

Environment And The Aging Experience Among South Indian Hunter-Gatherers

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ENVIRONMENT AND THE AGING EXPERIENCE AMONG SOUTH INDIAN HUNTER-GATHERERS

Abstract:

There has been much discussion on aging and peoples' concerns for old age. However, few studies have been done on the aging experience from an emic perspective. This geroanthropological paper makes an attempt to understand the aging experiences of hunter-gatherers viz., the Cholanaikkan and the Aranadan, living in the distinct ecosystem of Nilambur Valley of Kerala, South India. The paper suggests a cross-cultural perspective with the theoretical underpinning of ecological model of aging. By examining the aging experiences of tribal elders in their changing environments (physical, socio-cultural and spiritual), this paper portrays how different components of their environments move from supportive towards challenging or unsupportive, making their aging experiences more or less positive.

ENVIRONMENT AND THE AGING EXPERIENCE AMONG SOUTH INDIAN HUNTER-GATHERERS

"I have ailments, but I don't care. As long as the forest is here, I don't worry"

- A Cholanaickan

"I am alone and weak. If I fall sick, no one will take care of me. I wish I could die early"

- An Aranadan

INTRODUCTION

People experience life through the environment of which they are a part. The relationship between people and their environment, especially among the hunter-gatherer¹ societies, has always been of interest to anthropologists (Bicchieri, 1972; Bird-David, 1990, 1992; Ehrenfels, 1952; Furer-Haimendorf, 1943; Gardner, 1972, 1999; Ingold, 1987, 2000; Lee, 1968; Morris, 1976, 1981, 1982; Rapaport, 1968; Steward, 1968; Woodburn, 1968a, 1968b, 1982a, 1982b, etc.). Many scholars have noted that transformations have taken place in hunter-gatherer societies as a result of their contact with the outside world and their studies have focused on the socio-economic and political issues of hunter-gatherers in the contemporary world (Bicchieri, 1972; Devarapalli, 1996; Eder, 1987; Graburn, 1969; Griffin & Estioko-Griffin, 1985; Hitchcock & Holm, 1993; Hitchcock, 1987; Kent, 1992, 1993; Lee & Daly, 1999; Morris, 1981, 1982; Turnbull, 1983, etc.). However, changes in environment and its influence on older people, especially among hunter-gatherers, from an insider's perspective, is a relatively neglected area in anthropology.

The purpose of this geroanthropological study is to understand the aging experiences of hunter-gatherer elderly in their changing environment from an ecological perspective. In order to understand a cross-cultural view on aging in relation to their changing environment, two tribes viz., the Cholanaickan and the Aranadan², living in distinct forest ecosystems of the Nilambur Valley of Kerala, South India, were selected.

¹ "Hunter gatherers are societies with a known and locally acknowledged recent history of living largely by hunting and gathering" (James Woodburn, *personal communication*).

² I use the tribe names 'Cholanaickan' & 'Aranadan' as both singular and plural.

The Cholanaickan live in interior areas of forests and have relatively minimal contact with mainstream population, whereas, Aranadan settlements are located in marginal forest areas in the midst of non-tribes.

This paper begins with a brief review of earlier literature on hunter-gatherer gerontology followed by theoretical approach, the methodology used and a short description of the Nilambur Valley. Next, the paper examines the changing physical, socio-cultural, spiritual environments and aging experience of the elderly Cholanaickan and Aranadan respectively. Following this, a comparative analysis and emerging theoretical model are given. The conclusions arrived at are given in the end.

I

1. Earlier Studies on Hunter-Gatherer Gerontology

The study of ‘old age’ is a relatively new area in the field of anthropology. “Ironically, in spite of the dependence on the aged in their host societies, anthropologists have not considered aging and elderly as a proper subject of their inquiry until recently”(Counts and Counts, 1985:3). The first cross-cultural work on gerontology called ‘the ancestral model for studies of old age’ (Keith,1980: 340) was done by Simmons in 1945, by examining ethnographic data of the aged in seventy-one pre-industrial societies, using *Human Relations Area Files* (HRAF).³ Amoss and Harrel write:

“The pioneering work of Leo Simmons(1945) has remained a lonely monument since the 1940’s, for despite recent interest in the subject of aging in modern Western societies in the part of social gerontologists and sociologists, little has been done by anthropologists on aging in non-Western societies. Where it has been treated at all, it has been in the form of either of a few paragraph in the discussion of the life cycle or of a simple ethnographic fact among other facts about a social system”(1981: 1).

