

Environment, Ecology and Culture Paradigms Case of Ladakhi Tribe

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One of the major objectives of social/cultural anthropological studies has been the description, analysis, interpretation and understanding of culture/s temporally and spatially. Cultures are, and have always been, at different stages of evolution and development. As such are reported cultural variations in time and space. But then, in certain sense cultural similarities are also reported. Many cultural traits, practices and institutions are, in many situations, similar though the societies bearing them are widely scattered.

To study cultures at the levels of their uniqueness, diversities and commonalities the cultural anthropologists have mapped many ideas, approaches and methodologies. In the later half of last century, when anthropology, as a distinct academic discipline, was in making, the then anthropologists proposed for 'evolutionism', stressing thereby mainly on the tracing of evolution of culture traits and institutions. And chief proponents of this theory/approach included Tylor, Morgan, Spencer etc. Close on heels came the 'historical particularism' of Franz Boas whose reductionism hovered over historical origins and background of cultural traits and institutions. The diffusionists (notably Smith, Perry, Schmidt and Graebner) proposed the methodology of studying cultural traits in terms of their diffusion from one or more culture centres. The functionalists and structure functionalists, specially Bronislaw Malinowski and Radcliffe - Brown demanded for cultural studies and explanations in contemporary context thereby giving jolt to earlier ideas and theories. Strong empiricism and intensive long field work traditions, in the study of culture and social structure, were then established in anthropological studies. They proposed for cultural and social structural studies in terms of their 'constancies' and 'consistency' and at the level of 'here and now'. Abstractionism and model-building, as proposed in 'French

Structuralism' (with Claude Levi-Strauss as its originator) gave altogether a new direction to social anthropological studies. Simultaneously came up American and other cognitivists, emicists and symbolists (including among others David Schneider, Stephen Tyler, Marry Douglas, Clifford Geertz etc.) who tried to, broadly speaking, look at culture as a system of meanings and perceptions and suggested for cultural explanations at the level of insiders perspective and mental framework. Ethnomethodological approach was, then, believed to provide logical explanations of actors of their own actions.

The concept of culture, in anthropological parlance, itself remained fluid. On this count there have been disagreements of various forms. Alfred Kroeber and Clyde Kluckhohn shifted through one hundred and sixty four definitions of culture and found, according to Gerald Weiss, no two of them exactly alike. However, in terms of broad consensus and at a later stage culture could be seen in its inclusive concept housing thereby sociological, ideological and technological/economic components. Polemical versions do remain while treating culture as an abstract or reality or both.

Among others, any cultural milieu can be studied, analysed and interpreted in three perspectives - historicity, acculturation and ecology. Explanations regarding origin, sustenance, uniformities and variations of culture constituents can be broadly sought through these three frameworks. All the three, independently as well as in combination, are of significance in the description, understanding and explanation of cultural institutions, their origin, continuity and change. But with the rise of neo-evolutionism, and after the works of Jullian Steward, the place of ecology in the explanation of cultural phenomena assumed an important and alarming form. And there comes the environment in the context of cul-

tural anthropological studies. Slightly coming close to Marxian framework, the concept of energy in the evolution of culture, as brought out by Leslie White, propounded that the culture progresses when the amount of energy harnessed per capita is increased or when the efficiency of technological means of putting this energy to work is enhanced. But then Jullian Steward did not support White's excessive focus on techno-economic dimension in the explanation of ideological and sociological components of culture. He rather proposed that environment is a crucial factor in the issue under reference. With such an assertion, he came out with his concept of 'cultural ecology' which closely connects cultural matrix to environment.

We know that in the academic world of anthropology, the debate regarding culture - environment relationship is going on for decades. Regarding human societies and their cultural analysis ideas have travelled from anthropo-geography to 'environmental determinism' to 'environmental possibilism'; the latter being held high in the concept of cultural ecology. Cultural ecology and culture - environment paradigm looked for environmentally based constraining or limiting factors to human adventures and the suitable adaptation thereof. Here environment is not taken as prime mover or determinist. However, cultural ecology, as one of the dominant approaches in the analysis of culture came into sharp focus around 1955 when Jullian Steward outlined its detailed methodology.

