice to elders (Eduppu choru Eduthal/Petti choru)<sup>29</sup>:*

At present, in all villages of districts, especially those in southern districts of Tamil Nadu such as Kanniyakumari, Tirunelveli and Thoothukudi, the practice of *eduppu choru/petti choru eduthal* is followed. Those who have not attended the function and in the dinner are not entitled to provide meal to the person who has attended the function. It is obligatory for all villagers and families to participate. Though it has lost its importance in towns and cities, some of the villages still continue with this practice. The interesting thing is that among the people from Thoothukudi and Tirunelveli districts when parents give dowry to their daughter, along with they give a vessel known as *eduppu choru pathiram* to the groom's family.<sup>30</sup> As it is given as *eduppu choru pathiram*, whenever a function is organized in a relatives' family the vessel should be used to take food for the person who has not attended the function.

*The role of Church in marriage rite*

Apart from kin's roles in life cycle ceremonies, roles of the parish council and priest are no less important among the Christians. The practice of mixed marriage and punishment for elopement are also important developments at the community level.

*Parish Council:*

In Roman Catholic system every parish has a council consisting of several council members headed by the parish priest as village head. As a superior, he has the authority to take decisions on the activities of the parish council. The primary duties of this council are, conducting village festival by collecting taxes, conducting other community gatherings, giving advice to all the societies and associations in parish, taking up welfare plans for youth and aged in the parish by mobilizing various committees and so on. After consultation with the village council and parish council, marriage is conducted in the Church by the priest. The priest may take an active role in certain cases where parish council is in need of his help.

*Priest's role in marriage:*

As soon as the betrothal is over, the groom has to bring a letter from his parish council<sup>31</sup>, which may be given to the bride's parish. Once all the formalities are completed, marriage is conducted. For issuing this letter to the groom, he or his family needs to fulfill the condition that all dues to the village<sup>32</sup> have been cleared by them. After that, the Church issues the letter. Then the bride and groom are allowed to take classes on marriage for one week, which will be conducted by the concerned Catholic diocese. The letter received from the groom's parish and certificate for which he attended the marriage class, both have to be submitted and shown to the bride's village parish priest. The letter gives the details of groom's religion and his activities towards the Catholic community and his family. Finally, he gets permission for the marriage. If the

services rendered by him as a Catholic is not satisfactory, the letter and certificate will not be issued for marriage. Apart from that, priest will also ask the bride and groom about their wish to be married or not. If anyone of them is not willing to get married, priest has the right to cancel the marriage. There is an arrangement in the Catholic marriages to make announcement about the marriage in the Church for three consecutive Sundays prior to marriage. If anyone has opposition or adverse opinion about the groom and bride, he will be allowed to convey it to the parish or priest in writing and the priest can take proceedings against them or cancel the marriage with the consultation of parents of the bride and groom. This announcement is locally called *parai vasithal*. This *parai vasithal* has to be announced for three weeks in the concerned parish of bride and groom.

*Mixed marriage:*

Marriage is governed by both Civil and Church law. Just because a marriage is valid in the eyes of the State does not make it valid in the eyes of the Church. The reason is that the Church understands marriage to be an important event and it identifies various requirements to be met according to its Canon law, the law of the Catholic Church, which must be abided by for a valid Catholic marriage.<sup>33</sup>

*Marriage with non-Catholic Christian:*

If a Catholic wants to marry a non-Catholic, he/she needs Church permission.<sup>34</sup>In southern Tamil Nadu very often it is seen persons getting married with non-Catholics by converting them into Catholics after getting baptized. If a Catholic groom marries a baptized non-Catholic bride, she has to be from Catholic family. The law of Roman Catholic Church will not allow for marriage following Catholic practices unless the bride gets converted into a Catholic. The same is applicable to groom. For the bride/groom who follows traditional Hindu practices, they are allowed marriage with Roman Catholic groom/bride, rather than sticking to Christianity matrimony.

*Marriage with non-Christian:*

Marriage between a Catholic and a non-baptized person is considered as not sacramental. But the Church under special conditions may consider such a marriage to be valid and acceptable. St Paul wrote: "The unbelieving husband is made holy through his wife, and the unbelieving wife is made holy through her husband".<sup>35</sup> According to Canon Law, "A Catholic marrying a non-baptized person needs a dispensation for the marriage to be valid".<sup>36</sup>

*Punishment for elopement:*

There was a practice of giving punishment to those people who had eloped and married without giving notice to the Church. Even some decades back many such cases were recorded and punished for elopement. The punishment

for the couple was, they have to hold the cross during holy mass for three weeks. Then only their marriage will be accepted by the Church as well as by the village council.<sup>37</sup> This practice of giving punishment could materialize only after the direct intervention of diocese, the replacement of which was possible only when the parents and couples apologize in public in writing. The underlying meaning of punishment was that one should not get married without the knowledge of the parish council. By giving this punishment, it is understood that the village and the Church council could establish their control over family life.<sup>38</sup>

#### CONCLUSION

Although Christianity has brought many changes in the life of the people, when there is a festival or any family function their traditional legacy is seen to be maintained through the performance of all ceremonies and rituals. In general, Tamil kinship pattern comes under the Dravidian kinship system. Accordingly, the kinship terms referred by them have many commonalities at pan South India level. Although Catholicism was accepted by people, they never gave up their traditional practices which they had in the past.<sup>39</sup> The life cycle ceremonies and social control exercised by the village council on them show community's relative subordination. On the other hand, such a development may indicate community assuming new meaning and functional domain. The most notable point which goes against the interest of a community like Nadar is that the role played by castes. In Indian society caste has a deterrent effect. In the social interaction though one is from the same caste group, by religion he or she is denied of having marriage alliance with another sect of religious group of the same community. The principles of kinship terminology may apply to kinship behaviors controlling marriage. But when it comes to marriage and social relationship, caste-based kinship appears to be the biggest obstacle to community expanding its domain and at the same time continuing with its traditional legacy. Such a situation can be observed at the State level, especially in the southern State of Tamil Nadu where coerciveness of caste and caste-based religion does occur. It is also to be noted that there is a lesser possibility of having marriage alliance with other Christian groups as it is the case with any other religious group. The caste system is not only the reason why wedding should be made within the traditional community. Here, relationship based on religion is also stressed by denying other Christian denominations any recognition as other religious sects are unknown and new to them. The net effect of this may be found in Catholic practices reflecting a heterogeneous culture derived from various groups. Thus, it has been observed that for celebrating religious ceremonies people need to have relied on Church and parish council and for conducting life cycle ceremonies they need to have followed the practices of caste continuing from the past till today. Whether it is a happy blending, future will tell.

## ENDNOTES

- 1 Richard T. Schaefer. *Sociology: A Brief introduction*. DePaul University. Pg. 291.
- 2 Vatuk, Sylvia. 1983. pg. 58.
- 3 Nagam Aiya, V. (Ed.). *The Travancore State Manual*. Vol. II. Trivandrum: Government Press. 1906. Pg. 392.
- 4 Sinnakani, R. (Ed.). *Thoothukudi District Gazetteer*. Vol. I. Chennai: Commissioner of Archives and Historical Research. 2007. Pg. 233.
- 5 *Amman* worships Mother goddesses such as Mutharamman/Muthalamman, Isakkiyamman, Muppidthiamman, Ujjaiyini Makali, Shenbakanachiyar, Sivananainchi, Virgin (*Kanni*) worship and women ancestors worship of Ananthammal of Kazhukumalai are seen among the *Amma Vazhi* Nadars.
- 6 *Ayya Vaazhi* is another religious denomination which followed by Nadars of Tamilnadu. It was originated in Samythoppu village situated in Kanniyakumari district and its founder is known as Ayya Vaikundar.
- 7 Fisher folk
- 8 <http://www.kottardiocese.org/History.aspx>
- 9 Villagae name in Tirunelveli district of Tamilnadu
- 10 now they are known as Nadars
- 11 Name of a woman from the Nadar community in Tirunelveli district of Tamilnadu
- 12 Bayly, Susan; *Saint, Goddess and Kings*, Cambridge: Cambridge University Press. Pg.406
- 13 AmuthaThereslin (37), Meenakshinathapuram of Nanguneri Taluk in Tirunelveli district
- 14 MariyaChandran (52), Rajavoor in Kanniyakumari district
- 15 *Pezha Petti Edutthal*
- 16 it could be suitcase or any other bag
- 17 it is also known Kodi-Chelai
- 18 Mr. Ponnusamy (67), Eetthavilai in Kanniyakumari District.
- 19 it may be calculated as 36 grams
- 20 Mr. Ramachandran (59), Udangudi of Thoothukudi district
- 21 M.V.Anatha Kumar (79), Nattathi in Thoothukudi district
- 22 blood relatives, it could be his father's sons, father's elder and younger brothers' sons
- 23 *Moi*, it is a Tamil word referring to the gifting procedure during the family functions. This *MOI* practice can be seen in common in all life cycle ceremonies of one family.
- 24 Between bride and groom family
- 25 they are called *MuraiMappillai*
- 26 It is also a kind of gifting procedure. But it can be observed only in marriage. It is a practice which is happening between bride and groom families.
- 27 S. Salet Mary (44), Devasahaya Mount, M. Benny (59), Thuckalai of Kanniyakumari district
- 28 M.V. Anantha Kumar (76), Nattathi of Thoothukudi district
- 29 Meal is sent to a relative whoever unable to attend in special dinner
- 30 S. AmuthaTheraslin (37), Meenakshinathapuram of Tirunelveli district
- 31 it should be given by the priest



- 32 to the church or any other organizations in village which he has engaged  
 33 a marriage between two Catholics, between a Catholic and a baptized Christian of  
 another denomination or between a Catholic and non-baptized person (non-Christian)  
 34 Can. 1124  
 35 1 Cor 7:14  
 36 Can. 1086  
 37 M. Mariya Chandran (59), Rajavoor of Kanniyakumari district and Mr. Koil Mani (49),  
 Navamuthalur of Thoothukudi district.  
 38 M. Cyril (72), Rajavoor of Kanniyakumari district  
 39 The table on kinship term also shows the reality

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## **Chimpanzees (*Pan troglodytes*) behaviour in captivity at the Zoological Garden, Kolkata, India: An exploratory study**

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**Abstract:** Deciphering the behavioural traits of the common chimpanzee in captivity is one of the important approaches of studying primate behaviour. Captive chimpanzees behave differently from the wild chimpanzees owing to the differential habitat, duration of stay in captivity, group size and composition. In the present study, we examined the behavioural traits of four captive chimpanzees (three juvenile and one adult) in relation to their age, sex and duration of stay in captivity. Overall, we have observed that juvenile chimpanzees are highly proactive compared to the adult one. The reason behind their proactive nature may be explained by age, sex and duration of the stay in captivity. However, the arrangement of caging of the chimpanzees in the captive area either in a group or in isolation also plays a significant role to adopt new behavioural strategies. Absence of aggressive behaviour among juveniles leads us to think over the nature of altruistic cohabitation.

*Key words :* Chimpanzee behaviour, captive ecology, Zoological Garden, Kolkata.

### INTRODUCTION

Unravelling the behaviour of chimpanzees either in natural habitat or in captivity has always been one of the most fascinating aspects of biological anthropological research. The ecology of captive area plays an important role to motivate chimpanzees to display unique behaviours (Kummar and Goodall, 1985). For example, one study showed naturalistic enclosures and movable play things significantly improve the welfare of captive apes (Clark and Wilson, 1982). Studies also suggest that the non-human primates may be kept in social groups within semi-natural conditions, so that they can have a chance to interact with group members (Celli et al., 2003; Lukas et al., 2005; Khan, 2013). National Institute of Health (NIH) opined that chimpanzees should be captivated in Ethologically Appropriate Environments (EAEs) for promotion of natural behaviours exhibited by wild, free chimpanzees (NIH, 2013). For example, a group of captive chimpanzees comprising more males and a wide age range would exhibit higher levels of welfare related behaviours (e.g. higher levels of affiliation, proximity to group mates, behavioural diversity), and lower levels of behaviours indicative of poor well-being (e.g. abnormal behaviour, rough-scratching and aggression) (Webb, 2019).

Observing chimpanzees behind the fences always help us to understand their different behavioural traits to balance the influence of anthropogenic

agencies. A number of researches conducted on the behaviour of rhesus and macaque monkeys in India, both in captivity and in wild (Singh, 1966; Singh and Pirta, 1978; Seth and Seth, 1983, 1993; Sinha, 1997; Sinha, 1998; Sinha, 2001; Radhakrishnan and Singh, 2002; Radhakrishnan and Sinha, 2003; Sinha et.al., 2003; Sinha, 2003; Sinha, 2003; Radhakrishnan, 2004; Radhakrishnan and Singh, 2004; Singh and Sinha, 2004; Kumar et.al., 2005; Sinha, 2005; Mallarpur et.al., 2007; Huffman, and Sinha, 2011; Chatterjee, 2012; Sharma, 2012; Radhakrishnan et.al., 2013; Gupta and Sinha, 2016; Sinha and Vijaykrishna, 2017) dealt with the psychology of the monkeys and their communication with humans.

Chimpanzees not only share genetic proximity to humans, but also to a large extent behavioural similarity (de Waal, 2011). Thus, it is interesting to decipher the behaviour of chimpanzee those are in captive and exposed to human gaze. Unlike the previous behavioural studies on the non-human primates, especially monkeys in India, this is the first study which examines the behaviour of the captive apes.

In the present study, we examined the behavioural traits of four captive chimpanzees (three juvenile and one adult) in relation to their age, sex and duration of stay in captivity.

#### MATERIALS AND METHODS

We conducted the behaviour study of chimpanzees at Zoological Gardens (accredited by Central Zoo Authority – CZA), Alipore, located in the Kolkata Metropolitan area, West Bengal, India. We conducted this fieldwork during the month of April, 2018. We observed the behaviours of four chimpanzees living in captivity in the Zoological Garden. Three of them were juvenile chimpanzees [two males (named *Chotu and Mastan*), one female chimpanzee (named *Basanti*)], around five years of age. The fourth chimpanzee is an adult (named *Babu*) aged 30years. All the chimpanzees were kept inside a circular enclosure surrounded with iron made fence which is up to 24 feet in height. At the back side of the enclosure, there were two cages, one for accommodating the adult chimpanzee and the other for the three juvenile chimpanzees.



Three juvenile chimpanzees sitting on a tree log (from left *Mastaan*, *Basanti* and *Chotu*)



Adult chimpanzee named *Babu* sitting on the parapet in front of the room

We studied 52 behaviours of the studied group. We used the protocols of studying behaviours of chimpanzees in captivity from previous studies (Bloomsith & Lambert, 1995; Pederson et. al., 2005; Bradshaw et. al., 2008; Birkett and Newton-Fisher, 2011). In addition, we recorded some other behaviours of the chimpanzees. The following behavioural traits were observed in our study (Box 1).

Box 1: *Behavioural traits and their definitions*

Codes	Behaviours	Sources of definition
1	Beat – Slaping one another	1
2	Bounce - bouncing body or head, in non-social context	2
3	Brachiate – arm swinging	1
4	Carrying banana in mouth	1
5	Catching objects	1
6	Chasing each other	1
7	Chewing and eating any object	1
8	Clap - slaping palm of hand or sole of foot, making noise	2
9	Climb – climbing a branch of a tree or log	1
10	Copulate – sexual activity	1
11	Dip in water – dipping whole body in water	1
12	Display to human - stretching hands towards human	3
13	Drag – dragging one another	1
14	Drink water – drinking water from the pool	1
15	Grab – grabbing another chimpanzee	1
16	Hang - hanging from objects (rod, rope, tree)	1
17	Hug – hugging another chimpanzee	1

contd.....

18	Jerk – moving tree or rope intentionally	4
19	Jumping	1
20	Kicking	1
21	Leap - jumping or springing a long way	1
22	Lie on - lying on ground, log	1
23	Lie under - lying under log/shade	1
24	Pace - locomote, usually quadrupedally	5
25	Pant-hoot – a loud and long distance vocalization	1
26	Play - playing with other chimpanzee	1
27	Pluck – plucking grass or insects	1
28	Pluck hair - pulling out another's hair	2
29	Poke stick – jabbing or proding with stick in anything	1
30	Pose - sitting in a proper way on ground for giving pose for pictures	1
31	Pound – hitting chest repeatedly	1
32	Rest - remaining inside room	1
33	Rock - swaying repetitively and rhythmically	2
34	Roll over – rolling somebody over	1
35	Rub genitals – rubbing genitals against trees or parapet	1
36	Run	1
37	Sit on-sitting on ground, parapet, rod, roof shade, rope ladder, tree log/branch	1
38	Sit under – sitting under log/shade	1
39	Scratch body	1
40	Scream	1
41	Search - searching in grass for any food	1
42	Show neck with fingers – a sign of showing thirsty	1
43	Show off genitals – holding genitals in one's own hand to show	1
44	Somersault – rotating body 360° with feet passed over the head	1
45	Stand - standing on objects (playground, parapet, rod, roof shade, log/tree branch)	1
46	Tear – tearing rope of the sway	1
47	Throw – throwing any object	1
48	Thump – pounding or throbbing in a continuous way	1
49	Toss head – throwing own head up and down	2
50	Twirl – spinning round quickly in ropes	2
51	Walk - walking on rope ladder	2
52	Wrestle – fighting by holding them and trying to throw them on ground	1

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*Chotu* drinking water from the pool within the enclosure.



*Chotu* (left) and *Basanti* (right) playing, where *Basanti* shows play face.

[Note: Sources are 1. Present study; 2. Birkett & Newton-Fisher (2011); 3. Pederson et al (2005); 4. Bradshaw et.al.(2008); 5. Bloomsmith & Lambert(1995).]

The observation period of these behaviour was from 9:15am to 3:30pm. The fieldwork was conducted for ten days on an average five hours. Thus, the total duration of observation was 50 hours. The observation was made from a distance of 8 meters from the activity area of the chimpanzees. According to the zookeepers, three juvenile chimpanzees have free access in the open area at the primate enclosure from 7 am to 1pm, whereas the adult chimpanzee is kept free within the enclosure from 2 pm onwards.