Though the anthropological study on old age commenced with ‘*The Role of the Aged in Primitive Society*’ (1945), the studies that followed later, relating to hunter-gatherers

³ *Human Relations Area Files* (HRAF) is a database organizing ethnographic reports from all over the globe by major topics and variables as outlined in *Outline of Cultural Materials* (Murdock, 2000). E-HRAF is available on the web at www.yale.edu/hraf.

(Bhanu, 1989; Bicchieri,1972, Endicot,1988; Lee and Daly, 1999; Lee, 1968; Morris, 1981, 1982; Service, 1966; Turnbull, 1961, 1973; Woodburn, 1968; etc.), paid more attention to ethnographic, socio-cultural and economic aspects. The studies relating to hunter-gatherer gerontology too focused mainly on the status and role of old people and the treatment they received from their community members (Amoss,1981; Arsdale, 1981; Biesele & Howell, 1981; Bird-David, 1990; Foner, 1985; Glascock & Feinman, 1981; Guemple, 1980; Shahrani, 1981; Sharp, 1981; Woodburn,1982; etc). These works examined aging at a distance as noted by Kaufman who said, “.... Yet not much has been written about aging by the elderly themselves, those who know the most of it” (1986).

However, a few studies have addressed the question of aging from an emic point of view (Collings, 2001; Fry, 2003; Keith et al.,1994; Shostak,1981). Shostak, explains an autobiographical account of the life experience of a !Kung woman. Keith et al. (1994) selected seven communities in their classic work ‘*The Aging Experience: Diversity and Commonality Across Cultures*’, including one community, Bushmen, who belong to the category of foragers. The study sought to understand how contextual features of a cultural setting can shape the ways in which people conceptualise and define what constitutes good old age. In a similar study Collings (2001) examined individual attitudes in later life among the Canadian Inuit community.

In India too, gerontological aspects of tribes and hunter-gatherer communities have been dealt with by only a few scholars. Studies on Birhor (Mukherjee, 1997), Bhuiyan (Behera, Parida and Mohanty, 1997), Angami Nagas (Dzuvichi, 2005), etc., have largely focused on health problems and the status and role of older people.

Studies on the hunter-gatherer communities in Kerala (Bhanu, 1982a, 1982b, 1988, 1989, 1991a, 1991b; Ehrenfels, 1952; Gardner, 1972, 1999; Kattakkayam, 2001; Mathur, 1977a, 1977b; Misra,1977; Morris, 1981, 1982, 1999; Sinha & Sharma,1997; Vineetha Menon, 1991; Viswanthan,1985, 1990) have mainly focused on their ethnographic and development aspects. Aging and factors responsible for the longevity of a numerically dominant, agricultural tribe inhabiting the Wayanad district of Kerala, viz., Kurichia has

been examined by Aiyappan et.al.(2004) and Reddy et.al.(2006). However, gerontological aspects of tribes, especially that of the hunter-gatherers of Kerala has seldom been attempted.

2. Theoretical Approach

The theoretical background to this study is influenced by the ecological approaches in anthropology and environmental gerontology. Social and cultural anthropologists consider many societies around the world to be multiple experiments in human adaptation and survival in a wide variety of physical environments (Holmes and Holmes, 1995: 4). They examined culture-environment interactions in terms of environmental determinism, possibilism, cultural ecology (Steward, 1955), ecological population (Rapaport, 1971) and cultural materialism (Harris, 1966). Based on their economic activities and their use of their environment, hunter-gatherers have been classified into 'immediate return', and 'delayed return' categories (Woodburn, 1982). Bird-David viewed the tribal environment as 'giving' and 'reciprocating' environments (1990).