Covered under the broad category of ecological anthropology, cultural ecology subscribes to the view that culture and environment are intimately connected. And that is the reason why many cultural anthropologists have defined culture as an adaptive mechanism. The society, its culture and environment are even in dynamic relationship and adapt to mutual challenges thereby reshaping and restructuring the existing elements. Within such an orbit, Marshall Sahlins (1969) remarks that cultures are human adaptations. Cultures assign relevance to external environmental conditions. The element of adaptation also finds a prominent place in cultural ecology, and

such a relationship explains of cultural variations as the culture - environment interaction itself involves diversities. Adaptations to environment have consequences for other areas of life (Honigsmann, 1976). The development of culture traits is affected by environment. Cultural ecology links, many a times, emic phenomena with the etic conditions of nature, and this is done in causal terms, as part of adaptation and not in terms of geographical determinism. And the process of adaptation is taken dynamic because the organism and the environment themselves do not remain constant. In other words environmental-cultural relationship and its analysis form special arena of cultural ecological studies. The adaptation of humans to ecological setting is usually reflected through socio-cultural institutions which are designed accordingly. Many a times even the origin, development and change of such institutions are attributed to environmental conditions (Anderson, 1973). Cultural materialism of Marvin Harris (1968) makes the area more broad-based encompassing technology, economy etc.

Likewise ideas also varied in conceiving ecosystem. Some, say Ellen (1982), included in it general ecology taking behaviour and environment together. Vadya and Rappaport proposed for biological ecology in the orbit of ecological studies, stressing thereby a single science of ecology. The ethnoscientists talked of ethnoecology. Other (Say Fosbery, 1963) included matter and energy while conceiving ecosystem; and there have been still others who suggested for the inclusion of 'organic and inorganic, biome and habitat' in it (Tanley, 1946).

In spite of diverse arguments regarding ecosystem and cultural ecology, the cultural ecological approach of understanding cultural institutions, social groups, behaviourism and relationship *vis-a-vis* environments has constantly grown over the years. Jullian Steward conceived cultural ecology involving in it: (1) The interrelationship between environment and exploitative or productive technology (2) the interrelationship between behaviour patterns and exploitative technology, and (3) the extent to which those behaviour patterns af-

fect other sectors of culture" (1955: 40-41). Here the focus remained on interactional analysis of environmental - cultural nexus highlighting adaptation as an important dimension. The rise of certain kind of cultural traits, institutions and behaviour has also been attributed, by some anthropologists, to adaptive strategy to the environment. Among others, Marshall Sahlins (1969) and James Anderson (1973) have presented more illuminating explanations in this regard. Sahlins (1969: 367-368) asserts, "the truism that cultures are ways of life, taken in a new light, is the ground premise-cultures are human adaptations. Culture, as a design for society's continuity, stipulates its environments."

The cultural ecologists also search for cultural variations in the adaptation of societies to specific environments. Among some others, Honigsmann makes a very decisive explanation in this regard, making the formulation of cultural ecology further broadbased. He asserts, "for cultural, ecologists, the relationship between culture and environment is one of mutual interaction: as society's mode of ordering natural features, whether cognitively or through physical means, frequently leads to changes in the milieu, thereby confronting the society with new challenges to adaptation" (1976: 287). One of the most elaborate account of the dimensions of cultural ecology has been provided by James Anderson (1973), though part of his explanations are common with Honigsmann (1976), Marshall Sahlins (1969) and Jullian Steward (1955), who have also treated elements of culture having bearing in environment. This is reflected through 'adaptation'. The six point paradigm of Anderson encompasses the detailed characteristics of cultural ecological approach.