We recorded fifty hours of audio-visual behavioural data employing *Ad.libitum* sampling, One-zero sampling and photographic methods.

#### *Statistical analysis*

The behavioural traits were translated and coded from the video recordings and still photographic records. The coded behavioural traits were analyzed using MS Excel 2007, PASW Statistics 2018 and Orange 3.20 software. We estimated the prevalence (Prevalence = the number of chimpanzees performing a particular behavior per day/total number of studied chimpanzees) and frequency (Frequency = the particular behaviour performed by all chimpanzees per day/10 days of observation) of the behavior performed by the four chimpanzees to explore their behavioral pattern (Table 1).

Since the distribution of all the behavioural data were skewed, we used non-parametric statistical tests (Birkett and Newton-Fisher, 2011) like Kruskal-Wallis H test, Mann-Whitney U test to understand the relationship among the 52 behavioural traits displayed by all four chimpanzees. All the tests were two-tailed, and  $p=0.05$  was chosen to determine significance of the results. Hierarchical cluster analysis (HCA) was done to understand the similarities in frequency of behavioural traits as well as in the duration of behavioural traits performed by all the chimpanzees during the entire period of study. The analysis is based on average linkage (between groups) cluster method and measured by squared Euclidean distance. The values of the distances were calculated within a range of (-1) to (+1).

#### *Ethical note*

The study protocol was approved by the authority of Zoological Garden, Kolkata and also adhered to the legal requirement of the country in which the research was conducted.

## RESULTS

Among the juvenile chimpanzees, *Mastaan* performed forty-eight types of behavior, followed by *Chotu* (forty-six types) and *Basanti* (forty-one types). In

Table 1: Median of prevalence and frequency of the behavioural traits

Codes	Behaviours	Median of prevalence (50 hours)	Median of frequency (50 hours)
1	Beat	0	0
2	Bounce	0.38	0.03
3	Brachiate	0.25	0.02
4	Carry a banana in mouth	0.63	0.05
5	Catch things	0.88	0.07
6	Chase	0.13	0.01
7	Chew and Eat	1	0.08

contd.....

8	Clap	1	0.08
9	Climb	4.50	0.36
10	Copulate	0	0
11	Dip in water	3.75	0.30
12	Display to human	0.13	0.01
13	Drag	0	0
14	Drink water	0.25	0.01
15	Grab	0.13	0.01
16	Hang	0.38	0.06
17	Hug	0.13	0.01
18	Jerk	0.63	0.05
19	Jump	0.88	0.07
20	Kick	0	0
21	Leap	0.38	0.03
22	Lie on	0.75	0.06
23	Lie under	0	0
24	Pace	1.75	0.14
25	Pant-hoot	0	0
26	Play	0.50	0.04
27	Pluck grass	0	0
28	Pluck hair	0	0
29	Poke stick	0	0
30	Pose	0	0
31	Pound	0	0
32	Rest	2.25	0.18
33	Rock	3.88	0.31
34	Roll over	0	0
35	Rub genitals	0	0
36	Run	1.88	0.15
37	Sit on	6.75	0.52
38	Sit under	2.38	0.19
39	Scratch body	0.25	0.02
40	Scream	0.38	0.01
41	Search	0	0
42	Show neck with fingers	0	0
43	Show off genitals	0.25	0.02
44	Somersault	0.63	0.05
45	Stand	0.88	0.07
46	Tear	0.25	0.02
47	Throw	0.25	0.02

contd.....



48	Thump	0	0
49	Toss head	0	0
50	Twirl	0	0
51	Walk	0	0
52	Wrestle	0	0

contrast, the only adult chimpanzee, *Babu* displayed least number of behaviors (ten types).

Table 1 revealed that the behavior 'sit on' shows the highest median value of prevalence followed by 'climb', 'rock', 'dip in water', 'sit under' and so on. The

Table 2. The frequency of behaviours performed by each chimpanzee

Codes	Behaviour	Frequency			
		<i>Chotu</i>	<i>Masaan</i>	<i>Basanti</i>	<i>Babu</i>
1	Beat	4	10	1	0
2	Bounce	8	21	6	0
3	Brachiate	8	3	4	0
4	Carry banana in mouth	16	16	11	0
5	Catch things	36	37	26	0
6	Chase	6	11	3	0
7	Chew and eat	48	16	17	2
8	Clap	41	16	1	0
9	Climb	65	96	51	0
10	Copulate	2	3	3	0
11	Dip in water	115	89	43	1
12	Display to human	13	0	2	0
13	Drag	4	7	2	0
14	Drink water	9	3	2	3
15	Grab	3	4	1	0
16	Hang	66	37	28	0
17	Hug	7	7	3	0
18	Jerk	5	23	6	0
19	Jump	22	27	17	0
20	Kick	6	2	2	0
21	Leap	36	39	14	0
22	Lie on	39	11	13	0
23	Lie under	16	2	0	0
24	Pace	34	30	23	4
25	Pant-hoot	5	1	3	0
26	Play	23	11	7	0
27	Pluck	6	6	3	0

contd.....

28	Pluck hair	0	2	2	0
29	Poke stick	2	2	3	0
30	Pose	0	0	0	1
31	Pound	0	1	0	1
32	Rest	39	41	33	5
33	Rock	78	41	16	0
34	Roll over	25	8	1	0
35	Rub genitals	0	2	1	0
36	Run	27	41	7	0
37	Sit on	150	103	68	10
38	Sit under	47	29	29	2
39	Scratch body	10	4	4	2
40	Scream	7	3	4	3
41	Search	2	3	1	0
42	Show neck with fingers	0	2	0	0
43	Show off genitals	9	10	0	0
44	Somersault	38	26	8	0
45	Stand	30	50	20	0
46	Tear	2	4	4	0
47	Throw	15	2	1	0
48	Thump	0	2	0	2
49	Toss head	2	12	0	1
50	Twirl	5	2	0	0
51	Walk	1	2	1	0
52	Wrestle	11	11	0	0

same table also showed that the behavior 'sit on' shows the highest value of duration, followed by 'rock', 'sit under' and 'rest'.

Table 2 shows that the frequency of behaviour 'sit on' was the highest in all four chimpanzees. It indicates the chimpanzees preferred to sit on tree logs, ground, parapet, rod, rope ladder, roof-shade, more than displaying any other activities in the captivity. It is notable from Table 1 that, *Babu*, the adult chimpanzee did not display as much behaviours, unlike the other juvenile

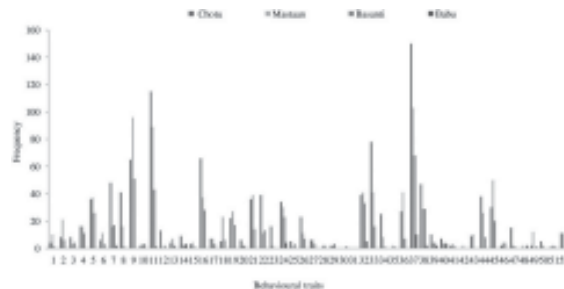


Fig 1: Distribution of the behavioural traits displayed by chimpanzees (individual) based on frequency

chimpanzees. However, it is interesting to note that *Babu* most frequently displayed the behavior 'pose' (for taking photographs by the spectators), unlike the juvenile chimpanzees.

It is quite fascinating that aggressive behaviours like hit, bite, pull, pound, kick (Goodall, 1968; Surbeck et.al., 2017) were absent among these captive chimpanzees. *Chotu* (21.57%) displayed the highest and most diverse behavioural patterns, whereas *Babu*, remained calm and sat alone at a place for most of the time. (1.71%) (Fig 1).

Table 3. Total frequency of the behaviours displayed by all the four chimpanzees

Codes	Behaviours	Frequency (combined)	Frequency (%)
37	Sit on	331	13.24
11	Dip in water	248	9.92
9	Climb	212	8.48
33	Rock	135	5.4
16	Hang	131	5.24
32	Rest	118	4.72
38	Sit under	107	4.28
45	Stand	100	4
5	Catch things	99	3.96
24	Pace	91	3.64
21	Leap	89	3.56
7	Chew and eat	83	3.32
36	Run	75	3
44	Somersault	72	2.88
19	Jump	66	2.64
22	Lie on	63	2.52
8	Clap	58	2.32
4	Carry banana in mouth	43	1.72
26	Play	41	1.64
2	Bounce	35	1.4
18	Jerk	34	1.36
34	Roll over	34	1.36
52	Wrestle	22	0.88
6	Chase	20	0.8
39	Scratch body	20	0.8
43	Show off genitals	19	0.76
23	Lie under	18	0.72
47	Throw	18	0.72

contd.....

14	Drink water	17	0.68
17	Hug	17	0.68
40	Scream	17	0.68
1	Beat	15	0.6
3	Brachiate	15	0.6
12	Display to human	15	0.6
27	Pluck	15	0.6
49	Toss head	15	0.6
13	Drag	13	0.52
20	Kick	10	0.4
46	Tear	10	0.4
25	Pant-hoot	9	0.36
15	Grab	8	0.32
10	Copulate	8	0.32
29	Poke stick	7	0.28
50	Twirl	7	0.28
41	Search	6	0.24
28	Pluck hair	4	0.16
48	Thump	4	0.16
51	Walk	4	0.16
35	Rub genitals	3	0.12
42	Show neck with fingers	2	0.08
31	Pound	2	0.08
30	Pose	1	0.04

The frequency of behaviours when combined together also shows similar results as observed at individual level – the frequency of ‘sit on’ was the highest and the frequency of “pose” was the lowest. (Table 3)

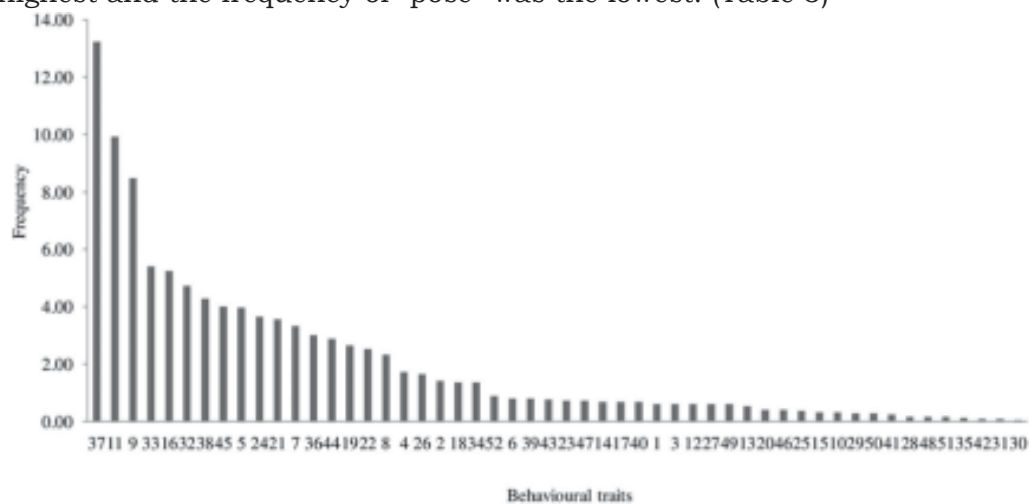


Fig 2: Distribution of behavioural traits displayed by chimpanzees (combined) based on frequency

One may argue that these behavioural patterns were also the product of primate-ecology interaction in captivity and may differ with duration of stay and habitat (Fig 2).

The relationship among four chimpanzees based on 52 behaviours has been calculated by Kruskal-Wallis test to explore the association of age with behaviours and the result was significant ( $\chi^2 = 81.57$ ,  $df=3$ ,  $p=0.000$ ). Our result indicates an association of age with the behavioural pattern of chimpanzees.

We used Mann-Whitney U test to find the differences in the frequency of behaviour. Our results show that there was no significant difference in the frequency of behaviour between two juvenile males [*Chotu* and *Mastaan* ( $U=1305$ ,  $N_1=N_2=52$ ,  $P=0.53$ )], whereas significant difference has been found between two pairs of juvenile male and female [*Chotu* and *Basanti* ( $U=932$ ,  $N_1=N_2=52$ ,  $p=0.003$ ); *Mastaan* and *Basanti* ( $U=1010$ ,  $N_1=N_2=52$ ,  $p=0.01$ )]. The result clearly explains the association of sex on the behavioural pattern among juvenile group. Using Mann-Whitney U test, we also found significant difference in the frequencies of behavioural traits between juvenile *Chotu* and adult *Babu* ( $U=264.50$ ,  $N_1=N_2=52$ ,  $p=0.000$ ), juvenile *Mastaan* and adult *Babu* ( $U=215.50$ ,  $N_1=N_2=52$ ,  $p=0.000$ ) and juvenile *Basanti* and adult *Babu* ( $U=456$ ,  $N_1=N_2=52$ ,  $p=0.000$ ). The test indicates that there is an association of age with display of behaviours.

Hierarchical cluster analysis was performed to explore the level of similarity among the studied chimpanzees based on the behavioural traits.

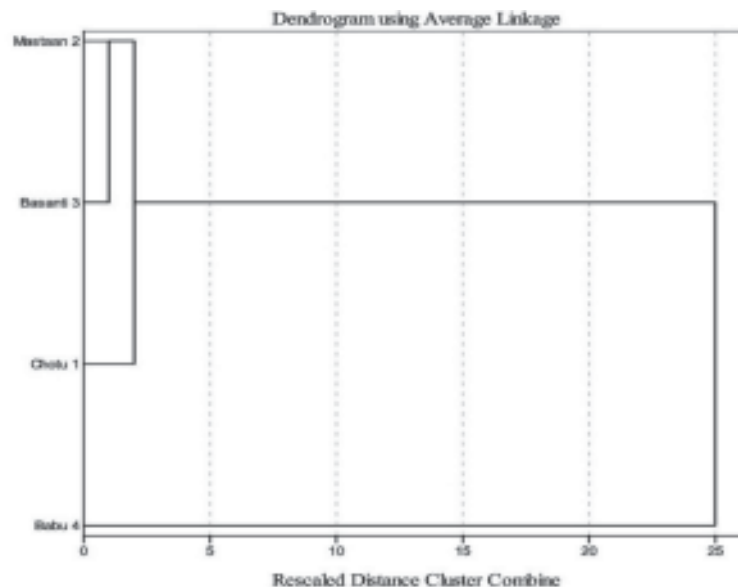


Fig 3: Relative distance among chimpanzees based on the frequency of their behavioural traits

The coefficients of average linkage among the three clusters were 0.44 (between *Mastaan* and *Basanti*), 0.58 (between *Chotu* and *Mastaan*), 2.25 (between all

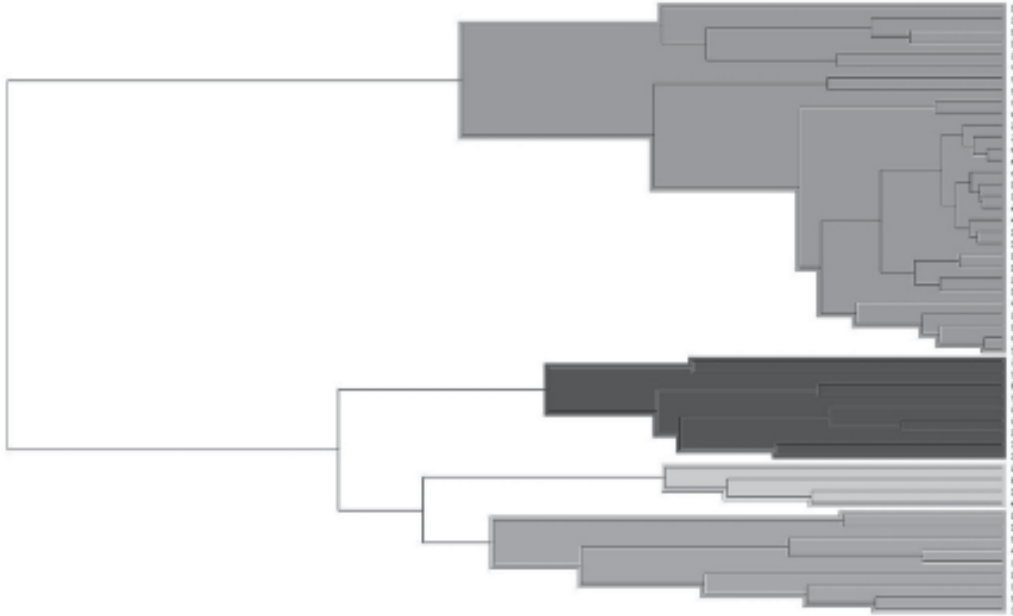


Fig 4: Dendrogram showing the clusters of fifty-two observed behavioural traits of the studied chimpanzees based on their frequently displayed behaviour

juveniles and *Babu*). In case of the frequency of behavioural traits, *Basanti* (female) and *Mastaan* (male) were closest to each other (2.76) than any other

Table 4. Duration (in minutes) of behaviour displayed by each chimpanzee

Codes	Behaviours	<i>Chotu</i>	<i>Mastaan</i>	<i>Basanti</i>	<i>Babu</i>
1	Beat	0	0.07	0	0
2	Bounce	0	0.25	0.07	0
3	Brachiate	1.58	0.52	0.10	0
4	Carry a banana in mouth	1.38	0.68	0.45	0
5	Catch things	0.90	1.32	1.32	0
6	Chase	1.42	1.35	0.75	0
7	Chew and eat	5.75	6.87	6.10	0.08
8	Clap	5.32	1.27	0.30	0
9	Climb	15.75	11.32	4.48	0
10	Copulate	0.33	0.57	0.90	0
11	Dip in water	43.27	25	17.80	0.67
12	Display to human	2.25	2.53	0.67	0
13	Drag	0.25	0.08	0.08	0
14	Drink water	0.42	0.75	0.05	0.08
15	Grab	0.83	0.32	0	0
16	Hang from objects	45.12	21.42	16.35	0

contd.....

