

TRADITIONAL LEARNING PROCESS IN THE FORAGING SOCIETY-A CASE STUDY ON THE ANG (JARAWA) OF ANDAMAN ISLANDS

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Abstract: The foraging band indicates that young humans are designed, by natural selection, to acquire the culture through their self-directed play and exploration. Being an affluent forager, the *Ang* (Jarawa) of Andaman archipelago is practicing hunting-gathering as a method of obtaining livelihood by capitalizing the traditional knowledge. It is a truism that the foraging society has an inextricable relationship with the surrounding nature which the people have learnt from their tradition and day-to-day practical knowledge. They always try to maintain a symbiotic relation with the ecological niche. Each and every need-based performance is learnt with acquisition of knowledge, skills; guided by values, beliefs and habits. Needless to say that they have knowledge about sustainable utilization of natural resources; minute technical knowledge for making material objects; knowledge on territorial movement in response to harness the natural resources; knowledge of movement of constellation and other celestial bodies; knowledge of distribution and utilization of physical space in the material level; knowledge of ethnic solidarity at social level; reflection of its world view in the philosophical level. All these aspects whatever they learn eagerly passing to the descendants. The present article is an attempt to highlight those salient aspects of knowledge, which they acquired by means of non-formal education as a process of socialization.

Keywords: Forager, Ecological niche, sustainable, descendants

Learning is older than our species; it is the entire set of processes by which each new generation of human beings, in any cultural group, acquires the skills, knowledge, rituals, beliefs, love and values in short, the culture – of the previous generation. Human being is supremely cultural animal is to say that the supremely educative animal. Education is not completely depending on schooling, which is relatively a new cultural innovation, deliberate provisions to teach specific skills, beliefs and concept. Education rather forms a significant part in the overall advancement of persons enabling them to attain superior attentiveness, better conception of their social, political and cultural atmosphere and also facilitates the development of their socio-economic circumstances. Education is a very important component of human resource development and management. Education provides nothing less than a total and integrated approach to the life of an individual for the pleasant advancement of his whole individuality in relation to the community to which he belongs (Das Gupta, 1963). Education is the image and reflection of society (David, 1980).

The conception of learning in foraging society is characterized as *educative instincts* (Gray, 2007: 18-21) more depend on learning than teaching. By the education system the forager learn about means of hunting, gathering, processing foods, protecting themselves from predators, birthing, caring for infants and

combating diseases that depend increasingly on detailed, learned knowledge and theories about the local environment and on well-honed skills, including the crafting and using of tools, that are passed along from generation to generation. On the other hand, their learning process also helps to learn high levels of cooperation within bands and across networks of bands, which required the cultural transmission of social mores, rules, rituals, stories and shared cultural beliefs and values, all serving to promote cooperation.

Despite having geographical differences the *Ang* (Jarawa) of Andaman Islands is remarkably similar with other hunter-gatherers all over the world in the approach to the process of learning, which they acquire from experiences, learn from environment and at the most learn from individual house. They have a highly egalitarian social structure, make decisions by consensus, own minimum material belongings, share food and material goods within band-group members, do not have means for long term food preservation, have little occupational specialization except that based on gender and reject violence as a legitimate means of solving problems.

AREA AND THE PEOPLE

From time immemorial the Andaman Islands have great historicity. Andaman – ‘*kalapanir-desh*’ – become famous in the map of world history, perhaps, because of two reasons – first, it was the abode of world famous pure hunting-gathering tribes, the ever demanding interest of the anthropology and the anthropologist as well and secondly in administrative point of view it was turned as an important penal settlement of the British authorities during 19th century. The Andaman Islands (*Shahid Dweep* – Martyrs Island) are the ‘unsinkable sword’ stretching from Cape Negrais in Burma to Achin Head in Sumatra forming a single geographical system. The islands are the summits of submarine mountain ranges lying on the greater tectonic suture zone that extends from the eastern Himalaya along the Myanmar border to the Arakan and finally to Sumatra and lesser Sundas. This island is a part of a long Arakan-fold formed during the middle of the Tertiary period and was apparently connected with the great movements that produced the Himalaya-Alpine mountain system and the Circum-Pacific fold (Radcliffe Brown, 1922). It is consisting of minor continuation of line of volcanic activity across the sea – Bay of Bengal.