The social-cultural institutions devised in tune with the environmental adaptation do not, in many cases, stand exclusively on their own. They need support from certain other corners to their sustenance as well as persistence. This fact has not been adequately highlighted by the majority of cultural ecologists and cultural materialists. We would argue that unless this aspect is thoroughly researched, the interpretation of social-cultural phenom-

ena may remain short of being forceful. Environmental paradigm alone may not serve as panacea to get at the emic as well as etic perspectives of social groups as well as the cultural institutions and practices that the people follow.

Ladakh is the most north-western part of India falling in the state of Jammu and Kashmir. Earlier boundaries of Ladakh district included Leh, Kargil and Janskar (Padam) Tehsils. Lately, however, Kargil has been carved out as a separate district. Over the years various ethnic groups have blended in Ladakh. The Dards and the Mons, representing Aryan descent, mixed up with the people of Mongolian origin. Now the Ladakhis, inclusive of Chanspas (inhabitants of Chang Thang area) represent Aryan-Mongoloian mixture. The Mons, Bedas and Dards represent Aryan element. But because of centuries old admixture, the Mons and Bedas do not seem to be conspicuously different from the Ladakhis. The Dards, however, still seem to be racially different. The Dards who adopted Buddhist faith were termed Drogpa or Brogpa. Among the earliest inhabitants of Ladakh are included the Mons and the Dards.

The word Ladakhi does not refer to every inhabitant of Ladakh. It does specify a particular ethnic group. The synonyms to Ladakhi, who have of late been declared a Scheduled tribe, are Bhot, Bod, Bodh, Botpa, Bhautta or Bota. In Ladakh, the Ladakhis are numerically dominant and are all Buddhists. But then there are hardly exclusive Ladakhi villages; with the Ladakhis are living the Gara, Mon, Beda, Balti and Argon. The Ladakhis occupy the highest rung of social hierarchy under the category of Mangric. They are predominantly agriculturists and animal husbandry men. Dolba is the next lower category in which are included the Gara, Mon and Beda. The Garas, practising blacksmithy, are next in position to the Ladakhis. They are followed by the Mon and Beda respectively (The Argons and the Baltis follow a different social scale for their being Muslims).

Ladakh is characterized in different ways including Maryal or red-land, Kha-Chan-pa (snowland), Ma-lo-pho or land of Lamas

(Monks), monasteries, yaks and devil dancers. Barring a few fertile tracts along the river banks, Ladakh gives a barren and desolated look under the towering hills. Amidst the naked and bleak mountains one comes across a few snow-capped peaks. Human habitations are reported from 9,000 to about 15,000 feet above sea level. Problems caused by freezing cold and frowning weather are many. One suffers from breathing difficulty at higher altitudes where ultra-violet rays are fiercely active. Dehydration is caused by dryness. Prolonged exposure to sun-rays causes cracks in the skin. Soil erosion is caused by frost, high speed winds, dryness and melting of snow. The snow on the lofty peaks and snow avalanches on the high passes also pose difficulty. Extreme scarcity of vegetation is attributed to very meagre rainfall which does not exceed, on an average, three inches a year. Indus and its principal tributaries of Dras, Zaskar, Shyok and Shigar flow in certain parts of Ladakh. Forming one of the most elevated areas of the world, Ladakh is characterized by stony hill roads or bridle paths. Of late, however, some tar roads have also been built. Many of the rocky points and projections are owned by the monasteries which dominate the villages and the valleys down below. The remoteness and forbidding climate kept Ladakh isolated, except for some traders, for centuries. Except in summer, which is of a comparatively short duration, icy winds sweep Ladakh. The winter is rather long. The climate is rigorous and extremely dry, the dryness increases with altitude. As the winds carrying moisture are stopped by the Himalayan range, the region remains mostly dry. Jorila is the chief barrier to such winds.