17	Hug	0.38	0.72	0.32	0
18	Jerk	1.63	6.33	1.47	0
19	Jump	0.33	0.13	0.05	0
20	Kick	0.25	0	0	0
21	Leap	6.70	4.37	1.33	0
22	Lie on	10.28	0.78	0.83	0
23	Lie under	7.7	2.95	0	0
24	Pace	35.40	16.35	8.93	1.82
25	Pant-hoot	0.20	0.18	0.25	0
26	Play	3.82	1.82	1.68	0
27	Pluck	1.25	2.68	1.98	0
28	Pluck hair	0.85	2.18	2.42	0
29	Poke stick	2.63	0	1.53	0
30	Pose	0	0	0	3
31	Pound	0	0.10	0	1
32	Rest	11.10	3.58	36.22	2
33	Rock	62.57	19.97	16.77	0
34	Roll over	1.48	0.25	0	0
35	Rub genitals	4.68	1.93	1.78	0
36	Run	8.32	9.78	3.90	0
37	Sit on	60.50	68.42	68.37	8.32
38	Sit under	25.33	27.93	20.65	2
39	Scratch body	0.52	0.23	0.40	0.05
40	Scream	0.22	0.12	0.05	0
41	Search	0	0	0	0
42	Show neck with fingers	0.65	0.10	0	0
43	Show off genitals	1.55	0.57	0.15	0
44	Somersault	1.63	1.35	0.42	0
45	Stand	3	7.77	1.48	0
46	Tear	1.75	0.30	2.60	0
47	Throw	0.70	0.08	0	0
48	Thump	0	0.27	0.05	0
49	Toss head	0.10	0.68	0	0
50	Twirl	1.83	3.40	6.95	0
51	Walk	0.30	0.85	0.32	0
52	Wrestle	2.75	2.10	0.07	0

chimpanzees, and *Babu* (adult male) was farthest from all of them (6.97)(Fig 3).

A hierarchical cluster analysis based on average linkage estimation (Fig 4) showed homogeneity in the behavioural pattern.

The duration of the behaviour 'rock' was the highest in case of *Chotu*, whereas the duration of the behaviour 'sit on' was the highest among other three chimpanzees. This indicates *Chotu* enjoyed to rock (sway repetitively and rhythmically) for a longer period of time than any other behaviours. On the other hand, the remaining three chimpanzees preferred to sit on rod, ground, parapet, roof-shade, rope ladder compared to other behaviours. The table also showed that the *Babu* displayed both the behaviours 'pose' and 'pound' for the longest duration and only 'pound' by *Mastaan*. (Table 4)

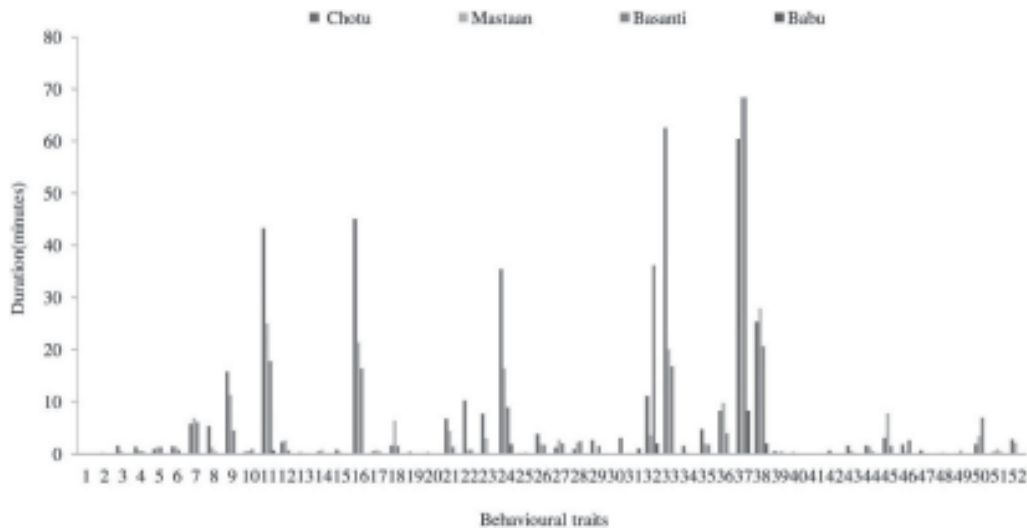


Table 5. Behavioural traits of chimpanzees (combined) based on duration (in minutes)

Codes	Behavior	Duration of performance of behaviours	Duration(%)
37	Sit on	205.60	8.22
33	Rock	99.30	3.97
11	Dip in water	86.73	3.47
16	Hang	82.88	3.32
38	Sit under	75.92	3.04
24	Pace	62.50	2.50
32	Rest	52.90	2.12
9	Climb	31.55	1.26
36	Run	22.00	0.88
7	Chew and eat	18.80	0.75
21	Leap	12.40	0.50
45	Stand	12.25	0.49
20	Twirl	12.18	0.49
22	Lie on	11.90	0.48

contd.....



23	Lie under	10.65	0.43
18	Jerk	9.43	0.38
35	Rub genitals	8.40	0.34
26	Play	7.32	0.29
8	Clap	6.88	0.28
27	Pluck	5.92	0.24
12	Display to human	5.45	0.22
28	Pluck hair	5.45	0.22
52	Wrestle	4.92	0.20
46	Tear	4.65	0.19
29	Poke stick	4.17	0.17
5	Catch things	3.53	0.14
6	Chase	3.52	0.14
44	Somersault	3.40	0.14
30	Pose	3.00	0.12
4	Carry banana in mouth	2.52	0.10
43	Show off genitals	2.27	0.09
3	Brachiate	2.20	0.09
10	Copulate	1.80	0.07
34	Roll over	1.73	0.07
51	Walk	1.47	0.06
17	Hug	1.42	0.06
14	Drink water	1.30	0.05
39	Scratch body	1.20	0.05
15	Grab	1.15	0.05
31	Pound	1.10	0.04
47	Throw	0.78	0.03
49	Toss head	0.78	0.03
42	Show neck with fingers	0.75	0.03
25	Pant-hoot	0.63	0.03
19	Jump	0.52	0.02
13	Drag	0.42	0.02
40	Scream	0.38	0.02
2	Bounce	0.32	0.01
48	Thump	0.32	0.01
20	Kick	0.25	0.01
1	Beat	0.07	0
41	Search	0.00	0

We also compared the duration of the behavioural traits among four chimpanzees independently; the duration was the highest in case of *Chotu*

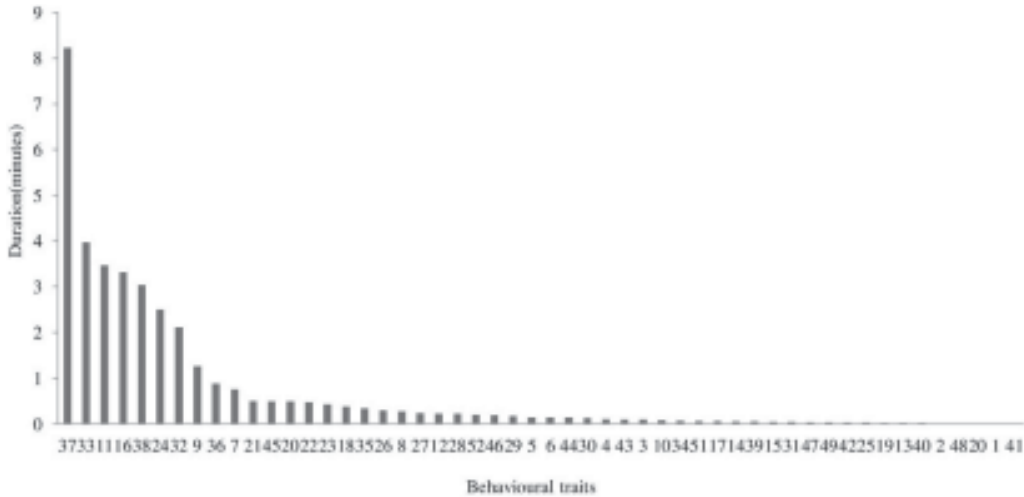


Fig 6: Distribution of behavioural traits of chimpanzees (combined) based on duration (7.26%) and lowest in case of *Babu* (0.35%) (Fig 5).

The results in table 5 indicate that the duration of displayed behaviour 'sit on' was the highest and duration of behaviour 'search' was the lowest (Figure 6).

The relationship among three juvenile individuals based on the duration of behaviours did not show any significant association [Kruskal-Wallis H test ( $\chi^2= 5.61, df=2, p=0.06$ )]. But when compared between juveniles and adult, the result showed significant association ( $\chi^2 =64.73, df =3, p=0.001$ ).

Mann-Whitney U test shows significant difference between durations of juvenile *Chotu* and adult *Babu* ( $U=366, N_1=N_2=52, p=0.000$ ), juvenile *Mastaan* and adult *Babu* ( $U=335, N_1=N_2=52, p =0.000$ ) and *Basanti* and *Babu* ( $U=552,$

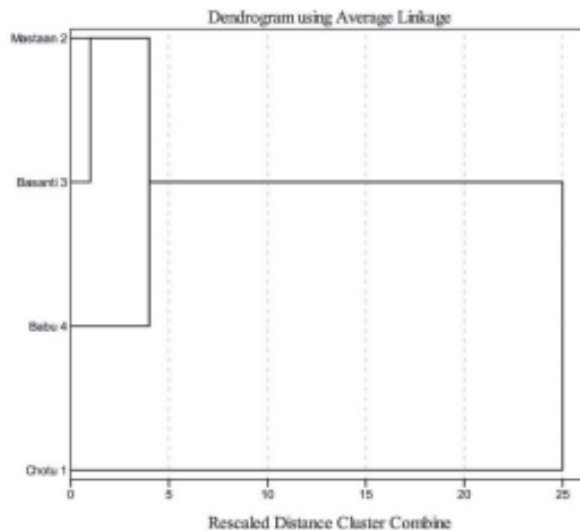


Fig 7: Relative distance among the chimpanzees based on duration (in minutes) of behavioural traits

$N_1=N_2=52$ ,  $p =0.000$ ). The coefficients of average linkage among the three clusters are 0.31 (between *Mastaan* and *Basanti*), 0.45 (between *Chotu* and *Babu*), 1.58 (between *Chotu* and all three chimpanzees) (Figure 7).

#### DISCUSSION

Overall the behavioural pattern of the captive chimpanzees varied with age, sex and duration of stay. Apart from age and sex, the composition of the group of juvenile chimpanzees also plays an important role in displaying varied behavioural pattern. Few studies (Fritz et.al., 1992; Nash et.al., 1999) only dealt with the presence or absence of behaviour, limiting any comparison related to prevalence.

It is interesting to note that since *Basanti*, *Mastaan* and *Chotu* live in an enclosure, unlike *Babu*, hierarchical cluster analyses (HCA) showed similarity in the pattern of behavior between the former three. Perhaps, *Basanti*, *Chotu* and *Mastaan* get a longer period of activity in open space and thereby we observed a similarity in their behavioural pattern. Again, within these three chimpanzees, *Chotu*, owing to smaller body size was found to be more agile than the other two juveniles.

Our findings also suggest that duration of stay of chimpanzees in captivity is associated with the activity pattern; longer the duration of stay in captivity, lesser is the agility. We learned from the zoo keeper that *Babu* became less active ever since he lost his partner (*Rani*) some 20 years before. But we are not in a position to say, whether the loss of the partner or aging effect or both compelled *Babu* to reduce activity. It is interesting that duration of stay in captivity might have an association in display of behaviours. One of the most fascinating observations was the lack of aggression among juvenile chimpanzees. This indicates a unique altruistic nature of cohabitation within a group to unknown or less known environment. Living within a group or staying isolated in the captive area also plays a significant role to adopt new behavioural strategies by the chimpanzees. Our observation regarding captive environment also corroborates to many studies conducted by other scholars (Webb et.al.,2017; Bettinger et.al., 2017; Dye, 2017; Honess, 2017; Reamer et.al., 2017; Williams and Ross, 2017).

Fuentes (2017) is of the opinion that environment has a major role in shaping of behaviour of an individual or a group. We found in our study that the owing to small group size, less competition in getting access to resource, the studied chimpanzees showed less aggressive behaviour.

Despite the limitation in sample size, our study reveals the unique feature of displaying altruistic behaviour of juvenile chimpanzees. Perhaps longitudinal study, considering seasonal variation in behavioural pattern of the chimpanzees or comparison of behavioural pattern of chimpanzees in different captive conditions would unravel more dimensions of chimpanzee behaviour.

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## **Educational Scenario among the Bhumia Baiga- A Particularly Vulnerable Tribal Group of Amarkantak**

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**Abstract:** The Government of India considers imparting free and compulsory education as one of the ways to develop the Particularly Vulnerable Tribal Groups (PVTGs). To achieve this, a number of initiatives like scholarships, free boarding and lodging, text and note books, uniform, mid-day meal have been undertaken to direct the attention of the PVTGs towards formal education. Despite all these facilities, the school drop-out rate of the PVTGs is still high compared to the other non-tribal groups. The present study looks into the educational scenario of Bhumia Baiga, who comes under primitive tribal group, residing in Dhanoli *gram panchayat* in Bilaspur district of Chhattisgarh, India. This micro level study further examines the role of pre-school education in enhancing the enrollment at primary school and its impact on Baiga education. For the present study, anthropological methods like observation, interviewing, applications of schedule and questionnaire were used along with secondary sources to collect data on the state of Baiga education.

The present study with its focus on the educational status of the Baiga, inhabiting close to the core group of tribal and non-tribal populations as well as on the interior forest ranges, reveal a general trend that the status of education is high where infrastructure facilities are existing and low in interior forest village lacking in proper facilities. The study also highlights the role of pre-school centers in improving the state of education among the Baiga children.

*Key words :* Education, PVTGs, Bhumia Baiga, Development, Chhattisgarh

### INTRODUCTION

Education is catalytic to ameliorating the socio-economic condition of a given society or individual. Keeping in view of its significance, many scholars furnished diverse theoretical interpretations on education from time to time. The functionalist scholars like Robert K. Merton and others believed that education is one of the important social institutions to provide socialization, social control, innovation, social networks, teamwork, political and social integration (Blackledge and Hunt, 1985). In contrary to this, conflict theorists viewed education as a means of widening the gap in social inequality (Young, 1971). Symbolic interactionists regarded education as one way of labelling theory and tried to show how labelling of students change in socio-cultural environment, classroom, interaction between students, teachers, and how those labels affect everyday life (Sever, 2012). The new sociology of education marked a change in direction for the education exploring for the first time the teacher's role in reproducing social inequalities. The political arithmetic approach has positioned the teacher and the school as neutral agents in this

process. The studies undertaken by Bapah 1961 and 1964, Banerjee 1962, Basu 1961 focussed on different aspects of tribal education and explained the problems from the functionalistic point of view. Aiyappan (1948) analyzed the major problems of tribal education and pointed out the utility of imparting vocational education for the creation of employment. A number of studies suggested that education can be one of the measures for the upliftment of tribal communities. For example, Naik (1969) while studying the impact of education on the Bhils of Madhya Pradesh, found education as one of the important factors in bringing about socio-cultural change among the Bhils. Similarly, Lakra (1999) underlined the vital role of education in changing the socio-cultural life of the Oraons.

The New Policy on Education (1986) has emphasized on the need to improve the status of education in tribal areas and on the importance of vernacular as a teaching-learning medium for the tribal communities, corroborating the observation made by Basu (1961). The objective of this policy is to reduce the dropout rates of the tribal students from school (Gautam, 2003).

In India, the status of school education reveals that primary school participation rate is more when compared to secondary level (Gandhi 2007). The Annual Status of Educational Report (ASER) (2017) also mentioned that 93.4% of all age school children were enrolled at the elementary level. This has attributed to less number of secondary schools compared to the number of primary schools. The present study aimed to identify the factors responsible for changing of Baiga attitude towards education in the present context.

#### MATERIALS AND METHODS

##### *Study Area*

For the present study, Baiga hamlets of Dhanoli *grampanchayat* of Bilaspur District in Chhattisgarh were selected. The villages covered in this study were Pakhri Katchar, Khari Debra, Chuila Paani, Media Katchar, Patra *tola*, Karangara, and Baidkudra. Of these, Karangara and Baidkudra Baiga hamlets are situated on the hillocks and inside the forest of the Maikal range of Amarkantak region. The remaining hamlets are located in plain lands that are surrounded by agriculture-practicing Gond, Kol, and non-tribal communities such as Gujjar and Yadav.

##### *Data types and data collection techniques*

Primary data for the study were collected through intensive fieldwork during the year 2016-2017. A total of six primary schools, one middle school, and one higher secondary school that are located in the study area were selected for this study. The head master and teachers of the selected schools were interviewed to get the enrollment list of the students. Focus group discussions were conducted to understand the perception and attitude of teachers, students, parents, and *anganwadi* workers in the study

area. A framed questionnaire was canvassed among the different stakeholders associated with the educational development of that area to collect and compile the information on educational infrastructure, programmes and schemes. A door-to-door survey was conducted in six Baiga hamlets covering altogether 367 households to get an estimate of the literacy level. The traditional anthropological method i.e., observation was extensively used to cross-check the data gathered through above-mentioned techniques. In each village, the researcher identified 3 to 4 key informants (such as, members of the school management committee) who had the knowledge and collected data regarding the functioning of schools, student hostels and *anganwadi* centres since they were well acquainted with the village and villagers.

## RESULTS

### *Demographic Scenario*

The total population of the study villages comes to 1334, consisting of 656 males and 678 females; the female population being higher than the male population. The sex ratio of Baiga settlements located near the road side (Chuila Paani, Khari Debra and Media Katchar) shows lower number of females compared to the males. The trend is reversed for the Baiga settlements located on the hill side (Pakhri Katchar and Karangara) (Table 1).

Table: 1 Population Details of Baiga Settlements in Dhanoli

Sl.No.	Baiga Hamlets	Male	Female	Total
1	Karangara	140 (46.82%)	159 (53.17%)	299 (100.0%)
2	Baidkudra	32 (42.66%)	43 (57.33%)	75(100.0%)
3	Media Katchar	154 (50.49%)	151(49.50%)	305 (100.0%)
4.	Chuila Paani	151 (51.36%)	143 (48.63%)	294 (100.0%)
5.	Pakhri Katchar	97 (48.98%)	101(51.01%)	198(100.0%)
6.	Khari Debra	82 (50.30%)	81 (49.70%)	163 (100.0%)
	Total:	656 (49.17%)	678 (50.82%)	1334(100.0%)

Source: Household census, 2017

### *Literacy rate of the Bhumia Baiga*

With the initiatives taken by the education department like mid-day meal and *Sarva Siksha Abhiyan*, the Baiga children are showing inclination towards formal education. Table 2 on educational status of Baiga is encouraging. All the children are enrolled in primary schools and drop outs are found only at the secondary level. It may be attributed to the locational disadvantage of high schools and colleges which are far away from the Baiga settlements and hence their interest in middle and high school education has not quite grown.