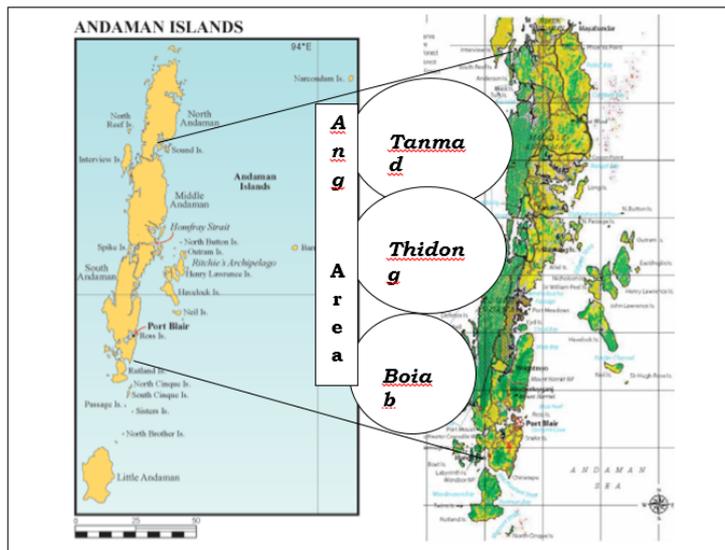


Figure: 1 – Map of Andaman Islands showing three Ang (Jarawa) territories

The group of Andaman Islands are sprawling like an arc in the Bay of Bengal from a natural gateway to India from the east. The archipelago of Andaman and Nicobar consist of 542 islands having a total of 8,249 sq. km. of which only 32 islands are inhabited by the people before Tsunami attack in 2004; after tsunami many islands in Andaman archipelago submerged and many more have come up as new islands. The area of Andaman group is 6,408 sq. km. It is located between the 10th and 14th degrees of North latitude and 92 and 94 degrees of east longitude. The group of islands is divided into two districts – Andaman district in the north and Nicobar district in the south; ten-degree channel separates both districts. The Andaman group of islands basically an agglomeration of the Great Andaman and Little Andaman with a number of outlying islets, of which the most important are Interview Island in the west coast, Ritchie’s archipelago on the east coast, Rutland island at the extreme south and outlying North Sentinel island. The extreme length of Andaman group is 219 miles with an extreme width of 32 miles. There are only few perennial fresh water streams are present in this islands.

In the Fig. 1 the *Ang* habitation area is depicted; as they are the forager group they need to have own territory from where they would harness the natural resources for their livelihood. The area of their movement is from Tirur of South Andaman up to Luis Inlet of Middle Andaman. Due to many exogenic factors, like ATR (Andaman Trunk Road) construction; settlement of Refugee population (Bangladeshi repatriate rehabilitation) and outside non-Jarawa population pressure the area of *Ang* habitation and movement become shrink and restricted to the western coast of south and middle Andaman. Their territory is grouped into (i) *Tanmad*

(supposed to be the area lies in the upper part of middle Andaman); (ii) *Thidong* (supposed to be the area lies in the lower part of middle Andaman) and (iii) *Boiab* (supposed to be the area lies in the south Andaman up to Tirur).

The Andaman Islands is the abode of four indigenous hunter-gatherer tribes, popularly identified as Great Andamanese, Onge, Jarawa and Sentinelese. The *Ang* (Jarawa) is one of the most important hunter-gatherer in Andaman Islands follows the foraging pattern of livelihoods. According to earlier studies *Ang* have resemblance with the *Aeta* tribe of Philippines and *Semang* tribe of peninsular Malaysia in the physical features.

Jarawa is not the actual ethnic identity of the people. Radcliffe Brown (1922:12) mentioned, the word Jarawa is apparently derived from the *Aka-bea* language of the Great Andamanese tribe which means 'stranger'. The native term of that group is '*Ang*', who originally are the descendants of a group of people emigrating their way across from Little Andaman and thrust themselves in upon the inhabitants of Rutland Island and the south Andaman maintaining their footing in the new country by force of arm (Radcliffe-Brown, 1948:13). The *Ang* (Jarawas) are a self-contained community having a social group 'band', possessing a common name, common habitation, common dialect, distinctive tradition, sense of unity, social custom, learned behavior, traits and mode of life. By subsistence, they are hunter-gatherers moved in a group of 15-20 or more members together. To them, a non-Jarawa tribe is identified as '*Eono*' and a non-Jarawa, non-tribal outsider is identified as '*Enen*'.