The Ladakhi, as the Bhoti inhabitants of Ladakh are referred to, chiefly inhabit in Leh district and Zaskar division of Kargil district. Their life and culture, by and large, present an imposing picture of human adaptation to the external environmental conditions. At times it appears that some of their institutions and practices are conditioned by the environment which is so difficult and imposing in the heights of Ladakh. This high altitude desert, with freezing cold, is largely devoid of vege-

tation; except in case of valleys where scanty growth of vegetation is reported. The oxygen content in the air is very low. The analysis of social-cultural organisation, in this paper, chiefly derives strength from field work in four villages ranging on the heights from 11,000 to 14,000 feet above sea level. The villages in Ladakh are very widely scattered and the density of population is extremely low—perhaps the lowest of all the districts of the country. The Ladakhis face the most difficult environmental condition in terms of their economic existence. Their religious attributes, social organisation and the economic and social control systems bear a strong relationship, in terms of adaptation, to the challenging environmental conditions marking humankind at such high altitudes.

We would take off from the analysis of Phasphun, a social group characterizing Ladakhi social organisation and not necessarily based on descent and kinship ties. Under the hard and difficult environmental conditions of Ladakh, the interdependence and cooperation among families are essentially required and form prerequisite for smooth living. Hostile environmental conditions can make the isolated living miserable and hamper perpetuation. Usually there are two ways which ensure close cooperation - one afforded by the people of common descent group and the other among those who are connected through marital alliance. Families so connected depend on one another in usual course, as also in the event of emergency. But in case of Ladakh such families are not always found living in near vicinity. Many a times the settlements are far widely scattered, depending upon the availability of cultivable land and pasturage facilities. People have also been moving out with flocks of animals as per the mobility requirement in demand of weather conditions. So, the inhabitants, at some stage, thought of devising close-knit group of families in near vicinity to help one another. The Phasphun social group is an outcome of such a background. It consists of a few families who have to render help among themselves on various festive as well as sad occasions. This group is always of a manageable size and families are free to join or leave

a Phasphun as per their convenience. The group members are not governed by kinship obligation but their commitment for rendering help and cooperation is ensured by a common binding force provided by the Ladakhi religion. The unity and commitment of help among Phasphun families are ensured under the shadow of a common god which they all recognise and worship. The monasteries, at times, have their own role in the identification and allotment of gods to various Phasphuns. In other words, this wider group, beyond family is sustained by a religious binding force. All families of the Phasphun worship a common *La* (god) on the occasion of *Losar* (The Ladakhi New Year day). The common god keeps them united. All families of Phasphun know the name and location of their common god. The image of such a god is preferably retained in the monastery premises. In some cases it may also be retained in the *Chhor-Kang* (family worship room) of some family, or at times even on some hillock. The families cannot backout from their reciprocity obligation under the fear of god, and hence together overcome the difficulties posed by the hazards of hard natural conditions.

In Ladakhi social organisation, the origin and perpetuation of institution of fraternal polyandry could be attributed chiefly to economic constraints originating from difficult and harsh environmental conditions. People could not ensure subsistence and survival of large population because of limited and meagre agriculture produce. Under the existing climatic conditions of Ladakh there is only one, and that too short, agriculture season in an year. In major part of the year the inhabitants remain under minus zero degree temperature and when nothing could be grown. Further, because of high hills and undulating terrain and topography, the cultivable land is limited and confined to a few valleys. In the event of poorest and scanty rainfall the Ladakhi farmers chiefly depend, for irrigation, on the water available from melting of snow on high mountain peaks. Over and above are the primitive agriculture tools and technology that people have devised as part of their adaptation to local environmental conditions. Animal