Table: 2 Literacy Rate in Baiga Hamlets 2015

SI.No.	Area/settlement	Literates			Illiterates		
		Male	Female	Total	Male	Female	Total
1.	Pakri Katchar	65 (59.09%)	45 (40.90%)	110 (99.99%)	38 (43.18%)	50 (56.81%)	88 (99.99%)
2.	Chuilapaani	84 (59.15%)	58 (40.84%)	142 (99.99%)	67 (44.07)	85 (55.92)	152 (99.99%)
3.	Media Katchar	74 (48.05%)	59 (30.07%)	133 (43.60%)	80 (53.33%)	92 (60.92%)	172 (56.39%)
4.	Khari Debra	56 (68.29%)	40 (49.38%)	96 (58.89%)	26 (31.70%)	41 (50.61%)	67 (41.10%)
5.	Karangara	114 (81.42%)	104 (65.40%)	218 (72.90%)	26 (18.57%)	55 (34.59%)	81 (40.90%)
6.	Baidkudra	14 (62.04%)	13 (30.23%)	27 (36.0%)	18 (56.25%)	30 (69.76%)	48 (64.0%)

Source: Household census, 2017

It further appears from the table that Karangara is having the highest literacy rate and Baidkudra the lowest. Since Baidkudra is located on a hillock on the border of Madhya Pradesh and Chhattisgarh their children are compelled to go to Karangara, which is at a greater distance compared to their neighboring village of Sarahkona, which has a hostel facility. Except for Pakhri Katchar and Media Katchar, the rate of literacy is nearing 50%. This may be attributed to the proximity of primary school and also to the initiatives taken by the government. Incidentally, the school dropout rate is more after primary and middle school level. The under-graduate college is far away from their place of residence and they are compelled to go either to Gaurela or Bilaspur, which is not an easy option. Due to lack of proper transport and inadequate financial support, they could not venture for higher studies. Early marriage is another deterrent of school dropout, since majority of the girls and boys get married at middle school stage.

Danauli has a middle and a higher secondary school, followed by one primary school in each Baiga settlement. Children from the nearby villages including Baiga children get admitted in Danauli Secondary and Higher Secondary schools since their villages do not have such education facility. The class-wise distribution of Baiga children including boys and girls are presented in table 3 for understanding the educational scenario of the Baiga in comparison with other tribal and non-tribal populations.

Table: 3 Student Strength in *Balika Ashram* in Danauli, 2015

Sl.No.	Standards	Non-Baiga	Baiga	Total
1	I	1 (20.0%)	4(80.0%)	5(100.0%)
2	II	5 (45.0%)	6(55.0%)	11 (100.0%)
3	III	8(89.0%)	1 (11.0%)	9(100.0%)
4	IV	9(82.0%)	2 (18.0%)	11(100.0%)
5	V	11(92.0%)	1(8.0%)	12(100.0%)
6	VI	10 (77.0%)	3 (23.0%)	13(100.0%)
7	VII	03 (50.0%)	03 (50.0%)	06(100.0%)
8	VIII	06(67.0%)	03 (33.0%)	09 (100.0%)
9	IX	11 (73.0%)	04 (27.0%)	15 (100.0%)
10	X	5 (71.0%)	2(29.0%)	7 (100.0%)
11	XI	2 (100.0%)	0	2 (100.0%)
12	XII	3 (100.0%)	0	3 (100.0%)

Source: Household census, 2017

The girl's hostel is functional at Danauli and it is exclusively meant for Scheduled Tribe girl students who are pursuing their education at primary and middle schools. In this hostel, 29.16% of the boarders are from Baiga community who are presently studying at the primary level and 27.27% at middle and higher secondary levels.

Table: 4 Student Strength in Primary School of Baiga Settlements, 2015

Sl. No.	Standards	Pakhri Katchar			Chuila Paani			Media Katchar		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1	I	2 (50.0%)	2 (50.0%)	4 (100.0%)	1 (50.0%)	1 (50.0%)	2 (100.0%)	1 (33.0%)	2 (77.0%)	3 (100.0%)
2	II	0 (100.0%)	2 (100.0%)	2 (100.0%)	3 (60.0%)	2 (40.0%)	5 (100.0%)	4 (44.0%)	5 (56.0%)	9 (100.0%)
3	III	4 (100.0%)	0	4 (100.0%)	3 (38.0%)	5 (62.0%)	8 (100.0%)	2 (67.0%)	1 (33.0%)	3 (100.0%)
4	IV	0 (100.0%)	1 (100.0%)	1 (100.0%)	1 (25.0%)	3 (75.0%)	4 (100.0%)	6 (75.0%)	2 (25.0%)	8 (100.0%)
5	V	1 (50.0%)	1 (50.0%)	2 (100.0%)	2 (40.0%)	3 (60.0%)	5 (100.0%)	3 (43.0%)	4 (57.0%)	7 (100.0%)

contd.....

Sl.No.	Standard	Khari Debra			Karangara		
		Boys	Girls	Total	Boys	Girls	Total
1	I	1 (25.0%)	3 (75.0%)	4 (100.0%)	9 (50.0%)	9 (50.0%)	18 (100.0%)
2	II	1 (25.0%)	3 (75.0%)	4 (100.0%)	7 (44.0%)	9 (56.0%)	16 (100.0%)
3	III	1 (33.0%)	2 (67.0%)	3 (100.0%)	5 (45.0%)	6 (55.0%)	11 (100.0%)
4	IV	1 (33.0%)	2 (67.0%)	3 (100.0%)	7 (44.0%)	9 (56.0%)	16 (100.0%)
5	V	2 (50.0%)	2 (50.0%)	4 (100.0%)	14 (78.0%)	4 (22.0%)	18 (100.0%)

Source: Household census, 2017

The total literacy rate of Pakhri Katchar is 55.55% which includes 67.01% of male literates and 44.55% of female literates. In case of Chuila Paani, the total literacy rate is 48.29%, of which 55.62% are males and 40.55% are females. Furthermore, the literacy rate of other Baiga settlements like Media Katchar (43.60%), Khari Debra (65.03%), Pathra tola (33.33%), Karangara (40.54%), and Baidkudra (35.52%) are also encouraging compared to the present level of enrollment at primary school. The rate of Baiga education is high in Media Katchar and low in Baidkudra. Media Katchar is located near the main road, whereas the Baidkudra is located on the hillock which falls on the border of Madhya Pradesh and Chhattisgarh. The Karangara primary school caters to the educational needs of the Baidkudra and it is located at the foothill at a distance of four to five kilometers.

It appears from this result that the educational status of Bhumia Baiga is far from encouraging when compared to other tribal and non-tribal populations in the study area as majority of their wards are enrolled in schools. Even the existing literacy rates in Baiga hamlets could be attributed to the successful functioning of pre-school education in Baiga hamlets. As such, the pre-school facilities in Baiga hamlets are discussed below to understand the efforts of the state as well as central governments in the development of education among the primitive tribal groups.

Table: 5 Student Strength at Danauli *Anganwadi*, 2015

Sl. No.	Category	Boys	Girls	Total
1	ST	12 (35.0%)	22 (65.0%)	34 (100.0%)
2	Gen	3 (30.0%)	7 (70.0%)	10 (100.0%)

Source: Household census, 2017

Table 6 reveal that the student strength of *anganwadi* at Danauli is different from that of the Baiga settlements. In the latter, the frequency of girl students is higher compared to boys. In Chilapaani, Baiga girl children constitute 78%, followed by 22% of Kol, Baiga and Gond and other backward class; in Khari Debra, Baiga children represent 70% against the 2% Gond and 28% other backward class; in Karangara, Baiga constitute 45% against the 45% Gond; Baidkudra *anganwadi* is represented only by the Baiga children.

In Danauli proper, the children belonging to different social backgrounds ranging from Scheduled Tribes to Scheduled Castes, and other backward classes are attending the *anganwadi* centres.

Table: 6 Student Strength in *Anganwadi* of Baiga Hamlets, 2015

Age group	Category	Baiga	Kol, Baina & Gond	OBC	Total
<b>Chuila Paani</b>					
0-3	ST Boys	11 (65.0%)	04 (24.0%)	02 (11.0%)	17 (100.0%)
	ST Girls	10 (83.0%)	0	02 (17.0%)	12 (100.0%)
3-6	ST Boys	4 (44.0%)	05 (56.0%)	0	09 (100.0%)
	ST Girls	8 (73.0%)	2 (18.0%)	01 (09.0%)	11 (100.0%)
<b>Pakri Katchar</b>					
0-3	ST Boys	3 (50.0%)	3 (50.0%)	0	06 (100.0%)
	ST Girls	3 (43.0%)	4 (57.0%)	0	07 (100.0%)
3-6	ST Boys	2 (33.0%)	4 (67.0%)	0	06 (100.0%)
	ST Girls	6 (46.0%)	6 (46.0%)	1 (8.0%)	13 (100.0%)
<b>Khari Debra</b>					
0-3	ST Boys	10 (100.0%)	0	0	10 (100.0%)
	ST Girls	0	0	09 (100.0%)	27 (100.0%)
3-6	ST Boys	06 (75.0%)	0	02 (25.0%)	08 (100.0%)
	ST Girls	06(50.0%)	01 (8.0%)	05 (42.0%)	12 (100.0%)
<b>Karangara (Baiga Para and School Tola) *</b>					
0-3	ST Boys	10 (50.0%)	10(50.0%)	0	20 (100.0%)
	ST Girls	6 (38.0%)	10 (62.0%)	0	16 (100.0%)
3-6	ST Boys	7 (44.0%)	09 (56.0%)	0	16 (100.0%)
	ST Girls	13(52.0%)	12 (48.0%)	0	25 (100.0%)
<b>Baidkudra*</b>					
0-3	ST Boys	06 (100.0%)	0	0	06 (100.0%)
	ST Girls	05 (100.0%)	0	0	05 (100.0%)
3-6	ST Boys	04 (100.0%)	0	0	04 (100.0%)
	ST Girls	02 (100.0%)	0	0	02 (100.0%)

Source: Household census, 2017

\*enrolled exclusively by Baiga students

The enrollment of Baiga children is more in *anganwadi* school located at the Biaga settlement due to the efforts of *anganwadi* and non-governmental organizations. The elder members of the Baiga households go to collect forest products or remain engaged in agricultural works and leave their kids at home. The sub adult children take care of their younger ones. The drop-out rate was more in the past. At present, the children aged between 0-3 and 3-6 years are enrolled at nearby *anganwadi* where they learn the basic alphabets and get share of nutritious food. Thus, pre-school education centres are now playing

an important role in increasing the enrollment of Baiga children in primary schools.

#### *Attitude of Parents*

Around 90% of Baiga parents do not have a positive attitude towards education of their children. It is evident from the prolonged absenteeism of students during rituals and ceremonial occasions. The habit of consumption of *mahuwa* (country liquor), keep them intoxicated throughout the day. Thus, the elders of the household are not in a position to pay attention to send their children to school. As a result, children play and roam at their homes. Further, Baiga engage their children for grazing of cattle, look after of the younger siblings and in collection of forest products.

#### *Curriculum and student's perception*

The medium of instruction at primary and middle level school is Hindi, which is prepared by the State Council of Education, Research and Training (SCERT), Chhattisgarh. The subjects like Hindi, English, Mathematics, and Natural Science are taught at the primary level; in addition to these subjects, Science, Social Studies and Sanskrit are taught at middle level. The local dialect does not find a place in their curriculum, and learning is totally imposed from outside. The present curriculum is activity oriented, but the teachers are not acquainted with it. As a result, the teachers are not in a position to impart knowledge among the students.

The perception of Baiga children towards education, as appears from the literacy rate seems to be encouraging, but at the same time school absenteeism is very frequent. The students who continuously attend the school are showing interest and are actively participating in discussion with the teachers; whereas the students who remain absent for a longer period do not show much interest as they could not understand the previous lessons. As they are subjected to ridicule of co-students, they feel shy to interact with the teachers. Although text books are provided to them by the schools at free of cost, yet the Baiga parents are unable to get copies, pens, pencils, slates, chalks to their children. As a result, the students of this community could not take proper class notes and fail to come up to the desired level.

In Baidkudra school, the students are hesitant to communicate with the teachers. Thus, the teaching learning process remains incomplete. Furthermore, the 'no detention policy' of the school is giving a liberty to the students to remain absent from school.

#### *Educational infrastructure*

Except Baidkudra/Sarahkona primary school, other schools in the study area are having *pucca* school building, playground and hand pump and toilet facilities for boy and girl students. But it was observed that the hand pump of the school is not working and the school building is dilapidated. Although the ambience of the school is congenial for education, but after returning



home the children could not study for a prolonged period because of lack of electricity in their area. The education department of Chhattisgarh State is providing free books, uniform, scholarship to the enrolled students. The provision of mid-day meal is the main attraction for improving student's attendance.

Due to location of Baidkudra, which is on the border of Madhya Pradesh and Chhattisgarh, the primary school children of this village are facing problem as their settlement does not have primary school close by within the state of Chhattisgarh. So they are attending a school located at Sarahkona, which is just one kilometer away, under Bijouri *Gram Panchayat* of Anuppur district of Madhya Pradesh. Since the state is different from where they live, the names of the students hailing from this village do not appear in the school record.. The Karangara primary school, which is located four kilometer away at the foothills is the primary school for both Karangara and Baidkudra villagers. But because of distance, the primary level students could not commute to the school daily. Now, a hostel facility is provided at Karangara and even the pupils studying in the standard one are residing in the hostel.

#### *Pedagogy and teachers' approach*

The school pedagogy is student friendly and the teachers use *Chhattisgarhi* dialect to explain the concepts of science and mathematics. The teachers impart activity-based education more compared to structured course curriculum. In standard one, the Baiga children face problem in understanding Hindi as they only speak in *Baigini*, their mother tongue. Majority of the teachers are non-tribals and could communicate with them with great difficulty. However, some teachers have easily picked up the local dialect and use it as a communicating medium.

Table 7: Social Background of Primary School Teachers in the Study Area

Sl. No.	Primary school	No. of Teachers	Social Background
1	Karangara	02	Baiga and Scheduled Caste
2	Baidkudra/Sarahkona	02	Yadav and Brahmin
3	Media Katchar	02	Namdeo and Kol
4.	Chuila Paani	02	Gotia and Brahmin
5.	Pakhri Katchar	02	Gond and Brahmin
6.	Khari Debra	02	Non-tribal

Out of the twelve primary teachers, only three tribal teachers exist in the study area and the remaining are all non-tribal teachers. Majority of them commute to school from nearby villages and towns. Even then, teachers do visit the Baiga households to motivate their parents as well as children regarding the significance of schooling. It was also observed during the school hours that the teachers are student friendly and supportive in getting the educational aids for the students.

The key informants revealed that the intervention of State Health Resource Centre (SHRC), and non-governmental organizations like SAMERTH and Karmadaksh are catalytic in enhancing educational services to the Baiga children. Every year they conduct door to door survey and initiate action through school teachers for enrollment of drop out children in the Baiga area. They are working for the creation of amenable conditions for the Baiga children to access primary education through early child education center. The staff members of SAMERTH promote creative learning and interest among the children towards formal education. Further, they motivate and persuade the school management committees to be accountable to the Right to Education movement and assist in the preparation of school development plans. Furthermore, they are also promoting awareness and encourage the parents of the children to take part in the School Management Committee (SMC) meetings. The coordinators of SAMERTH visit *Balmitra Kendras* for teaching the students and distribute picture books, story books, nutritious food, woolen clothes (sweater), pencils and erasers to the children.

#### CONCLUSION

The study reveals that the educational scenario of the Baigas living in *Dhanoli gram panchayat* of Bilaspur is improving. The government initiatives of mid-day meal and *Sarva Siksha Abhiyan*, are perhaps driving the children to study up to primary level. Although the dropout of students at secondary and higher secondary levels persists yet at primary level the dropout rate has declined sharply. Perhaps the distance of high school and colleges from their settlement and lack of transport facilities could be the major reasons for this trend. Poor economic condition could be another plausible reason which is compelling them to join the labour force at mid childhood onwards.

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## **Al-Biruini and his Anthropology**

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### INTRODUCTION

Anthropology is usually regarded as the study of mankind inclusive of biology, society and culture as a whole of all places and all times. Modern professional or practicing anthropology has its origin in west as developed and contributed primarily by western thinkers and scholars. The discipline is bearing Euro-American traditions which are reflected in its growth and development including theories and methods those tested empirically on ethnic and folk communities, primarily among non western communities or societies. It is very difficult to ignore that anthropology is bearing colonial or neo-colonial legacy and this is very much true for India which is known not only for its anthropological significance but also for existence of world's large number of professional anthropologists.

Discourses of anthropology or the literatures of the discipline compelled us to believe that the western (British, American, French, and German etc.) scholars were the pioneers or masters of anthropological studies of non western countries to which non western scholars have a little space of claiming any authority. But in post colonial phase and post modern knowledge era it is now appeared that there were many non-western scholars of Asia, Africa, Latin America and many other places those who had also significantly contributed to anthropological knowledge of their own countries or of other countries. But unfortunately their contributions are neglected, dishonored and even suppressed by the power or by the reactionary forces. Fortunately, this way of controlling knowledge is getting free day by day.

In this short paper (communication) I have made an attempt to highlight the works and contributions of a great Persian Scholar of middle age who significantly contributed to anthropological knowledge of India through his travel and scientific enquiry. The paper is based on facts gathered through review of relevant literatures.