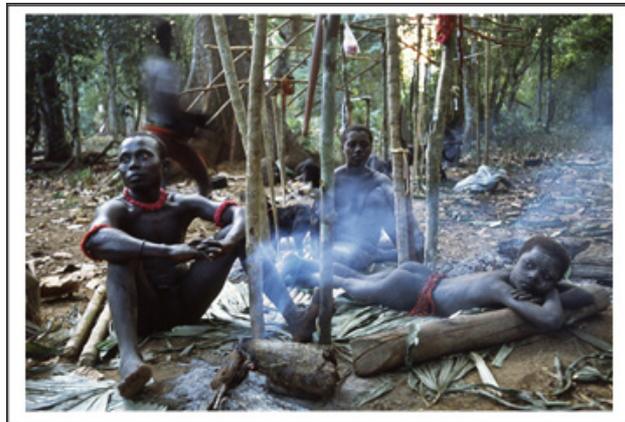


Figure: 2- The *Ang* boys are spending within a camp site [Courtesy: Archive, Anthropological Survey of India, ANRC, Port Blair]

As one of the important hunter-gatherer the Jarawa possess a nomadic life and lead to undertake a long distance in search of food and shelter. They always move in a group forming 'band' of seven or eight families. According to their tradition they always harness energy for hunting up to that extent to get a good hunt; because they have nothing to store or preserve for the future consumption. They

have strong territorial affiliation and utilize both terrestrial and aquatic resources in a sustainable way. It is in their custom that the dead body of a deceased person habitually rest inside the buttress of the tree trunk in the deep inside the jungle and deserted that place. Body painting with clay and red ochre is a significant aspect of their culture and personal adornment. While making of a permanent and semi-permanent habitation inside the deep forest they always choose such a place where sweet water resource and plentiful food are available within the close proximity.

In table No.1 a decadal population figure has mentioned on the basis of different secondary information like Census of India figure, record of Andaman Adim Janjati Vikash Samity (AAJVS). But during the course of the study in the year 2002 estimation has been made on the basis of population census and their strength has been enumerated as about 265 souls. Nowadays they are about 542 souls (AAJVS, unpublished Report)

TABLE NO. 1: DECADAL POPULATION OF THE JARAWAS

Jarawa Population											Area	
1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2003	West coast of South and Middle Andaman
468	114	114	70*	NE	50	500*	275*	200*	280*	(240)	265**	

[NE – Not enumerated* Population figure of Census of India **Population enumeration by the study group.(.) Population figure collected from Andaman Adim Janjati Vikash Samity (AAJVS)]

The *Ang* (Jarawa) are spread over the western coast of south and middle Andaman – ranges from Tirur of south Andaman to Luis Inlet of middle Andaman. Apparently a sizeable area is actually necessary for every hunting-gathering group for the ultimate use of resources both aquatic and terrestrial. The resources of one area are necessarily limited and cannot support a group of twenty or more *Ang* (Jarawa) person and that is why they have to move continuously from one camp to other in the interior jungle. Such life style of them requires an exclusive reserve of terrestrial and aquatic resources. In this context postulation of Haviland is worth mentioning; he mentioned that the hunter-gatherer population all over the world seems to stabilize in numbers well below the carrying capacity of the land (Haviland, 1978: 365).

The present extent of reserve territory for the estimated *Ang* (Jarawa) is about sufficient in the equation of two square kilometers of land per person and provides the entire resources exclusively to them. They have been tremendously interfered over the ages from colonial period to present day because repeated interference to a foraging community would make harm in their subsistence and overall livelihood.