husbandry, by and large, is a subsidiary occupation, and for this they migrate from place to place, at different altitudes, in search of pasture lands and as guided by the weather conditions. During summer months they move to high altitudes where grass patches then appear. When other moved with the herds of goat, sheep, Zo, Zomo etc., one brother was left behind to look after the wife in polyandrous union. With the fall of winter the herders come down to lower altitude where grass for grazing would still be available. The hard economic life could not support large population under scarce resource. One of the ways of curtailing the rise of population, then, could be the introduction of polyandrous system of marriage wherein one wife is shared by two or three brothers. In the event of monogamous marriages there could be fast population rise. The custom of fraternal polyandry also suited to the requirement of looking after the common wife when other brothers have to leave the house with the herds of cattle in still higher altitude areas. In order to promote and sustain the polyandrous system even the *Gyalpo* (King) and *Kulhon* (Prime Minister) patronised it by according a high positive value. The survival and continuance of the custom were further assured through the male primogeniture form of inheritance which the Ladakhi society adopted and kept up. Since the eldest brother has been inheriting the property, including land, the other brothers were left with no option but to join the common wedlock with him. Considering the hard environmental condition even the religion provided a strong support and protection to this institution of polyandry, which helped contain population, by providing a mechanism to absorb surplus unmarried girls in the fold of monastic organisation. Such females were persuaded to dedicate themselves into the service of religion and they took a vow of celibacy in their life. Such nuns (commonly called as *Chomos*), devoted to the religious pursuits, learning and preaching, and in that capacity did not create any social problem in society, which could otherwise arise in the event of so many females remaining unmarried for reason of polyandry. Even the formation of monks

(the Lamas) indirectly helped curb down the population rise as they also devoted to religious life, being attached permanently with Gompas (the monasteries). However, in order to ensure that the brothers join a common wedlock, a brother of the one, who is actually getting married, was sent, as a customary practice, to the bride's house to fetch her to the bridegrooms place. This practice guaranteed the brother's access, as the additional husband, to the lady whom he procured for his brother in whose name the marriage is formally being organised. All the above social, economic and religious arrangements, made to survive under difficult environmental conditions, propose for joint living of the brothers surviving on the joint economic resource. Even otherwise common wedlock kept them united. Various dimensions put together grow as a system.

Since the sixties of the current century some new economic channels have been opened in Ladakh and its society. This is largely because of fast expanding communication network and the consequent contact and interaction with the outsiders who cared to develop Ladakhi economic life. Innovations of this kind gradually eased the situation when a Ladakhi had to look for his existence only on the inherited meagre resource which could not sustain the large population. The alternative economies (labour, employment, internal trade etc.) provided after the opening of the areas to outsiders, led to the corresponding changes in other connected areas of Ladakhi life and culture. The gradual economic betterment led people to switch over to monogamous form of marriage; they can now economically afford to maintain separate wife and the children thereof. However, polyandry continues though at a much lesser scale than what it was reported earlier when new economic means were not available. The hold of monasteries, more so on economic life of a Ladakhi, has also undergone fast change. The institution of nunnery, specially of the kind when nuns lived in the monastery, has drastically disappeared. However, the formation of nuns continues, though they largely stay in their respective homes, thereby observing cel-

ibacy and devoting to religious life. The male primogeniture system of inheritance has also been under attack in the face of changing conditions when polyandry is no longer the pressing requirement of the local ecological nexus. Simultaneously, there can be observed a growing lack of commitment to *Gompa* (monastery) obligations. In Ladakhi social organisation there is now a growing trend from *Chomo* (nun) to *Pomo* (married women). Devotion to religious pursuits, like respecting *Mane*, *Chorten* (the religious structure) and rotating of the fixed prayerwheel (which is believed to bring religious merit), is reported at a lesser magnitude.

Like fraternal polyandry and Phasphun social grouping, one of the life cycle events has its close relationship with the nature. This is regarding disposal of the dead. In the absence of acute scarcity of fuelwood in Ladakh, the customarily prescribed procedure of disposing the dead body involved an element of adaptation with the environmental conditions. Traditionally the Ladakhis have been practising two methods of treating a dead body. According to one they cut the dead body into pieces and throw the same either on the hill tops, covered by snow, or in the running water of Indus and its tributaries, if it is summer season. It may be noted that even the Indus water gets frozen in Ladakh during winter months. The other method is that of cremation. But the cremation is done in a particular style to adapt to fuelwood shortage. The legs of the dead person are twisted to the extent that the body assumes a sitting posture. The dead body, in this posture, is then tied with ropes and is inserted in a round hole made in the upper portion of a square stoney platform. This platform has an opening underneath from where the Ladakhis insert the fuel to burn; the dead body fitted in the hole. This method is resorted to by the Ladakhis to save the wastage of flames which could otherwise happen if the body was not placed in this kind of structure. The fast winds, that blow in Ladakh, would disturb the flames from hitting at the target. And such a condition would require more fuel. Under the growing new avenues of fuel availability, the above procedure of dis-