[2]

*Al-Biruini - an Early Exponent of Modern Anthropology*

Abu Rayhan Muhammad Ibn Al-Biruini was an Iranian Scholar, born (5<sup>th</sup> September 973) in a place called Khwarezham, a place located between modern Western Uzbekistan and Northern Turkmanistan and died (1050) at Gazani

in Afganistan. He was the great scholar of Islamic (Muslim) golden age. He is now regarded as Imam, scholar and polymath who significantly contributed to anthropology, sociology, geography, Indology, astronomy, geometry, logic, philosophy and many other academic disciplines of today.

There are some scholars today of both east and west who have critically reviewed and examined the biographies and works of Al-Biruni and even some are engaged in doing research on his contributions on varied fields. The scholars these who worked on him have the common view that Al-Biruni is a versatile genius as well as a great scholar (Ahmed , 2019; Momin, 2017) . His knowledge and works on India must be respected and recognized as a pioneering works on people and society of this country.

In the context of India Al-Biruini is important in the way that, he was the first non Indian and non Hindu but an Asian Scholar who did significant works on India and her people as well as society. Al-Biruini accompanied Mahamud of Ghazni as a scholar to serve the court of Ghazni and stayed in this country for many years. He travelled widely, learned local languages as well as Sanskrit, studied the Indian classical sacred texts as well as consulted the translated texts in Arabic or Persian, mixed with the people and talked with both the elites (priests) as well as the commons. He composed several books of various subjects on India. Even he documented as well as composed numerous myths, lore's, tales and legends. These show the encyclopedic nature of his work on India. He had a rigid love for exploring or discovering truth by way of gathering facts. His biographer have a feeling that this great man perhaps was a person who never had the pen out of his hand and his thoughts never directed by belief and imagination. (Douglas: 1973, Kennedy: 2008, Rosenthal: 2010, Salbia: 2010)

[3]

*Anthropological Works of Al-Biruini:*

Having giving above outline let us see what Al-Biruini had to say about India and her people, society, culture, literature, religion, philosophy and science. His works on Indian society and culture considered as the most important encyclopedic work as well as an early anthropological / ethnographical account. Among his many works the two most important are, Kitab-al-Hind and Al-athar-al-baquiya filqurun al-khaliya al-Hind are the most important. These two works are his significant contribution towards the study of Indian society and comparative religion.

Kitab-al-Hind was written in between 1017 – 1031 is an encyclopedic compendium on Indian people, society, cultural and religion. For this work he travelled to several parts of India and stayed in many places, meets with the people studied sacred language (Sanskrit), consulted with the people and interviewed them to learn their religion, beliefs and philosophy of life, particularly of Hindus.

His work of *Kitab-al-Hind* was translated by German orientalist Dr. Sachu, first in Germany and later in English in 1888. The translated book is titled as *Alberuni's India*. This book is a critical study of what India says or speaks. In this book Alberuni has elaborately described the Hindu social structure in which caste, color (*varna*) and classes in Indian Hindu society were described in details. In this book he not only documented and described the Hindu social system but also highlighted, the Hindu customs, rituals and even the women's issues like matrimony, menstrual courses, embryos and child birth.

Several evil social practices in the then Hindu Society like child marriage, prohibition on widow remarriage, Sati and *Jahar* was also pointed out in this book. *Kitab-al-Hind* is basically an anthropological account of India based on field investigation appeared in original title *Tahqiq-ma-al-Hind* i.e. investigation of India actually reflects his own scientific disposition and temperament. The book was written in the first half of eleventh century is also considered as the detail study of the beliefs, customs, rituals, laws, philosophical traditions, centers of pilgrimages, sacred places, ceremonies and festivals of Indian Hindus. While examining Hindu society and culture he noted the fact that the cultural pride of the Hindus was become an essential part of their social and cultural defense against the onslaught of external cultural forces. Alberuni's *India* is also an account of Hindu-Muslim social/cultural boundaries and identities particularly in respect to religious beliefs and practices.

*Kitab-al-Hind* is actually an ethnographic account of Al-Biruni. The most unique feature of this book is that it nicely contributed the textual study of the author on Hinduism supported by field view of the scholar on India through interaction and observation of the people and their life ways. Al-Biruni met Brahmin Priests and Sanskrit Scholars (*Pandit*) for wide ranging discussion with them on Hindu scriptures as well as on Hindu beliefs and customs. He personally visited Hindu centers of pilgrimages and other sacred places and clearly observed as well as noted the rituals, sacrifices and ceremonies. This study is important not only for its wider coverage and richness of ethnographic data, but also for its solid objectivity and dispassionate approach of the author. He not only satisfied by the discovery of the facts but also examined and interprets them to understand their meaning. In this sense he was both positivist as well as interpretationist.

Al-Biruni's work was not only confined to Hindu society, but also extended to comparative history and religion. He meticulously noted the beliefs, dogmas, and rituals, festivals of Judaism, Christianity, Islam and Hinduism. He was influenced by spiritualism and mysticism thus studied Sufism and mysticism of India. His scholarly bend of mind also attracted his attention to study the pre Islamic past of Arabian culture. His many works on India actually shows a valuable source of information about economy, political, religious and social conditions of traditional India.

In Al-Biruini's account of India it was noted that Indian (Hindu) society is caste ridden. The supremacy of Brahmin in Hindu society was attracted his attention and also noted that only the Brahmins have the right of salvation and they enjoy the sole privilege of reading the religious books i.e. Hindu scriptures and idol worship.

In his account of India he clearly described the geography of the land as well as its political condition and observed that the people of the country had no strong feeling of nationalism, rather country was fragmented into numerous independent states and each state was jealous to one another and engaged in fighting with each other. (Dani: 1973; Kumar: 1993; Sachu: 1993; Ahmed: 2019, Momin: 2017).

[4]

#### METHODOLOGICAL CONTRIBUTIONS OF AL-BIRUINI

##### *Al-Biruini's Methodology:*

Al-Biruini's methodology of the study on Indian society was highly rigorous and extended. His method was not to speak much but allow people (Hindus) to speak about them and also to know how they perceive their religion, culture and customs. Al-Biruini's method of gathering information by allowing people to speak helped him to get the picture of Indian Hindu culture and civilization as pointed by the people themselves (Hindus). For obtaining insider perspective he also depended on the Hindu literary sources and for which he himself learned Sanskrit from Brahmins for reading the Hindu religious books.

He freely travelled to many places, interacted with many people, and observed the customs for gathering information. His way of meeting and interacting with the people without much trouble clearly indicates his ability of establishing rapport and friendship for collecting data is undoubtedly very unique.

Al-Biruini had extra local or trans local visions which perhaps shaped his own perception and also about perception of other people and other culture. It is very interesting to note that Al-Biruini studied Sanskrit with a view to read the religious or philosophical books of Hindus. He also talked with the Brahmin priests to know their social position in Hindu society. He was the person who rendered Puranas and Bhagwadgita into Persian for allowing Persians to know about Hindu religion. The unique feature of Al-Biruini's study is that it combines both textual study with the field view of Indian Society.

The core components of anthropological methodology what we learned from our courses and again teach to our students includes field investigation, meeting with the people, learning their language, taking with them and nothing their life ways through extended observation and also to consult their primary texts if available. We also learned that the findings of the study to be presented with clear cut objectivity and value neutrality and also to place

them for a cross cultural comparison if possible. Now it is clearly seen that all those components were present in Al-Biruini's work. This clearly shows that thousand years before the emergence of modern professional anthropology as developed by our western masters (scholars), there were non-western scholars like Al-Biruini who did his in-depth research on India in the same manner what we do in anthropology today. This proves that the vision of seeking knowledge and understanding of "other" and "other culture" is not only the creation of west but much earlier by the scholar of east.

Al-Biruini's account of India is an important document of eyewitness and value free study. He strictly avoided in making value judgment, what the western anthropologists usually do, out of their "progressivist" thesis. His study may be regarded as an account of on foot ethnography. His famous work *kitab-al-Hind* is a classical work and which is a clear example of the empirical account of Indian Hindu society as well as an ethnographic text based on remarkable objectivity. His field view supported by textual studies is undoubtedly a remarkable methodology for knowing the concerned people. Considering all these Al-Biruini may be regarded as a pioneering advocate of the method of field work. (Ahmed: 2019, Sachu: 1993, Mondal: 2008; Momin: 2017).

[5]

*Spotlight on the Specific / Concluding Remarks:*

Albiruini's work on India has clearly shown the essential components of contemporary scientific standard of anthropology as well as of other natural, human and social sciences. His study clearly shows his clear vision of examining and knowing other regions and societies through best sources of their information. Al-Biruini travelled extensively and widely took notes and interviewed the people to learn from them. He invented the method for the study of "other society" and "other culture" which is not only rigorous but also just. He had a universal mind and keen desire to go into deeper and deeper for the search of truth. Al-Biruini's work on India is a typical example, which shows that before the emergence of anthropology as a discipline in the west, non western scholar like Al-Beruini conducted the similar nature of studies, what we call anthropology today.

Now a day's Al-Biruini is considered by many veteran scholars both of eastern and western countries as the first anthropologist who has opened the theoretical, methodological and empirical gates of natural, human and social sciences almost thousand years before (Momin, 2017). There is no doubt that Al-Biruini is the greatest of early modern anthropologist. Scholar like Dumont also considered that Al-Biruni's methodology is quite extended for the study or caste, kinship and society of India. Famous British scholar of South Asian origin Prof. Akbar Ahmed designated Al-Biruini as world's First Anthropologist. Indian Sociologist Prof. A.R. Momin regarded him as the first Anthropologist of Islam.



Al-Biruni was not simply a great Muslim scholar of his time but also a true Muslim in the sense that he followed the Quranic structure to seek knowledge (Ilm) and also followed the Holy Prophet's (PBUH) directives for Muslims to acquire knowledge even if it require to go far at a distant place from some one's own. He strongly believed that God (Allah) is the creator of all things, all places and all peoples irrespective of their color, caste and creeds and strongly believed that Islam has neither hindered him from his enterprise nor his Muslimness is compromised for the study.

In contemporary era of several crisis, complexities and turmoil's faced through tensions, anxieties, conflicts, ignorance, neglect, mistrust, misunderstanding and hatred Al-Biruni's visions and missions seems to be very important. In the era of conflicts and clashes between people's cultures and civilizations Al-Biruni's visions, works and messages have much to teach us at present. It is also to be noted that re-readings of Al-Biruni's works is very essential for current generation scholars as these have much potentials for inter-cultural understanding, more precisely to understand Islam and Christianity or Muslim and Christian relation in West and Hindu-Muslim relation in India.

In recent years we are celebrating hundred years of professional anthropology in India, on this auspicious occasion we are remembering and reflecting the classical works of anthropology those conducted by Western and Indian Scholars. On this particular occasion I have a humble submission that we must remember Al-Biruni and his contributions for anthropological works on India.

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## Conservation of Archival Records with Reference to Indigenous Method

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Conservation of archival records, the legendary past, preserved in the different museums, libraries and cultural heritage centres are primarily the manuscripts written on handmade paper, palm leaf, *bhurja-patra* (birch-bark), parchment, velum. These invaluable documents urgently need to take proper care and conservation for future generations to come. Otherwise due to various insidious environmental factors, living vermin, fungus and physical factors, like, light, heat, moisture will damage these in no time.

The climatic factors, like, light, heat, moisture and atmospheric pollutants, like soot from carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) for plying mostly heavy motor vehicles converted the pollutants to carbolic acid (H<sub>2</sub>CO<sub>3</sub>), sulphur dioxide (SO<sub>2</sub>) from industrial waste converted to sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) with oxygen (O) and nitrogen oxide (NO) from air converted to nitric acid (HNO<sub>3</sub>) with oxygen and all the pollutants corroded the paper objects.

High humidity and temperature are the worst physical enemies of paper materials. The hot humid and dry season of Bengal favour biological growth of obnoxious insects, like, nocturnal silver-fish (*Lapisma saccharina*) with two projected antenna like structures on head and parasitic book-lice (Psocoptera) attack paper as these insects have a liking of lignin, gelatine of paper as food and fungus micro-organism.

The recommended level of ideal relative humidity (R.H.) ranges between 45% and 65% and the temperature between 20<sup>o</sup> C. and 24<sup>o</sup>C. to control the menace of the insects. But the natural temperature is not remaining within range of specified limit through the year round. For which to control heat air-conditioning is suggested as means, but only a few big financially stable museums can afford such a facility, even occasionally for mechanical defeat stopped, which is even more harmful than good.

Relative humidity above 65% is prone to grow the parasitic saprophyte micro-organisms, like floppy white or blackish-white cryptogamous fungi, like, *Aspergillus niger* (main fungus), *Aspergillus flavus*, *Aspergillus fumigatus*, *Altermaria alternata*, which cause stain and embrittlement of paper. To avert fungal attack fumigate paper periodically in a felt lining tightly closed thymol fumigation chamber with 50gms. thymol crystals (C<sub>10</sub>H<sub>14</sub>O) in glass container with 40 watts two bulbs fitted lower trellis shelf. With 15 minutes slight heat thymol vapourized and percolates through the paper leaves and kept close

the chamber for 24 hours. But this treatment has no lasting effect as fungicide and hence, need some retreatment for another 24 hours. Or spray 10% solution of thymol in rectified spirit ( $C_2H_5OH + O_2$ ) or fumigant methyle phenol. But precaution is to be taken as rectified spirit causes fire-hazard in naked fire. Or fumigation with 40% formaldehyde (HCHO) vapour is powerful germicide. As an imperative need, clean the paper materials periodically by an automatic vacuum cleaner.

The easy acceptable device for controlling excessive humidity is to keep 500gms. dehydrated bluish silica-gel ( $SiO_2$ ) crystals in 1cubic metre enclosed space in glass or porcelain bowl brings a fall of 16% to 20 % R.H. in 45-60 minutes. The porous silica-gel is capable of absorbing as much as 40% of its weight and moisture saturated bluish silica-gel turns pink, which can be reactivated by heating in a frying pan for 45-50 minutes. So, reuse of it is economic too.

For controlling humidity simply by putting hygroscopic cotton balls or even shell quick -lime ( $NaOH + Ca(OH)_2$ ) - calcium hydroxide lump in porcelain or saw-dust shelves displaying paper materials for dehumidification as an indigenous method. Use of quick-lime has one disadvantage as the spitted jumping bubbles of it spoil the paper leaves, a situation between Scylla (GK. monster) and Charybdis (a sea-monster), mentioned by William Shakespeare in his Greek epic Odyssey. The saw-dust makes shelves dirty.

The fibrous cellular paper being hygroscopic it swells and changes recurrently its dimensions, looses its strength and becomes limp and fragile.

For controlling micro-organisms attack on paper ensure plenty of ventilation in the museum building for eary flow of air and light as preventing measure.

Light in the archives mostly artificial florescent tubes are used, whose luminosity is high and all these light sources are to be covered with ultra-violet absorbing filters, like acrylic sheet sleeped over the light sources or slightly yellowish Plexiglas UF-3 Whatever little UV radiates, even using the filters, will bring into photo-chemical action and damages the exposed archival delicate paper materials. The illumination intensity of light recommended not to exceed 50 lux, though the minimum intensity of light needed for visibility is about 15 lux.

Fragile paper is mostly laminated for strengthening with thin transparent Lenz tissue paper (.002 mm. thickness) placed on both sides of the acid free paper or commonly with cellulose acetate foil and by pressure of a lightly heated electric iron the tissue paper or foil will attach to the paper firmly and letters have clear visibility for its transparency.

Earlier fine thin silk chiffon with flour paste mixed with finely powdered *tunte* (Blue vitriol- Copper sulphate ( $CuSO_4$ )) as insecticide was used for lamination, later dextrin instead of *tunte* was used for laminating paper. Use

of chiffon made the letters illegible, obscure with growing years. Hence, that process was discarded.

Again every 20-25 years after reversible resilking was necessary with acetone ( $\text{CH}_3\text{COCH}_3$ ). Chiffon lamination increases the weight of the paper.

Before doing any chemical treatment acidity of paper is tested with distilled water moistened blue litmus strip, if it turns red indicates very acidity, orange, moderately acidity, while red litmus strip turns blue, very alkaline, bluish green, moderately alkaline.

De-acidification is done by saturated white barium hydroxide. Even neutralise acidity with ammonia hydroxide ( $\text{NH}_3$ ), a chemical compound of hydrogen (H) and nitrogen (N).

If the pH value (concentration of hydrogen and hydroxyl ions in terms of weight per volume) is less than 7+ 05, is acidic, if above, alkaline. Acidity makes paper brown and brittle.

Rusty brown stain spot is found on paper, known as foxing, caused for not complete removal of present iron salt to the extent possible during manufacturing of paper and that iron salt decomposes first into iron oxide ( $\text{FeO}$ ) and then turns into iron hydroxide ( $\text{Fe}_2\text{O}_3$ ) with moisture and ultimately foxing starts on the paper.

Removal of foxing stain is done by using organic solvents, like, toluene ( $\text{C}_7\text{H}_8$ ) fumigant or very light white powder chloramines - T ( $\text{C}_7\text{H}_7\text{ClNO}_2\text{S.Na}$ ) in alcohol or in 100 ml. water instead of alcohol as bleaching reagent or with oxalic acid ( $\text{C}_2\text{H}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ ).

If letters are illegible 50% glycerine/ glycerol ( $\text{CH}_2\text{OHCH}(\text{OH})\text{CH}_2\text{OH}$ ) and 50% alcohol mixed together if applied make letters legible. But better to use 5% polyvinyl acetate ( $\text{CH}_2\text{CHOOCCH}_2$ ), a synthetic resin in 100 c.c. acetone as the previous solution turns black carbon ink faded, for which it is often said that “ $\phi R \phi s \phi e e \phi R \phi s j \phi p$ ” meaning is that paper tears but writing is not obliterated.

Archival records should not be touched by bare hands as uncleaned, oily, greasy, sweated or wetted hands stain the paper.

Gummed tape or cellulose tape / cello-tape (scotch) for reinforcement or for meaning paper stains and tears the page when need to remove it. It can be removed carefully by *sonna* (tweezer-a surgical forceps) after wetting paper or by methyl acetalin.