LEARNING PROCESS IN ANG (JARAWA) CULTURE

Since hundreds of thousands of year learning process in *Ang* (Jarawa) culture exists as ‘educative instincts’ and survive as hunter-gatherers. Though with the repetitive influence of modern civilization, agricultural and industrial society pure hunting-

gathering way of life of the *Ang* has been disturbed; traditional learning process and age-old knowledge base has been started transformation. But however they live, continue to practice traditional system and learning processes that were honed by natural selection during the hunting-gathering days. Though they do not have any institutional formal education but they learn knowledge binding with tradition, values, mores and beliefs, which transmitted from the ancestors, age-old elders as a process of socialization. There are some such learning of knowledge of the *Ang* (Jarawa) are mentioned hereunder as observed during the course of study.

***Ang* (Jarawa) children has to learn an enormous amount to become effective adults**

It would be a mistake to assume that because hunter-gatherer culture was “simpler” than modern cultures, children have less to learn. Actually, the hunting-gathering way of life is highly knowledge-intensive and skill-intensive, and because of the absence of occupational specialization, each child has to acquire the whole culture, or at least that part of it appropriate to his or her gender. Boys and girls have to learn how to identify and track the many dozens of different species of birds and animals that their group hunted. They have to learn how to craft to perfection the tools of hunting, such as bows and arrows, snares, nets, and so on. And, of course, they have to develop great skill at using those tools. To become gatherers, girls has to learn which of the countless varieties of roots, nuts, seeds, fruits, and greens in their area were edible and nutritious; when and where to find them; how to extract the edible portions; and how to process them. In addition, hunter-gatherer children have to learn to build huts, make fires, cook, fend off predators, predict weather changes, navigate their hunting and gathering grounds, treat wounds and diseases, assist births, care for infants, maintain harmony in the group, negotiate with neighbouring groups, tell stories, make music, and engage in the various dances and rituals of their culture. The *Ang* (Jarawa) children are never directed for education and to do any activities by the adult member of the band group rather both the children and adolescent boys and girls are free to play and explore on their own, in their own chosen way, from dawn to dusk.

It has observed that whenever a *Ang* (Jarawa) child is able to understand he or she would be educated to use the bow and arrow properly, practiced aim and target to the pray object and the girl child follow the art of gathering from their elder members. The *Ang* (Jarawa) children get education about sharing of food except the principal hunt (pig), which is not shared with the other band members as hunting of pig is laborious harnessing of maximum calories. Children are never instructed what to do any more as they believe that children’s own wills should be their guides. It is a general rule observed that after attainment of adolescent period a boy child is separated from the family unit and allow to live along with other adolescent boys, while the adolescent girl staying with respective family unit gather knowledge on

household chores; gathering of fruits, tubers, bivalve shells; nurturing and rearing of infants and caring to the aged members; etc.

It has also observed that the *Ang* (Jarawa) children are never been isolated from the activities of adults in the band. The children observed all that went on and they heard the gossip, stories, and debates of adults from where they learn the values, tradition, custom, practices of that particular band group. They incorporated all this into their play, not because any adult told them to but because they were naturally motivated to. Adults do not give any indication of being worried about the psychological future of their children. Many a times it has observed that infants and young children are allowed to explore their environments to the limits of their physical capabilities and with minimal interference from adults. Thus if a child picks up a hazardous object, parents generally leave it to explore the dangers on its own. In the child raising process an *Ang* (Jarawa) child up to three years or so generally stay within eyeshot or at least hearing distance of their mothers or other adults; after that from four years they prefer the company of other children and begin to run freely with other kids. After attaining the adolescent period – *lepa* (for girls) and *ope* (for boys) the children start to educate them in a more effective way. At the age of about fifteen or sixteen years an *Ang* boy go alone for hunting for the first time and a girl go alone for foraging of bivalve shells, wild tubers, roots, leaves, etc.



Figure: 3- Children are free to play and explore on their own

***Ang* (Jarawa) knowledge on territory for area specific movement**

Likely to other hunter-gatherer society *Ang* (Jarawa) band group movement is also area specific. It is a part of the learning process that everybody within the band group should know the imaginary boundary of movement for harnessing the natural resources. In this manner the extent of *Ang* dominated area in Andaman Islands comprises of three such territory – *Boiab*, *Tanmad* and *Thidong*; within the

territory the movement of each band group is strictly restricted for consumption of natural resources. It is very interesting to notice during the study that while moving within the territory it is their educative instincts to move in a circular manner. In that case once in a complete round the two separate band groups' members would meet each other and get a chance to interact and exchange their ideas, views and plan of action (fig. 2). According to the knowledge whenever the natural resource of an area within one specific territory has totally been exhausted the whole band group would move to other area of same territory; nobody allows a person of other territory to exploit the natural resource.