posal of dead is, in a few cases, getting replaced by the procedure of normal cremation which many of the Ladakhis have otherwise seen in the event of deaths of non-Ladakhis serving in the region. The firewood is, still a rare commodity in Ladakh which has largely enthused continuity of traditional practice.

In the high altitude desert of Ladakh the water scarcity remains acute. And as such any source of water is carefully preserved for drinking as well as for irrigation. For extremely low rainfall, dryness and extreme winter, when the river water gets frozen, the Ladakhis need to conserve and preserve water. Even the life, say fish, within the water source is fully protected. For instance the Ladakhis never kill and eat fish. Further, at the ideational level the Ladakhis have imposed a number of taboos in respect of sources of water. For instance, according to a status of purity to water channels, people are prohibited to cross them when they are in the state of pollution. After the birth of a child, as also in the event of a death, the spouses are forbidden to cross water channels for defined number of days. This is to remind them of the importance of water. Any breach of taboo is supernaturally fearing to the people. The religious men again come into the picture to take care of such ecosystem-based problems. They have defined certain gods responsible for water resource and have even prescribed for their appeasement. On the prescription of religious persons people well identify gods and spirits of water springs, snow, channels etc. They also express that the water source would dry up, causing damage to human life and crops, if these supernaturals get angry. Among the prominent gods connected to water are Lhu, Magzer and Sadak. They are appeased through Chharbip which ensures more water and snow. Through melting of snow the Ladakhis get water for irrigation. People believe that the water supply would be reduced if Chharbip is not performed. The reference to such supernaturals has come in the ideological framework of the people. This is all the more observed to overcome the challenges of nature and subsequent smooth survival of human society and the livestock.

The empiricism drawn in the body of this paper makes it evident that in the Ladakhi culture and social structure, the fixity to and persistence of traditions are still strong in comparison to elements of change. A strong reason in support of such trend lies in imposing environmental condition and the consequent ecological balance. The centuries old interconnectedness of environment, humans, economy, religion and social organisation has not ceased to exist to any radical extent. However, the rise of certain new provisions in the natural and social environmental niches of Ladakh, as introduced by the wider network of communication (roads and transport), development agencies, deployment of military and para-military forces, tourists etc., have influenced the thinking, perception, outlook, world-view and attitude of only a small section of the Ladakhis. In certain fields, say fraternal polyandry, there is a fast-growing instance of change and readjustment. However, in most other spheres the first preference of majority goes in favour of what has evolved well in tune with the local environmental conditions and human adaptations thereof.

The analysis presented in this paper supports that certain social and cultural institutions and practices are chiefly an outcome of adaptation strategy of humans in the ecosystem. And the diverse perspectives of adaptation are further reflected while interpreting their continuance, modification and decline keeping painty with fluctuations, for one reason or the other, in ecosystem.

Further, at the level of analytical interpretations of Phasphun, fraternal polyandry and the ritual of cremation, one immediate assertion can be that environment alone is not the prime mover of social organisation and ideology of the people. At the same time no single element of environment has one-to-one relationship with a component of social structure or culture.

The complexity of relationship is reported more prominently. Under the circumstances the situation explains that natural features sound limiting human adventures rather than appearance of environment as a determining force.