Galvanized iron paper clip is not advisable to use for clipping papers together as it oxidized and stained rusty brown and embrittles the pages with the passage of time. Such stain can be removed indigenously by sour juice of *amrul* (*Oxalic reetriculus*) leaves.

For photography repeatedly exposure under the direct sun, even if for a brief period is not advisable. Again the heat produced and emitted out from

the flash of camera gun degraded the strength of the tissues of the page. So, discarded. A negative of the page is made ready from which print serves the demand as and which required.

Packing of paper manuscripts will tissue paper or acid free brown paper wards off harmful agents. This system is easy for unpacking when required. Polyester (a King of synthetic terylene) film encapsulation of manuscript avoids pollution, weathering and bio-deterioration. But this process has one disadvantage that every time capsulation requires to remove for reading need in every time.

### **Handmade paper**

The constituent materials of paper are rag, carded cotton, jute, bamboo, wood, rice straw, hemp, flax, etc. These materials are chopped, beaten down, rotten and boiled with shell-lime to prepare a slurry paper pulp. Lime is added to make the pulp alkaline and the paper white.

The paper is cellulose ( $C_6H_{10}O_5$ )X- small porous cell having other constituents, like, lignin, carbohydrate and starch. Moreover, during paper manufacture other sizing materials, like, gelatine, resin, alum are used for smoothening and whitening its surface for facilitating writing and printing. Lignin is present in large quantities in bamboo and wood papers and it is more vulnerable to destruct by acidity. Alum is also a source of paper acidity. Acidity also acquired on ageing of paper. Acidified paper crumbles into dust.

The pulp is placed flatly on a wooden plank, measuring 20"-65" and by another plank of same size compresses tightly to make it uniformly flat and to remove its watery content. The wooden frame is called locally *deckle*. After drying gently rubbed the sheet with a flat stone piece and cut its slightly irregular and wavy edges into the required sizes. Rag paper is more durable and safe for preservation point of view than any other types of paper.

China claims the credit of inventing paper in 105 A.D. by T. Sai (Cai) Lun, an eunuch as hand craft in using mulberry plant best inner bark and hemp waste. It became widespread in China in 3rd century A.D. as her talent. During the Tang Dynasty (618-907 A.D.) paper was folded and sewn into square bags to preserve the flavour of tea, while the later Song Dynasty (960-1279 A.D.) government first issued paper-printed money.

In the 8th century refined process of paper making was spread to the Islamic world in Samarkand, Baghdad, Damascus, Morocco. Cairo and machinery was designed for bulk production. Samarkand prepared pulp for paper making. In Baghdad paper making was under the supervision of the Grand Vizier Ja'far ibn Yahya. Modern paper making began in 19th century A.D. in Europe and the produced some paper 150 meters in length and 10 meters wide. In the present day handmade paper is made mechanically with hydraulic press very gently by the *khadi* commission. Then paper sheets are dried either by vacuum drying or simply by air drying.

Manual handmade paper was largely made by a sect of Muslim, named *Kagagi*, residing mostly in Murshidabad and Hooghly, as mentioned by Md. Iyakub Ali, Ex-Headmaster of the Rajarampur High School, which was also reported by Nirmal Kumar Basu in his book, 'Hindu Samajer Garan', pp.143-145.

Writing was done on handmade paper with an ink prepared indigenously with *til* (Sesame- *Sesamum indica* Linn.), *triphala Emblic myrobalan-Embalica officinalis* Gaertn.), *beheda* (*Terminalia belerica* Retz.) and *haritaki* peel (*Myrobalan -Terminalia chebula* Retz.) together and *shimool* bark (Cotton tree - *Gossypium herbaceum* Linn.), rubbed in an iron pot mixed with goat ink, giving a durable fast fugitive black ink. *Sani Satyanaran* doggered *panchalis /punthis* (manuscripts) were written with such an ink.

But the *satras* (monastories), numbering 650 of 16th A.D. of Shankaradeva (1449-1568), Madhavadeva (1489-1585), Damodaradeva of Majuli island of Assam prepared ink indigenously from *silikha* (*Terminalia citrina*) extract and bull urine, which gives a durable glossy and slippery black ink and the writing pen was goose quill for ahom *punthis* of *Vaishnavite* literature.

Nowadays iron gall ink or often sepia shell cattle fish or cochineal insects ink is used for writing with a pointed reed or bamboo twig pen. Excess ink drop is cleaned by a cotton swab with alcohol or glycerine.

Handmade old and rare manuscripts, numbering about eight thousands including Krittibase *Ramayana* are well-stocked in the Manuscript Section of Calcutta University and the *Ramcharitmanas* in the Asutosh Museum of Indian Art. The Bangiya Sahitya Parisahd Museum, Asiatic Society, Ramkrishna Mission Institute of Culture Museum and Art Gallery, Golpark, Kolkata, Rabindra Bhavan, Santiniketan, Acharya Jogesh Chandra Purakirti Bhavan, Bishnupur, Bankura, Odisha State Museum, Bhubaneswar, Mahajana Buddhist monastery at Chhola, Kakjhora, Gandhamadan Buddhist Vihar, Darjeeling, Kalimpong and the other Buddhist monasteris at Romtak, Peeling, Arunachal Pradesh, Tibet House Museum at Jor Bagh, New Delhi, Saraswati Mahal Library of the Tanjavur Art Gallery in the Palace Building, *Saivite math* (temple) at Erode Tamilnadu and the Ranamala Library at Comilla in Bangladesh have handmade paper manuscripts.

The indigenous *laissez - faire* conventional followed methods as gleaned from references for preservation of paper archival materials are dry neem leaves (*Melia azadirachta* Linn.=*Azadirachta indica* A. Juss.) are considered as *sarva roga nivarani* (all diseases cured), Powdered *tamak* leaf (Tobacco leaf- *Nicotiana tabacum* Linn.), *dhutura* leaf (Thorn apple), dusted *marich / lanka* (Chilli-red pepper-*Capsicum frutescens* Linn.), *golmorich* (Ground pepper- *Piper nigrum* Linn.), pulverized *daruchini* bark (Cinnamon -*Cinnamomum comphore* Nees=*Cinnamomum zeylacicum* Nees), *tejpata* (Bayleaf/ Cassia leaf - *Cinnamomum tamala* Nees & Eberum.), tropical *labanga* (Clove-*Syzgium alomaticum*), *kala jira* (Black cumin -*Nigella Sativa* Linn.), *jira* (*Carum Carui* Linn.), *ajowan / jowan* (*Trachyspermum amni* Sprague = *Carum Capticum* Benth.) for pungent smell,

*tulsi* (*Ocimum Sanctum* Linn.), amni spnaque (*Carum Capticum* Benth.), *deoder-coniferous* pine (Cedar –wood) as deodorizer , *jhau* (*Tamarix dioice* Roxb. ex.Roth), an evergreen shrub feathery branch for its odoriferous fragrance, *ghora-bach / nal –khagra* (Sweet flag or sweet reed grass (*Acorus Calamus* = *Phragmites Kharka* Twin X Stend), largely used by the Oriental Research Institute at Vadodara in Gujarat and the National Mission for Manuscript Preservation, New Delhi and its Calcutta University Centre and volatile *karpur* (Camphor ( $C_{10}H_{16}O$ ) of Camphor- laurel are kept in cloth sachets in between bundles of manuscripts and incunabulum in the Saraswati Mahal Library , Tanjavur, *Saivite math* at Eroda for kicking out harmful insects.

Other indigenous methods suggested, of course, are rarely followed to keep peacock feathers, snake cast of slough for aromatic accretion which repel damaging insects, banana plantation resists termite beetle (*Anobium punctatum*) instant attack as done by the Government Museum, Mathura and the State Museum, Lucknow in Uttar Pradesh and tar in ditches of the museum building foundation.

The religious *Ramayana* and *Mahabharata* are traditionally wrapped in red mostly or even in yellow rough kero (ticking ) cotton cloth piece as microbial insect repellent and that practice is seen even to cover the earthen drinking water pot in the *jalachatra* (cold water distributing place in hot season to passers –by).

Indigenous methods of preservation are proven to be many times easy and less expensive and even effective than conventional chemical preservation as it ultimately causes fatal result to paper materials to the extent possible. A proverb echoing the idea runs thus-‘Prevention is better than cure’. Indigenous methods are widely recognized because of their versatility.

The ways to save the destruction of the archival records advocated as safe remedial measure are regular dusting the paper materials with a soft duster (towel) , keeping of silica-gel ( $SiO_2$ ) for dehumidification , naphthalene( $C_{10}H_8$ ) cakes in glass or porcelain bowl or cork opened para-dichlorobenzene ( $C_6H_4Cl_2$ ) bottle in book shelves for fumigation to control insects.

### **Palm –Leaf Manuscript**

Palm –leaf manuscript is made of either palmyra palm –leaf (*Borassus flabellifer* Linn.) or of *khara tala /sritala*, locally known as *teret talipot* palm (*Corypha umbraculifera* Linn. = *Corypha elata* Roxb.). The latter has bigger, broad and flexible leaf and is better for writing on its oily surface, while the other is thick, course and narrow leaf. The selected leaves are cut into required sizes according to need, dried in shadow, bundled and buried in marshy water or simply in plain water for 15-25 days for seasoning or boiled with crushed down *haldi* (Turmeric –*Curcuma longa* Linn.) as insecticide and, then dried in shadow. The processed leaves are stitched together with fine needle and thread to have a much broader surface for writing. Letters are incised with a pointed



iron stylus, its one terminal end is flattened fan-shaped for erasing out incorrect letters whenever deem it fit. Mostly charcoal powder or rarely lamp black soot is rubbed over the incised letters to make it legible to read.

Two stiff slightly broad seasoned hard wood board covers than the size of leaves are used to prevent the chance of breaking the edges of the leaves. The boards are called *pata*, which are made of *sal* (*Shorea robusta* Gaertn.) or *segun* (Teak- *Tectona grandis* Linn.) or *kanthal / panas* (Jackfruit- *Artocarpus interifolia* Linn. f.) or rarely *neem*, which acts insecticide or *ablus* (Black ebony – *Diospyros ebenum* Koen.) or *luha kath* (Iron wood – *Mesua ferrea*) or *toon / nandi brikha* (*Cedrela toona* Roxb.) . The *patas* are mostly decorated with paintings, rarely with carving, punched with holes in the centre for binding tightly, the leaves with a passing cord as customarily so that pages are not disordered. But the handmade paper manuscript covers have no holes as a preventive measure against tearing.

Before painting the upper exposed surface of *pata* is coated with lime solution or stretched fine cotton cloth fixed with wheat or *maida* flour paste mixed with pulverized *tunte* and then painting is done after drying. The lively painting even rimmed with sprinkling of gold or silver lines is covered with a gala (shellac) varnish for protection of the vibrant art, a process of 17<sup>th</sup> A.D.

*Pata's* sublime thick impasto if blurred off, the colours are fixed with 5% celluloid dissolved in 50% acetone and 50% amyl – acetone and apply this thin solution with a soft brush on insect inflict leaves. This solution makes a layers over the painting and binds the colour flaking. Whenever necessary that binding layer can be removed with acetone.

Application of camphor oil or olive oil (C<sub>17</sub> H<sub>35</sub> COOH) in rectified spirit or 5% citronella oil restores the flexibility of leaves to a certain extent.

If the palm –leaves are stucked together with each other in humid condition, the leaves are moistened lightly with water for 1-2 hours or backed in a steam vessel, the vapour of which moistens the leaves and then with a spatula passing it gently between the leaves will separate them. The separated out leaves are placed on blotting paper flatly to absorb the excess water, if any.

Separation of leaves is also done with water- bath mixed with glycerine for 30 minutes. Then cleaned the leaves with rectified spirit with brush.

Another process is wax-bath and the smeared wax from the leaves can be removed with acetone.

If the palm-leaves distorted press them under weight to make them flat.

Palm leaf manuscript should be wrapped in oil-paper for safe preserving.

### **Bhurja-patra**

*Bhurja-patra* (*Belula utilis* Linn.) is thin flexible sheet of its bark , which peels off, then dried slowly, oiled and polished with a flat stone piece for making suitable for easy writing.

Birch tree grows largely in Nepal, Kashmir, and north-western Himalayas and some as fossil tree in North Bengal, Darjeeling.

With time *Bhurja-patra* tends to weak and brittle mainly for high humidity. It stains easily but difficult to remove stains in bleaching even with mild reagent, like chloramines-T in alcohol.

To look into and to avert fungal attack periodic fumigation in thymol fumigation chamber is required.

To prevent breaking of edges birch bark manuscript is always keep between two slightly larger wooden covers than the sheets.

One birch-bark object is preserved in the Akshaya Kumar Maitreya Museum at North Bengal University at Raja Rammohanpur in Darjeeling.

### **Sancipat**

Like *Bhurja-patra* *sancipat* is made of *saci* or *agaru* or *aloe /aloevera* (*Aquilaria agallocha* rind , 9"-27" long, 3"-18" broad and 1 mm. thick, has a laborious process in its preparation including its seasoning , drying, rubbing with a piece of burnt brick , polishing by a flat piece of flat stone for dazzling and durability. Such *sacipat* was unfurled and prevailed in Sankaradeva and Madhabdeva times in the *satras* of Majuli Island and at Hailakandi, Cachar, karimganj in southern Assam from 16<sup>th</sup> A.D. to 18<sup>th</sup> A.D.

### **Tulapat**

The name itself suggests that the *tulapat* is a cotton paper prepared under the aegis of middle of the Ahom age for official orders, revenue grants, dispatches . But it was not long lasting.

### **Papyrus**

Papyrus was not used in India. Papyrus was the paper-reed (*Cyperus papyrus* Linn.) of Egypt and grown in the deltaic area of Nile. Longitudinal strips of its pith are laid parallel, slightly overlapping the adjacent strips and beaten with a light mallet and the natural sap oozed out acted as adhesive. Papyrus was prepared from 3000 B.C. to 9<sup>th</sup> A.D. Papyrus objects were also found in Egyptian and Sicily tombs.

### **Parchment**

The proteinous parchment is not found usually in India, mostly found in Asia Minor, Pergamum. It is prepared from young calf, sheep, goat, antelope. Calf thin parchment is known as vellum.

The skin of these animals are immersed wetting first in a solution of 5% slaked lime and 1% sodium sulphate (NaOH) for dehaired , defatted and to remove the blood vessels fully by scraping the inner side and outer sides of the skin with the sharp and blunt edges of a knife in stretching out the skin fully over a flat platform . Then rubbed it with a pumic stone piece.

Tanning, a finishing stage of skin is leather and that is done with chromium salt for rendering it impervious to water, but preserves its flexibility.

Dyed skin is non-putrescent and durable. Dired skin is brittle and hard. For softening and rendering flexibility of skin an application of castor oil, an lubricant is essential or by application of the British Museum Research Laboratory leather-dressing mixture, formula being-

Lenolin (anhydrous)	200gms
Cedar wood oil	30 c.c.
Bees Wax	15gms
Hexane	330 c.c.

This mixture is rubbed well on the surface of leather, but sparingly. After two days the surface should be cleaned with a brush or by soft antelope chamois leather and then polished. This dressing mixture is highly inflammable and no smoking or any use of an open flame is allowed. The room where it is used should be well ventilated.

In very dry atmosphere skin becomes horny. Fungus grows rapidly on skin above 70% R.H. and skin weakens. Fungal attack causes lose of dyed and painted skin.

Insect infestation and mould growth is protected by periodic fumigation with para-dichlorobenzene insecticide which evaporates at ordinary temperature and the formed gas is lethal to insects.

The raw hide is preserved with common salt (Sodium chloride (NaCl) against putrefaction and for preventing bacterial growth.

The flayed skin has three layers—

1. Epidermis- Outer layer, hard grained with hair.
2. Corium or dermis- Middle layer from which the parchment leather is made.
3. Subcutaneous- Inner layer containing flash and fat.

As parchment is hygroscopic it is damaged by fungi in humid condition and makes it embrittlement. Parchment is weathered by humidity.

A *Koran* is written on a soft thin skin of a *mayal* (python) snake, preserved in the Asutosh Museum of Indian Art, Calcutta University.

Manuscripts, archival materials, like, records, documents the age required for becoming antiquity is of 75 years old in India.

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## **BOOK REVIEW**

*The Moving Space: Women in Dance-* Urmimla Sarkar Munshi and Aishika Chakraborty (eds.); New Delhi: Primus Books, 2018; ISBN:978-93-86552-50-1 (Hardback); Price: Rs. 1395, US \$ 64.95.

The interesting and informative book 'The Moving Space: Women in Dance' edited by Professors Urmimla Sarkar Munshi and Aishika Chakraborty grew out of a conference organized by Dance Alliance India and School of Women's Studies, Jadavpur University and therefore naturally deals with dance issues, particularly in the context of women dancers of India.

The name 'The Moving Space' is significant as dance is one of the rare art forms that is at once temporal - as the movements are related to time - and spatial, as dance movements cover an area in space. But the book looks beyond the concept of movement in time and space of mere dance execution to a panoramic view of the spaces that dancers and dance has occupied through a vast range of historical time. At once, and still in many cases, looked down on as the art practised by those in the fringes of society - the devadasi, the tawaif, the transgender and the vamp - the art of dance has gradually emerged as a highly sophisticated and respected art form that is not only used for entertainment or a temple ritual, but one that positively contributes to the elevation of the mind and soul of its performers and beholders. This process has been a long and laborious one with positive contributions as well as sacrifices of many great women. This sustained as well as variegated journey of dance and dancers is highlighted from diverse angles by a number of contributors.

The book is divided into four parts that highlight the main issue from different angles. Part I titled 'Historicizing Spaces' traces the journey of Bharata Natyam from the devadasi background to the cultured milieu of educated dancers such as Rukmini Arundale (Uma Chakravarti); the background of Kathak with its association with the nayika and the Nautch girl, covering a wide geographical area from Lucknow to Calcutta and dealing with the divergent roles of the dancers in political and social life (Ratnabali Chatterjee); the journey of the dancer in history from the tawaif to the classical exponent and then on to the Bollywood dancers (Pallabi Chakravorty); and the trials and tribulations of the eunuchs and transgenders who practised dance (Arunima Banerjee).