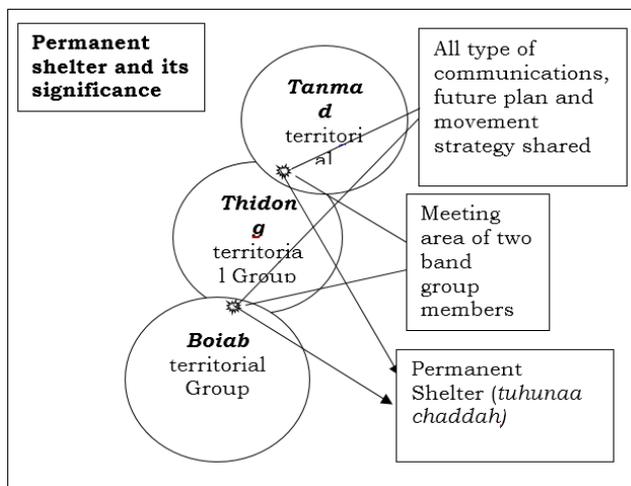


Figure: 4 – Showing the choice of constructing permanent shelter and its significance

The educative instincts of *Ang* do not permit to select a marriageable partner within the same territorial group; for marriage they have to choose a member from other territorial group. It has observed that each person is free to leave the band and may join to another band, and would do so if he or she felt put-upon. It has observed that whatever an *Ang* man or woman learn from the respective band group members they learn many things when both band group members meet together. In the common meeting place, the *Ang* member would learn to build up a strong relation between the two band group members; learn the mate selection, moreover, learn the fixation of time with areal movement.

***Ang* (Jarawa) educative knowledge on constructing of shelter and other material objects**

According to their knowledge constructing of the shelter (*chaddah*) mainly depends on the (i) availability of sweet water resource, (ii) adequate quantity of natural food resources including honey. On the basis of that the *Ang* gradually learn to

differentiate three basic structures of shelter, viz., temporary lean-to-type shelter (*thisheya chaddah*), semi-permanent shelter (*theoponian chaddah*) and permanent shelter (*tuhunaa chaddah*). It is their non-formal education helps to learn the younger people on the nature, craftsmanship and utility of these different types of shelter. Moreover, with the passage of continuous interaction within the elder members of the band group a child gets educated about the selection of raw material, procurement of raw material, arrangement of pole, placement of cross-pole, tying and knotting of cane, bark fibre to give a stable frame of their shelter; they also learn the techniques of placing the leaves for thatching. The educative instincts of the *Ang* (Jarawa) can give proper training to their younger generation about the utilization of space within a shelter. In this way each semi-permanent shelter accommodates nine to eleven families and a permanent shelter usually accommodates twenty to twenty-three families at a time without any familial dispute. Their educative instincts teach them how to maintain a family bondage without making any extra sexual linkage with the co-family members. By the non-formal education every family member use to utilize the prescribed allotted space within the shelter (*chaddah*), thus, the most precious material belongings of a hunter, the bow and arrows are always kept in secret within the inside thatched portion of that earmarked place of that family.

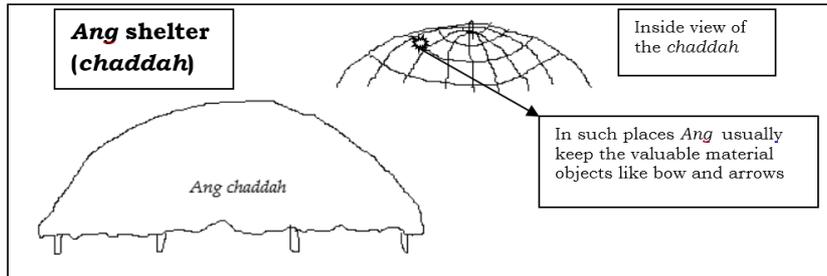


Figure: 5 – Graphical representation of the *Ang chaddah* (Jarawa shelter)