The complexity of relationship, as referred to in the above paragraph, further suggests, methodologically, to adopt the approach of 'ecological, complex in the probing and analysis of man-culture-nature relationship. In this context the analysis and interpretations of Ladakhi society support the theoretic perspective as envisaged in contemporary sociology by Duncan and Schnore. Because of mounting closeness at the level of perspective in the study of Ladakhis and that of Duncan and Schnore, it would not be out of context to quote them. "Ecology deals with society as the functional organisation of a population in the process of achieving and maintaining an adaptation to its environment. Their view of social organisation as the collective adaptation of a population to its environment avoids the reductionism of behavioural concepts of some culture theorists. Duncan identifies population, organisation, environment and technology as four categories of variables that constitute the ecological complex. These four sets of variables are in reciprocal relationship. Whether it is fruitful to regard this complex as a system with equilibrium maintaining properties is a moot point of ecological theory..... It may be possible, however, to derive significant hypothesis from the assumption that the ecological complex constitutes an equilibrium-seeking system whose path of change results from this tendency combined with dislocating forces impinging upon one or another point in the system" (Duncan and Schnore, 1959:135 and Duncan, 1959: 680, 682).

Yet another important theoretical paradigm wherein fits the Ladakhi situation pertains to system ecology. This applies more to the polyandrous system and the supporting perspective thereof. However, the changing dimension of institution of polyandry may not prove befitting equilibrium in system ecological framework. This can be well accommodated in the event of reciprocity in nature-culture relationship even in the context of change in one or both. The static nature of the system at the level of man-environment-culture relationship, culminating into system ecology, was initially raised as a point of criticism to the approach of system ecology as envisaged

by Clifford Geertz, and later taken up for their studies by Lee and Rappaport. It may be mentioned at this juncture that systems approach in ecological anthropology has been criticized for over-emphasis on self-regulation processes and for neglecting disruptive processes. Concept of system ecology was developed and used by Clifford Geertz and he conceptualized ecosystem as a constant interplay between culture, biology and environment. It proposes for system analysis including properties of system structure and system equilibrium. Against earlier studies it avoids point-to-point relationship between variables of culture and nature. And this is exactly revealed in our study of Ladakhi situation on this front where systemic approach focused upon a complex network of mutual causality (as in polyandry, Phasphun and death rituals) than upon reciprocal causality between two objects or processes. Such a provision in ecological anthropology supports holistic studies at the level of cultural ecology.

The analysis and interpretation of Ladakhi culture at the level of systems ecology, as part of cultural ecology, sounds as a landmark in comparison to studies based on one-to-one relationship suggested prior to systems ecology. Religion, polity, inheritance pattern, parameter of status put together explain the rise and perpetuation of the custom of fraternal polyandry. The religious rituals play a central role in the maintenance of Phasphun and death ritual paving way to balance between society and environment. On similar lines were the observations of Rappaport (1968) in his study of Tsembonga Maring farmers of New Guinea and their practice of ritual killing of domestic pigs to maintain an undegraded environment which helps avoid endangering the existence of regional populations. Still broader is Geertz's (1963) framework, quite in tune with idea concerning Ladakhi polyandry, of system ecology which he could coin in his study of Indonesian agriculturists while stating that 'historical and political factors are part of the total environment to which populations adapt and must, not be dismissed as secondary; However, I keep my reservation on historical factor. Whatever be the game of ideas, identical or polemical, one thing sure is

that environment should not be dismissed, taking it as a lighter factor, in the study of culture. For the culture and environment are inseparable, though they otherwise retain their respective distinct identities.

KEY WORDS Himalaya, Bhot Tribals, Social Anthropology, Human Adaptation.

ABSTRACT Acculturative and historical factors apart, many cultural and civilization traits the world over have originated, evolved and taken definite shapes for adaptation of humans to specific environmental components and niches. In contemporary social-cultural situations this construct is more meaningfully evident in case of inhabitants of isolated, difficult and imposing natural conditions where human adaptation, at the level of culture, with environment sounds remarkable. Ladakh, a district of Jammu and Kashmir state of India, represents a valid instance of this kind. The Ladakhi society and its network of cultural patterns speak of high degree of adaptation to specific environmental paradigm. Both culture and environment are taken in their broad meanings. As interpretive dimension, the theoretical baggage in respect of cultural ecology is critically reviewed in the light of substantivism originating from microsetting of Ladakhis.

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