Part II titled 'Framed in Spaces: Presence and Representation' covers three major angles. Urmimla Sarkar Munshi analyses how dancers are made to occupy different spaces in festivals, parades and tourist sites and how their art is politically and commercially utilized. Bishnupriya Dutt in her dialogue with Maya Rao explores how the idiom of dance can contribute to contemporary theatre. Priyanka Basu examines the diverse representations of dance in cinema.

Part III titled 'Choreographing the Space: Identity and Creativity' highlights the innovative contribution of eminent dancers, who though trained in classical and traditional forms, ventured to create their own choreographic space. Space here signifies both the actual dance delineations and also the niche carved out by the daring innovators. Aishika Chakraborty focuses primarily on the contribution of Dr. Manjusri Chaki-Sircar. Nirmala Sheshadri compares and contrasts the two dance forms Bharata Natyam and Butoh that have emerged from different countries but that have helped in the artistic awareness of the performers who have practised both. Sadanand Menon has traced the artistic journey of the innovative choreographer Chandralekha. Samik Bandyopadhyay describes how the art of dance is often utilized to carry political and social messages.

Part IV highlights how dance is a vehicle to bring about transformation in society and amongst individuals. Urmimla Sarkar Munshi highlights how Maya Rao uses dance (Kathakali) as a powerful tool to carry across messages in a dramatic production. In the last Chapter Urmimla Sarkar Munshi and Aishika Chakraborty recount their interactions with dancers who have used dance to empower, rehabilitate and for therapeutic purposes. The experiences and contributions of Sohini Chakraborty, Alokana Roy and Lubna Mariam are recounted.

The entire volume is extremely interesting and informative and positively contributes to dance studies, especially in the area of women practitioners. The different accounts of survival, struggle, empowerment, subjugation and subversion that women dancers have faced throughout history are analysed and depicted with understanding and sincerity. The volume makes a positive contribution in the field of both Dance Studies as well as Women's Studies. And it is fascinating how the concept of time and space has been expanded to encompass not only the delineation of the art form but the historical journey of the art and the artistes through troubles, tribulations, creativity and social pressure. The volume positively contributes to a further understanding of women dancers and their issues and should be read by scholars of dance and women's studies.

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## **BOOK REVIEW**

*Networked Anthropology, A Primer for Ethnographers*- S.G. Collins; M.S. Durrington; New York: Routledge. 2015; ISBN: 978-0-415-82175-9; P-171. Price Rs. 2683

Networked Anthropology is an essential book to considerate the relationship between the modern digital age and Applied Anthropology. In this book Collins and Durrington detail how anthropologists can make use of social media. The advancement of social media offers anthropologists exciting opportunities to outspread their research to communities in renewed methods, keeping the ethical snags into consideration. This book explores the cumulative assumption of varied media into anthropological research and teaching. How the advent of digitalization in anthropology can have constructive influences over the communities along with the negative impacts, where ethics will always play an imperative role. This book is for all, students of anthropology, faculty members, practitioners', etc. This book possesses a noble sum of propositions which will benefit Visual Anthropology in development.

This book starts by reflecting the relationship between anthropology and the networked world. We all know that we live in an age, where we are connected to each other in numerous ways. We live two lives, one is the online life, where we are connected to the world via social media, the Internet and another one is the offline life, where we have affinal and consanguineal relationships. By using this information and communication technologies (ICTs) we have reconfigured our lives. We have started to express our emotions via texts, videos, audios, and photographs, with our virtually manifested families, which deviates us from the real-life associates. But in contrast to the above undesirable impacts, we can use these social platforms for various betterments. In this modern age, we should use these online platforms to gain and share more knowledge about humans, but keeping the ethics in front.

Moving forward this book debates about the earlier usage of social media that was mainly publishing research, blogging notes, etc. But when in 2012, American Anthropological Association (AAA), accepted the Digital Anthropology Group (DANG), there was an ample increase in digital anthropology. Various social platforms like Tumbler, Facebook, and YouTube are nowadays playing a pivotal role in shearing. Thus accumulates the advantages of visibility and functionality.

Moving forward authors focused on that ethical dilemma, which always remained a hot topic for anthropological debates. Here the authors pronounced about the maintenance of that ethical aroma by the anthropological practitioners while dealing with the networked anthropology. While writing about the importance of shearing of our works, they called the sharing as a process of reciprocity.

The transition of visual anthropology to networked anthropology is the outcome of the extreme usage of multimedia devices for documenting the people and their cultures, by taking their photographs, videos, ethnographic films, etc. Using these Information and Communication Technologies (ICTs), which help us to connect different areas and literally, we are entering into the paradigm of a global village.

In the end, authors have discussed two case studies done by the networked anthropologists; both are from the area of "Sharp Leadenhall" of Baltimore, United States. In the first case study, these anthropologists detailed how they changed their mind from the ethnographic documentary to networked anthropology. Their research was the collaborative type of research with the partners from the said community and extended over a period of eight years. Here they focused on, how the networked anthropology provides

alternative formats, content and delivery mechanisms for the history and current issues facing Baltimore residents through collaboration with local residents in the production of research and media about their community and surrounding Baltimore region.

The second case study is about the HIV infected area of Baltimore, where one out of nine is infected by the HIV virus. Authors discussed the miserable environment, people were living in. These networked anthropologists took the challenge to document this chaotic event spread across multiple sites and involving hundreds of people. They helped the said community by sharing the data collected and provided awareness all over by social sites and web blogs. JACQUES (Joint AIDS Community Quest for Unique and Effective Treatment Strategies) was the institute formed with colleagues in 2003, through the work of a web editor/ social media coordinator. This helped the community in the uprising from this chaotic environment.

Overall this book imitates how the network anthropology started and is now touching the new altitudes and how the future of networked anthropology continues to reveal in front of our eyes with the addition of each knot, each post, and each video. Networked anthropology is gaining reputation day by day, by taking visual anthropology to the next level. Of course, we can use social sites not only for those weak ties but for the betterment of the society too.

This book predominantly discussed the constructive approach of the Information and Communication Technologies in the anthropological research, to uplift the field of visual anthropology further across its limits. The authors could have discussed the negative impacts of these ICTs also, to generalize the readers about the pros and cons. There should have been some case studies concerning ethical dilemmas, to provide a view, how to tackle them in real practical field.

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## **BOOK REVIEW**

Srijani Roy. 2019. *LIFE OF THE MIDDLECLASS AGED IN KOLKATA*. Kalpaz Publications: Delhi. 255 pages. Rs.850. ISBN: 978-93-5324-055-4.

The book under review by a young, promising sociologist is an important addition to the studies of the old and aged in the context of urban, city-based pattern of life. In author's own words, "The present study was developed to explore the life of the aged, both men and women, from amongst the urban middleclass, in the light of changing relations, which include family relations, kinship relations and neighbourhood relations." What we ultimately get is a systematic analysis of selected cases on the basis of their social and economic status, household and family structure, changing family relations and neighbourhood relations, participation in community and creative activities, their awareness towards political and other issues and so on. And the author has touched upon all the aspects, may not be exhaustively, but in a manner suggestive of her understanding of the issues involved.

But then some methodological and conceptual problems associated with the study cannot be avoided. Clearly, the focus was on exploring the 'relations'. The best way to study relations is probably to see them functional in their own specific context. Here the context is far from a compact one with a closely bounded structure. As a result, the relations function in diverse ways with diverse manifestations. Some are truly impersonal; some are discontinuous; some broken or truncated with occasional renewals. Mental communication, more than physical, plays a vital role in contextualising such relations. The book is an edited version of author's Ph.D. thesis based on 'fieldwork' in some blocks of Salt Lake, Kolkata. The place was within easy reach of the researcher, which had made her task of communicating with her 'respondents' easier. But the selection of her respondents seemed to be conditional in the sense that they had to represent their class character. They 'had higher education, had served in high government offices or business houses, had sound economic background, had their own houses or flats, had the size of their family rationalised.' As they were aware of the value of high education, they had brought up their children with utmost care, who after completion of their education became spatially mobile because of career compulsions. But how all these families with more or less common characteristics could come together and form a neighbourhood? It was unlikely that all of them were personally known to each other. To an extent, government housing policy also determines the composition of a neighbourhood. Its role could have been examined in some details just to show that indirectly government also promotes class consciousness.

We are made to understand that they represent the urban middleclass, which, in other words, means that the above features are generally applicable to "middleclass". The author, it seems, is in agreement with Sarah Lamb's (2007; 2009) definition of "middleclass", which, along with other characteristic features, gives emphasis on 'participating in consumption and employment within global markets'. Will it be wrong to say that in the present case this particular function was performed by their children on their behalf? They were the beneficiaries without direct participation. Roy might have a point in the sense that sons and daughters staying abroad were very much a part of their parental families, which they were. But in such cases, the way structural changes in the family lead to adjustments at the functional level may not follow the same line or direction. Does class consciousness and prestige or status of family go hand in hand? In this connection, I am tempted to refer to Basil Bernstein's (1971; 1973) definition of 'old' and 'new' middleclass. 'Old' in his case does not stand for old aged persons; it only signifies

a 'positional' type of middleclass who are responsible for generating the characteristic of the 'new' middleclass. The new middleclass is 'personalising', which signifies that the members are regulated by identities and meanings that are individually negotiated. Here the young generation may roughly be equated with the new middleclass and the old middleclass represented by their parents are only indirectly responsible for generating the new one. The latter are no longer in control of material production and the lack of it coupled with their own career options have shifted the new middleclass members abroad. As one possible way of looking at the problem, this may appear to be a modification of Bernstein's model and the author is under no compulsion to follow it.

She has, of course, made an attempt to provide a prototype of an explanatory model based on direct observations. Actually, she has tried to locate her study against two dominant theories of modernity and realised the futility of such an exercise because the lives of the elderly or any other group of people in India do not quite fit in the explanatory model derived out of such theories. When Max Weber (1925) makes a distinction between 'direct observational understanding' and 'explanatory understanding', his point is that the latter requires experimentation with multiple individuals. Other than number, 'multiple' may mean several other things and in the present study there was not much scope to examine the diverse manifestation of multiplicity at individual level - proximal and participatory, non-participatory and communicative and so on. Roy was, however, emphatic enough to specify at the beginning the primary objective of her study:

"My primary objective was to prepare a sociological account of the life of the aged based on their life history (autobiographical narrative) and lived experiences and changing social relations and interpret the dynamics of their life in the light of the relevant sociological theories."

At the end, the author claims that the present study could counter the "breakdown" or "fall" thesis on traditional values guiding family relations. In the process, a type of "resilience thesis" has been put forward on the basis of the present study. Her ultimate conclusion that 'the traditional values have not become redundant in the life of the urbanites in a middleclass context' deserves close attention. Whether revival of traditional values has anything to do with strengthening of class character, one is not very sure of. If 'resilience' means an ability to recover from a state of misfortune or adversity and if it directly applies to traditional values, what has actually worked behind the recovery or revival of such values in the present case? The question comes up because it implies pre-existence of a stage marked by loss or absence of such values. There is another side of it. To what extent the life of the old and aged is observable? Is it possible to take note of the incessant flow of activities and 'inter-involved doings' revolving around each and every person within a timeframe? The deepest roots of the life of the old are not all actions. Even silence has a meaning to them, where invisible others have their contributions. We sometimes collect data with a pre-conceived idea in mind or to test a theory. When the sociologist attempts to go beyond understanding functional relationships and uniformities ('patterns', according to the author), one can only arrive at a subjective understanding of the action or situation as it unfolds itself before the researcher. The author also could not avoid making some generalisations or impressionistic statements. One example may be given. She states,

"It is also possible that the women generally live longer and it is they who are more likely to be widowed, alone and without family care."

No supporting data have been provided. Moreover, it is also expected that in an urban situation involving an enlightened section of the population, age gap between husband and wife has considerably been narrowed down. But it may not go to the advantage of wives in all cases because they are equally exposed to strenuous life. In spite of some

of the inconsistencies, the author deserves credit simply because of the fact that she has put the stereotypic notion about the life of the elderly to serious test. Not only that, she has tried to contest what has so long been taken almost for granted. Her following observations may be a pointer:

“ My understanding of the life of the elderly living in old age homes helps deconstruct the widely perceived notion that the elderly are the victims of neglect and desertion by their children and that the larger kinships and social support system break down as the aged move into the homes.”

Quite a revelation indeed, but even then some questions may not be avoided. It has been stated that the home (old age home) boarders, though missing their homely comforts and luxury of family life, were satisfied with their life there. Apparently, it has nothing to do with revival of traditional values. They were in relation with their children and occasional visits to them provided them with some diversion or relaxation. Does the study of two sets of elderly, those staying at their own houses and those staying at old age homes, prove that no single unitary approach can be followed in the case of old and aged persons in a metropolis?

Lastly, one wonders whether presenting life histories of the old in a narrative style would have made more impact on readers' mind. Exploring or exposing the inner perceptive world of the old does not follow the proven track of reducing it to the level of time-bound observation. Such a world opens up bit by bit, passing through one moment to another. Success of an exercise of this dimension depends on how effectively and meticulously the pieces, standing for myriad experiences, are bound into one. One, however, understands that an experimentation of that magnitude is beyond the scope of the preset study.

Rajat Kanti Das

## OBITUARY



**A personal homage to an extraordinary teacher:  
Professor Lakshman Kumar Mahapatra  
(29.10.1929 to 01.06.2020)**

I woke up the morning of 1 June 2020 to the shocking news that Professor L.K.Mahapatra after a long illness peacefully passed away a few hours before – a devastating loss to me personally and to the entire fraternity of anthropologists in India and abroad. Initially I could not believe the news until my friend, Professor K.K.Basa, confirmed the sad news over telephone. Professor Mahapatra was my teacher, doctoral supervisor, senior colleague, mentor, well-wisher, and of course my boss for almost a decade. And therefore, our relationship was much more than a mere teacher-student relation. While trudging through the muddy imbroglio of a long and arduous academic trajectory, I was fortunate enough receiving his kind blessings and mentorship all through. His personality had a profound impact on me. It would not be an exaggeration that he was my savior at a time when I was completely confused, perplexed and directionless. He soothingly held my hand, lifted me from the bewilderment and placed me resolutely on a stable platform, and that's how I am here today. This was in 1976, when I graduated in Social Anthropology with a gold medal from Utkal University, but was naïve and under terrible confusion with regard to my career. That was the time, when Prof. Mahapatra cajoled, prodded, reprimanded, pampered, exasperated and loved me, all at the same time, and was instrumental in setting my career and life. The way he indoctrinated me into the discipline of Anthropology was also unique and worth emulating.

In early 1977, in order to imbue the spirit of ethnographic research in me, he asked me and Dr. Ramakanta Mishra (Rama Bhai has superannuated as the Deputy Director of the National Commission of Scheduled Tribes, Government of India) to accompany him to Belghar in Phulbani district (now Kandhmal district) from Bhubaneswar to initiate a project on the Kutia Kondh, one of the Particularly Vulnerable Tribal Groups (PVTG) of Odisha. Three of us began our week-long journey from Bhubaneswar by road with the driver, Moharana. He took both of us to several people who matter in our pursuit of research from the District Collector of Ganjam to the Kutia Kondh informants in Belghar. I vividly remember, for some reason, we were delayed to reach on the way the small town of

Gunupur around mid-night, when all the eateries were closed. Naturally we were exhausted and terribly famished after the day's road journey. He took us to an old palatial house in Gunupur in that night, unhesitatingly made his advocate-friend to wake up from his slumber at that odd hour and saw to it that we had a modest dinner and a shelter for the night, before he himself ate. Similarly, he convinced the Block Development Officer of Tumudibandha to exchange his official jeep with a 4-wheel drive enabled jeep, so that we could traverse about 18 KM of dangerous ghat road to reach the almost inaccessible Belghar those days. He had a mesmerizing quality of convincing people easily in getting his things done. He was a dear friend to people of all denominations. While in Belghar, he demonstrated us the art of anthropological fieldwork by spending about a week there, which had a lasting impact on me. In retrospect, I think, he was a visionary *par excellence*, for having discovered a "real me" at that time, when I did not have any inkling as to what I was like.

Professor Mahapatra was a person to emulate and follow – be it in academics or in real life situations. When I joined the Department of Anthropology as a young Lecturer in 1978, he was busy organizing the Post-Plenary Session of International Union of Anthropological and Ethnological Sciences (it was named as ICAES then). We were expecting about 250 delegates from India and abroad in the small and sleepy city of Bhubaneswar those days. As an excellent manager, he had distributed all the responsibilities among us and was busy overseeing. During that time, it so happened that he had to ask me to visit the printing press in the late evening to collect the brochures, to which I fiercely declined without realizing the urgency. I still remember, with a composed posture and a smiling face he said, "My dear Kamal, please remember, teaching is not a job with work and leisure; it is a profession that demands passion and commitment. A professional cannot have the pleasure of a leisure time". It was enough for me to run to the press in that dusky evening for necessary compliance. Even now these words reverberate in my ears for inspiration.

As a Research Supervisor, Professor Mahapatra was very quality conscious. He was looking at each doctoral project with great precision. In the late 1970s and early 1980s, the UGC was implementing a mid-career promotional scheme among the college teachers, namely "Faculty Improvement Programme" to complete their doctorate projects. Several senior anthropologists joined the Department with the hope of having a doctoral degree with the UGC sponsorship. Many were with Professor Mahapatra as their Supervisor and were awarded doctorates under his supervision. Professor Mahapatra was assiduously monitoring the quality of research of his scholars, from objective to methodology, and finally to analysis, and was never compromising with the quality of research. He was certainly a hard task-master, not with any ill-will or grudge, but to produce devout torch-bearers of anthropology; not for his own sake, but for the sake of the discipline. When I joined under him as a doctoral candidate, he directed me to work in Arunachal Pradesh (earlier it was called NEFA). Again, I was not very happy for the distance as well as non-exposure to the tribal situation in North East India. But he could convince me by saying that it would be a dream to be fulfilled for him. He narrated me how the region was a treasure trove for anthropological research and how regrettably he had to discontinue his own research in NEFA and research collaboration with Verrier Elwin for personal reasons. In retrospect, I realize, how noble was his intention, although it was tasting bitter for me at that point of time.