Preparation of bows and arrows, wooden bucket (*oohoo*), basket, fishing net, torch etc., needs a continuous knowledge sharing from the elder to the younger one. Not only making the item but every minute point is important which they learn from the elders of the band group through a non-formal education. It has observed during the study that as bucket is precious for storing many items from honey to bivalve shells and does not make very often due to non-availability of durable wood and the labourious job apart, the *Ang* men use to tie up ropes (made of bark fibre tanned with pig fat) synchronically in the top and bottom ends, sometimes in the middle part with horizontal arrangement to give an aesthetic look. In this way the bucket would be more durable; on the other hand, for basket making the technique of criss-cross arrangement of thin cane strips also needs training which transmitted from generation to generation.



Figure: 6- Preparation of bows and arrow-heads

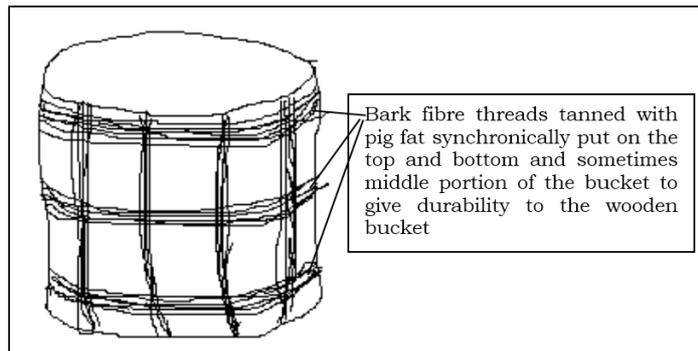


Figure: 7- 'Chest-guard': Painting with pig blood for beautification

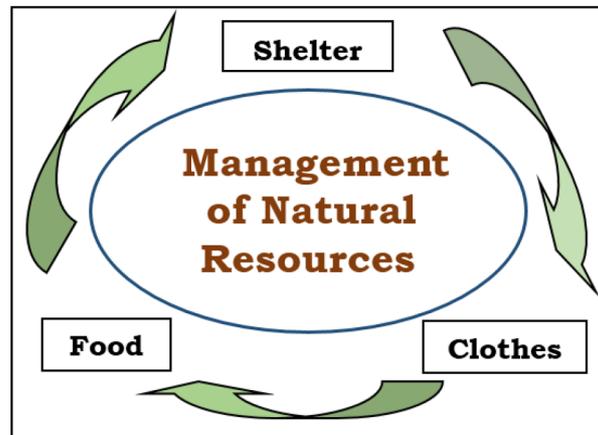
***Ang* (Jarawa) knowledge on hunting, gathering and collection of honey**

Hunting and gathering is the mainstay of the *Ang* (Jarawa) people and as an affluent forager the wild pig (*Sus andamanensis*) is a great fancy to them. While conducting field study among them many times it has observed that they have educative instincts about the right choice over the pig. In that matter they easily distinguish a good pig for hunting; little pig and pregnant pig is always left from hunting, to the common knowledge it is 'lean season'. The more educative part in hunting is the technique of throwing arrows from the bow string; the kind of intensity and accuracy is needed for piercing the bow into a pig's body and the time calculation for the moving body. Bearing all these factors in mind an *Ang* usually chase the pray and return with a successful hunt. A young adolescent child educates themselves in that whole process day by day without attending in the classroom, it is possible while playing in the nature. Every *Ang* male member has to learn individual hunting, while returning from hunting ground

with a successful hunt he has to clean the flesh without destroying much portion of that hunt. Another important part of education the youngsters learn is the sharing of principle hunt – the pig. It is also a part of education that during lean period (breeding season of the pig) the *Ang* has to depend on other aquatic (fishes, bivalve shells and molluscs, crab, turtle, sea cucumber) and terrestrial plant (roots and tubers, wild palm fruit, cane fruit, wild jackfruit, *goal phal*, *cow phal*, *aab*, berry, *arguna* etc.) and terrestrial animal (monitor lizard, gaurve larvae, honey etc.) resources. The *Ang* has to learn the availability of these resources.