Brilliance and meticulousness were inherent in him. He was born in 1929 and had his early education in the then mufassil town of Nilgiri in Balasore district of Odisha. He matriculated from the MKC High School, Baripada in 1946 with a Second Rank in the whole State of Odisha. Then he moved to Ravenshaw College, Cuttack to complete his

Intermediate, and then to Calcutta University to obtain his B.A. (Hons) and M.A. in Anthropology in 1952. He completed his Ph.D. Magna-cum-Laude (meaning, with great academic distinction) from Hamburg University, Germany. I was told by his class fellows and seniors at Calcutta University that he was verily a “moving encyclopedia of Anthropology” of his times. Once he had allowed me to encroach into his private space, when he showed me his stunningly beautiful hand-writing in a diary, reminiscing his learning of German language in the 1950s.

Professor Mahapatra had a distinguishing teaching career. Those were the days, when academics was far from regionalism and parochialism. Teachers were invited from nooks and corners of the country, if they were worthy. This made Professor Mahapatra to teach Anthropology and Sociology at the Universities of Lucknow (U.P.), Meerut (U.P.), Gauhati (Assam), Karnataka (Karnataka) and Utkal (Odisha), besides working in research institutions at Ranchi (Jharkhand) and Bhubaneswar (Odisha). His teaching career spanned well over 35 years from 1954 till his superannuation in 1989. His most productive years were spent at the Department of Anthropology, Utkal University, where he had introduced new specializations like South-east Asia Area Studies, Population Anthropology and Development Anthropology, in addition to the usual three specializations in Socio-Cultural Anthropology, Biological Anthropology and Pre-historic Archaeology. Under his leadership, this Department was designated as a Department of Special Assistance (DSA) by the UGC in 1988, which has now the distinction of becoming a UGC Centre of Advanced Study in Anthropology. He was also the Founder-Director of the Population Research Centre and First Coordinator of Centre for Regional Studies at Utkal University.

Professor Mahapatra had laid his hands on academic administration as well. He was the Vice-Chancellor of Utkal and Sambalpur Universities in Odisha and was the Director as well as Chairman of the Nabakrushna Choudhury Centre for Development Studies at Bhubaneswar at different times. While at the NCDS, he brought in the disciplines of Economics, Anthropology and Sociology together for a holistic social science research. Although these tenures were of short duration, he had provided a robust leadership to these institutions and contributed to their holistic development. But a scholar in him did not make him a successful administrator. Every time he had to come back to teaching for he did not know how to compromise on genuine issues and how to use diplomacy in languages. These qualities of Professor Mahapatra were compounded with his most loquacious presentation of facts. He was a brave warrior in that sense with frank opinions, however unpalatable it might sound to others.

Honors and awards received by Professor Mahapatra were so numerous to list here. However, some of them include Swami Pranavananda Award (1993), R.P.Chanda Birth Centenary Memorial Medal (1994), R.P.Mohapatra Memorial Award (1996), Certificate of Honor for Outstanding Contribution to North East Indian Studies (1999), Gold Medal for Life-time Achievement in Anthropology (2004), Think Odisha Leadership Award (2011), etc.

I do not intend to mention here the list of his books numbering about 15 that are available in the sites of renowned book sellers. He had extensively written on a wide range of subjects, *viz.* social welfare, swidden cultivation, folklore, tribal development, resettlement and rehabilitation, cultural tradition, self-managed development, tribal peasantry, tribal transformation, and what not. His *magnum opus*, to me, was his paper on “Gods, Kings and Caste System in India”. He had brilliantly demonstrated in this paper the structural similarities between a Hindu temple, a royal palace and an intertwined network of caste relations in village India. His contribution to “Ritual Kinship” is an amazing portrayal of his deep ethnographic insight and ingenuity of analysis. His scholarship has reached its climax with the publication of his paper, “Tribal Polity and

Hindu Kingdom: Case Study of Early State Systems in Orissa, India”, which is a socio-historical analysis of the contribution of tribes and tribal cultures to the process of early state formation in India. His scholarship had radiated from South Asian Anthropology to the study of South Eastern island of Bali in Indonesia with a comparative note on “Folk Culture and Society in Orissa and Bali”. His seminal articles on Anthropology of Development include “Impoverishment Risks and Reconstruction of Livelihoods of the Dam-Displaced People, Orissa”, wherein he had improvised the IRR Model of the veteran anthropologist and development planner, Michael Cernea. His articles numbering about 180 catered to all tastes and shades of the disciplines of Anthropology, Sociology, Social Work, History and Environmental Study. In nutshell, his scholarship was beyond boundaries and was legitimately all-pervasive.

Professor Mahapatra had a wonderful sense of humor. As a young teacher in the Department, I always wanted to escape the most monotonous and tiresome staff meetings. Once I took the excuse that in another half an hour I had a class, and hence, I requested to spare me from the meeting. With a big smile, he replied, “It seems you did not study properly when you were a student”. Of course, finally he relented, but not before everyone present there had a hearty laugh.

Professor Mahapatra was a very gracious host with his late wife, Mrs Mahapatra. None of us had ever returned from his 16 Satyanagar residence without snacks and drinks. Snacks were most of times home-made and drinks seasonal. In summer, we get bellyful of either mango shakes or juicy extract of quince (*Aegle marmelous*) with sugar.

Now with the sad demise of Professor Mahapatra we lost an extraordinary teacher, a compassionate mentor, a brilliant scholar, a prolific writer, an astute critique, a methodical organizer, a jealous custodian of academic values, a loquacious scholar and a gracious host. His loss can never be compensated. May his soul rest in peace.

Prof. Kamal K. Misra  
ICSSR Senior Fellow &  
Former Vice-Chancellor,  
Utkal University of Culture,  
Bhubaneswar.

## COMMENTARY

### Corona virus pandemic and Areas of Our Concern

Rajat Kanti Das  
Editor, JIAS

*[The rapid spread of Corona virus has already caused an unprecedented devastation and dislocation in our life process. Those who are knowledgeable among us consider it to be one of the biggest challenges thrown by Nature to the humanity as a whole. As students of the Science of Man, we have our own 'concerns' and 'anxieties'. This note is prepared with the purpose of taking stock of the situation on a limited scale, based mainly on some of our actions and inactions, deeds and misdeeds, academic exercises and projection of blind faith or belief system. Our observations here are guided mostly by trends and happenings. We seek opinion from scholars on this subject.]*

Compared to some of the Western countries, the severity of Corona virus attack was felt by us a little late, which probably made us somewhat complacent and unconcerned. When the first international case was detected in Thailand, we hardly took any notice of it and devoted almost all of our time and attention to holding Delhi Assembly elections. Prime Minister Modi's trusted friend, the U.S.A. President Trump's historic visit to India kept us so preoccupied that we did not perceive any serious threat from the virus in India. Incidentally, President Trump's visit coincided with the Delhi riots and we had to give extra effort to divert his attention from those incidents by keeping him in good humour. Was it in our mind that the holy land that India was, there would be little chance for the virus to play havoc? Initially, some of our religious *gurus* made us believe that taking all types of animal food without any restraint made God angry and he wanted to teach us a lesson in the form of a deadly virus. The students of anthropology may recollect the association of the New Guinea tribe Fore with the 'Kuru' virus, the formation of which was attributed to the Fore custom of feeding their women and children with the slain enemy's brain matter, one type of cannibal practice. Persons belonging to the neighbouring parish were considered born enemies who were always on the lookout for the slightest opportunity to play magic on them that could spell disaster on their group. 'Kuru' exemplifies a case in which culture in the form of customary intake of human organic matter undermines the biological implications of it. As a virus, 'Kuru' had a very long incubation period and could not be killed in high temperatures in laboratory conditions. The last known case of 'Kuru' was said to be sometime in 2009. But, unlike Corona, it had a localised distribution remaining confined to the community members who indulged in such practices. In terms of severity it may be comparable with 'Sars' and HIV. Anthropologists who had worked with HIV virus mostly dealt with its social and economic consequences. What is, however, alarming at the moment is the concern of the recent researchers that in terms of severity Corona may surpass all other known viruses.

The more we know about Corona virus, the more we realise that it is probably unprecedented in many respects. Our late realisation about its severity made us react rather abruptly and without much of a prior planning. When the situation started changing rapidly much to our discomfiture, Prime Minister Modi almost sprang a surprise by announcing 'Lockdown' in a short notice. We have tried to see the Lockdown effects in the context of some known stereotypic constructs, some of which are listed below:

- (1) Rural-Urban divide
- (2) Rich-Poor divide
- (3) Old - Young and children



- (4) Political persons- Commoners
- (5) Medical Aid givers- Aid receivers
- (6). Hard core Religious persons- Liberals

The list could be extended further, but what draws our attention is that the virus has upset all calculations. It is difficult to set a definite pattern about its behaviour except saying that any form of congregation, more particularly religious congregation, may increase the likelihood of having more carriers and secondly, the older section of the population could be more vulnerable to Corona attack because of immunity problems. But then, more and more medical persons are getting affected. The virus has not spared security force personnel even. A large number of police personnel in Maharashtra have been affected by the virus; younger people and even children cannot remain safe. Of course, there is always a difference between virtual threat and real threat, which in this case is difficult to be maintained. Our threat perception has tried to identify special groups like “Millennials”, who were born between 1981 and 1996 and who were branded as the children of ‘baby boomers’, displaying a level of instability and therefore tend to be hit more by Covid-19. They were hit by 9/11 and this time also it may not be any different. One may very well dismiss it because there is a veiled political message behind it, but this at least gives us an idea about how our thought process works in this situation of crisis. The threat posed by religious congregation in rapidly spreading the virus has been recognised. The event of ‘Tablighi Jamat’ at Delhi’s Nizamuddin is a known case. As on 05-04-2020, almost thirty per cent of Corona affected persons in India were linked with Nizamuddin, spreading across 17 states of the country. Now we have almost lost count of Nizamuddin victims. But religion or religious affiliation often brings out the ugly face of the people creating much ill feeling between communities. The ultra-orthodox Israeli town of Bnei Brak was sealed off to avert any possible threat of spreading Corona virus from the surrounding Muslim population. In our case too hardening of attitude is no less visible among some sections. From a different consideration, we accuse the West of practising racism of some form, but we ourselves are not completely free from it. That was when the Corona virus had just got a foothold in India, a group of Manipuris in Hyderabad comprising mostly students, were prevented from entering into a mall where they had gone to purchase some essentials. As alleged by the victims, they were stopped from entering into the mall by the security persons on racial ground as they, with their Chinese like faces, might have a direct link with the disease. This could be the perception of those manning the mall, but this speaks of our racial bent of mind. The Chinese themselves were not free from it as it was reported that some African tenants were forced out of their houses in some Chinese big cities like Shanghai on their suspected link with the virus, which clearly demonstrated their racial bias towards the Africans. We have been told about the disproportionate occurrence of Corona disease among ethnic minorities in the U.S.A., as compared to the majority population. Are they victims of differential treatment? The case of George Floyd, a Black American and a Corona victim, who allegedly died for want of proper health care and the brutality imparted on him by the police official, may be an example. The only bright side of the episode is that it has evoked countrywide protests and violent demonstrations, something which President Trump probably could not possibly anticipate. The fact remains that differentiation still works and the rampaging Corona virus has laid bare our double dealing when our own interest gets involved. At the vital moment, our actions tend to be guided more by economic considerations from the perspective of consolidation of social and political gains even if such actions are morally untenable.

Casual though it may appear, our observation on tribals in specific areas gives an impression that they are less susceptible to Corona virus compared to many of the non-tribals of the region. Nagaland, Mizoram and Arunachal Pradesh with no or minimum

number of cases have engaged our attention. But to think that they are naturally equipped to fight the Covid-19 is too hazardous a conclusion to make at this stage. More prudent it would be to say that they succeeded to some extent in bringing down, if not stopping altogether, their contact with the outside people who were prospective carriers. Manipur, for example, had only two cases and they too were on the path to recovery, but once the floodgate was opened and those staying outside started returning to their own place in sizeable number, the number started swelling. Promulgating 'Inner line permit' may be a retrogressive step, but in a situation like the present one it has a merit of its own. It was reported that the indigenous Yanomamo tribe of Brazil Amazon resorted to protests once it was revealed that the minor Yanomamo boy staying with the non-indigenous population at a distance from their villages was affected with Corona virus. The non-indigenous population was directly accused of spreading Corona virus in the Yanomamo territory. The Government of Brazil issued a warning to the effect that the poorest communities of the country are increasingly threatened by the virus. It is, however, not known whether the Amazon tribes like Yanomamo were included in the list. The Government in any case has been accused of violating indigenous rights. Tribes are now in a situation when they will be required to face the virus as well as attempts by the government and government-backed Companies to seize their land. But the situation everywhere is not the same. According to the Indigenous Organization of Ecuador, an indigenous tribe of Ecuador had to relocate themselves to escape the wrath of Corona virus. The situation in our own country is also a pointer. Some of the tribals from Jharkhand, Orissa and western districts of West Bengal, who were working as migrant workers in other Indian states, mainly in south and west, got affected. Their plight is not much different from the migrant workers in general.

Migrant workers have become a big issue for us, which has already generated much heat, ill feelings, sharp differences of opinion and mistrust even at the family level. The migrants, who at times gave an impression that they were nobody's responsibility, had to undergo pains and sufferings of a dimension which can hardly be imagined. But for the untiring efforts of some voluntary organizations, recognised N.G.Os, Alumni Associations, philanthropic bodies, their sufferings would have increased manifold. Painful it is to record that migrants died walking when trains were not available and when 'Shramik trains' were introduced death has not left them altogether. With no work and no money to support them, their collective wish was to get back where they were before the outbreak. Ironically, 'before' is a word which holds little meaning to some of them as their experience after returning to their own place and to their own families suggests. They have incurred displeasure of their one time neighbours and their own family members in some cases were not quite prepared to receive them. Who is to be blamed? The heartbreaking picture of a minor child pulling up the cloth covering the dead body of her mother at Muzaffarpur railway station, a 23 yr. migrant worker returning 'home' by the Shramik special train, is self explanatory. Biscuits were thrown at migrant workers on their way back home by the railway staff in U.P. and we only take solace from the fact that the concerned persons were temporarily suspended from work. At another level, the outburst of Italian sentiment against treating Italy like a 'leper colony' after the Corona virus pandemic makes us somewhat uncomfortable.

Amidst all these, there is hardly any talk about biodiversity loss and its possible relation with the increase of pathogen transmission. A number of Corona stimulus programmes have been announced by the government, but there is no programme as such drawn exclusively with ecology or restoring environmental sustainability and climate change. May be to take up any such long term programme is beyond our means at this stage and since there is no direct economic benefit that could be derived from this, we may wait and ponder. But open display of economic wealth which amounts to wastage

makes us think whether our intention correctly reflects our action. A liquor baron might be within his rights to book an Air India Airbus to take his daughter and few of her associates from Bhopal to Delhi. Still, when our objective is to mobilise resources to accord benefits to maximum number of needy people, such actions are bound to give a wrong signal. Lockdown has both 'anxiety' and 'relief' components. So far anxiety and uncertainty have overshadowed the relief side of it. If there is any welcome relief provided by Lockdown, it is making our environment less polluted than it was before, the importance of which cannot be undermined. Thomas Friedman, the well known Foreign Affairs Columnist of The New York Times, in an interview given to the CNN on April 28, 2020, spoke about 'loose' and 'tight' cultures. According to him, 'tight' cultures would be in a better position to take on the Corona virus. If the so-called 'tight' culture stands for a cohesive structure, the members of which are tied to one another in a spirit of community living, tribes or tribe like formations may hold a better prospect. Only such people had the experience of treating Nature as a friend and who does not know that Nature as a foe is quite a different proposition than Nature as a friend. Whether tribes of today still nurture a friendly attitude towards Nature is a different question.

It is said that life after Corona will be different. Greater participation of women in almost all types of activities will pave the way for recognition of their rights on equal terms. With women's rights at the forefront, we may take a step towards building a society based essentially on the principle of equality. Change in the gender environment may also affect other sections of the society in course of time. We are heading towards a world without strangers and it is mainly because Corona has brought us closer to another within a knowledgeable distance. Let us hope to make the most out of it, even though we have been warned that life after Corona would not be the same in terms of giving free expression to likings, wishes and idiosyncratic desires.

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Contributions are invited for Journal of the Indian Anthropological Society. Articles should be between 5000-7000 words. Scientific papers, review articles and brief communications written in clear, concise and correct English will be considered for publication. Submission of an article will be taken to imply that the article is not currently being considered for publication by any other journal. Acceptance of articles is based on content of original data or interpretation of the material. The editors reserve the right to edit manuscripts to ensure conciseness, clarity and stylistic consistency.

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(i) title page with full title and a short title to use as running head. For the purpose of blind referencing, full name of each author with current affiliation and full address for correspondence/phone/e-mail details should be furnished on a separate sheet.

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### **Book**

#### *Single author*

Sarana, Gopal 2008. Explorations in Method and Theory in Anthropology. Jaipur, Rawat Publications.

#### *Plural authors*

Behura, N.K. and Nilakantha Panigrahi 2006. Tribals and the Indian Constitution. Jaipur, Rawat Publications.

For four or more authors, list all of the authors in the reference list; in the text, list only the surname of the first author, followed by et al. ("and others"):

### **Editor, translator, or compiler instead of author**

Lattimore, Richmond [Translator] 1951. The Iliad of Homer. Chicago, University of Chicago Press.

Danda, Ajit K. and Rajat K. Das (eds.) 2012. Alternative Voices of Anthropology. Kolkata, The Indian Anthropological Society.

### **Editor, translator, or compiler in addition to author**

Barthes, Roland 2009. Mythologies. [Selected and Translated by Annette Lavers.] London, Vintage Books.

Radhakrishnana, S. [Translator and notes] 1970. The Bhagavadgita. Bombay, Blackie & Sons.

### **Chapter or other part of a book**

Choi, Hyup 2012. Korean Anthropology in Historical Perspective. In: Alternative Voices of Anthropology, ed. by Ajit K. Danda and Rajat K. Das, pp. 117-135. Kolkata, The Indian Anthropological Society.

### **Books in vernacular language**

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