As a typical characteristic of hunter-gatherer, consumption of honey is also a remarkable feature of the *Ang* daily chores. Though they do not know the scientific resemblance of fat and honey but it is in their regular practice that whenever they take pig meat or fat immediately after they consume honey as much as they can and jump into the water either sea or in creek; they learn the cause and effect relationship of pig fat with honey with water from the age-long experience and educate the younger generation. This practice makes their body fit without having extra fat. According to their non-formal education they learn that honey also produce energy which is emergently required for hunting.

Ang (Jarawa) knowledge on management of natural resources



Like other aspects of learning the *Ang* (Jarawa) education revolves around the management of natural resources. Three important needs – shelter, clothes and food are totally procured from the nature as being a true hunter-gatherer. Remarkably the *Ang* people follow the principles of sustainable utilization of natural resources which they educate to their youngsters. How they manage – it is a matter of queries. During the study often it has seen that they cut the mature round palm leaves instead of tender one; their educative instincts tells how, the tender leaves helps to grow the

plant. On the other hand, sometimes it has observed that they cut the tree for making the wooden bucket (*oohoo*), pillow etc. Their educative knowledge explains that mature tree should have to cut for the growth of nearby small trees in the tropical rain forest, where long tree canopy is so thick that sunlight is hard to penetrate on the ground. This kind of knowledge is shared among the band members through a gossip usually takes place after a successful hunt or in the evening. Their educative instincts also point out that for drinking of water a source of sweet water must be searched out before making any shelter and the water source is not more than half a kilometre from their shelter. During the study it has observed that while crossing a long distance on the western coast the *Ang* hunter usually take the thick cane water to remove the thirst; they have the educative knowledge in which patch of the jungle the cane is abundant from where they choose the right one and do not spoil many. During movement into the jungle they have experienced with such incidents and educate themselves automatically.

The food has greater adaptive importance in the *Ang* society which is guided by the non-formal educative knowledge. As for example, pig whether roasted or pit-boiled is the principle item in their diet, other than that they have consumed varieties of food items according to the season. It is very interesting to find out that a kind of management plays an important role while preferring the food items, like, during lean season, when pig meat is not taken due to breeding time food is substituted with fish, bivalve shell, turtle eggs, monitor lizard, sea cucumber (animal product) and various wild and seasonal fruits (plant product). Though they do not have any formal institutional education but still they have educative knowledge of carbohydrate rich food items (roots and tubers, wild jack fruit, wild palm fruit, cane fruit, locally available seasonal fruits etc.), which can normally be consumed in boiled and baked condition. On the other hand, the protein rich food items, whether terrestrial (wild pig, monitor lizard, gaurve larvae) or aquatic (fishes, bivalve shells and molluscs, turtle eggs, crab, sea cucumber) are consumed either pit-boiled or roasted condition. The whole knowledge base is shared, discussed and transmitted to the younger generation as non-formal education.

CONCLUSION

The incidences of self-education mentioned in the *Ang*'s culture are shaped by natural selection existed since long period of time as an affluent hunter-gatherer. Self-education by natural selection requires enormous time to do without pressure, judgement or intrusion from authority figures. That is needed to play with ideas and materials, experience and overcome boredom and develop passions. In *Ang* band (local group), adult place few demands on children and adolescent, partly because they recognize that young people need to explore on their own; learn to use the judgement in deciding the critical situation. By the non-formal, self-education a young child can explore the surrounding nature and also educate them to manage

the natural being for their livelihood practices. For that age-mixing of children with adult members are necessarily play an important role in the *Ang*'s society. Age-mixing also allows the younger children to learn to tackle the adverse situation on their own. Thus, non-formal, experience laden education helps the *Ang* people to be more caring, sympathetic towards the aged as well as children; when anybody need help, or have question that cannot be answered by other children, they can go to anybody in the band. Most of the adults, in fact, are literally their kin members. To learn to use the tools, everybody, irrespective of age have access to play with – a small boy has free access with bows and arrows, knives (*tohad*), fishing nets and all other items of equipment that are crucial to their culture. Free sharing of ideas without censorship in a gossip helps to educate the *Ang* (Jarawa) people and increase the intellectual property of self. The education of close-knit relationship building, the age-mixing and the non-competitive attitude, egalitarian ethos of *Ang* culture worked effectively to prevent serious quarrel, threats rather helps to live in a harmonious way.

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