Environmental gerontologists and environmental psychologists examined person-environment interaction, mostly in institutional settings (like old age homes). Their widely applied theoretical framework is known as 'ecological model of aging' (Lawton and Nahemow 1973; Lawton, 1982; Nahemow, 2000). This is most often referred to as Lawton's ecological model (Lawton & Nahemow, 1973; Lawton & Simon, 1968), which represents a landmark in environmental gerontology (Golant, 2003; Wahl & Wiesman, 2003).

The ecological theory of aging (Lawton & Nahemow 1973; Lawton, 1982; Nahemow, 2000) explores the interplay between persons and their environment with a central concept of adaptation level. The person is defined in terms of a set of 'competencies', and the environment is defined in terms of demands or 'press'. In the original model, the personal component, denoting 'competence', includes biological health, sensory and motor skills, and cognitive function. The environmental component, denoting 'press', is described in terms of four broad categories, such as personal environment (the significant others constituting the major one-to-one social relationships

of an individual - family members, friends, work associates), suprapersonal environment (the modal characteristics of all the people in physical proximity to an individual), social environment (the norms, values and institutions operating in the individual's subgroup, society or culture) and physical environment (defined as the non-personal, non-social aspects of the environment) (Lawton, 1982).

The ecological model of aging has been applied in different disciplines and has been modified and adapted to changing circumstances (Nahemow, 2000). Brown (1995) used the ecological theory of aging as a precursor of her 'urban ecological model of aging' in order to examine the suprapersonal environment in impoverished urban areas. It is observed that an anthropological approach on person-environment dynamics on aging in a community (hunter-gatherer) setting, especially within a forest environment is practically nil.

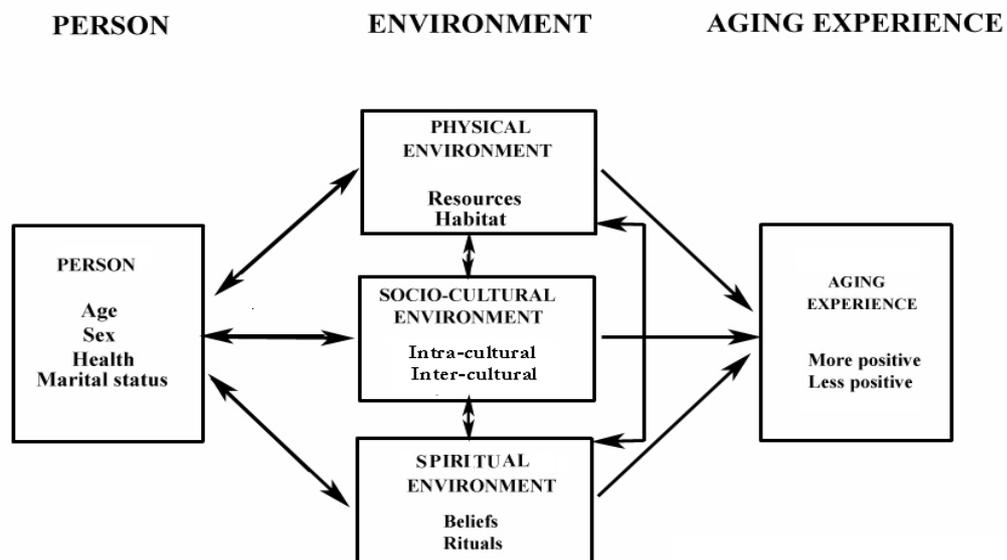


Fig.1
Conceptual Framework

My study takes a new approach to the ecological model of aging by examining the person-environment interactions and their influence on aging experience from the tribal elders' perspective (see Fig.1). In this conceptual framework, instead of personal competence, this study examines personal characteristics such as age, sex, health, and

marital status. The different aspects of environments examined here are physical, socio-cultural and spiritual. The physical environment covers resources (in this case, the forest resources) and habitat (place of living). The socio-cultural environment includes both intra-cultural (especially family, kinship) and inter-cultural (interaction with other tribes and non-tribes) environments. Finally, the spiritual environment (not examined in Lawton's ecological model of aging) examines the beliefs and rituals practised by the communities under study.

3. Methodology

My interaction with the tribes under study, along with the other tribes of the area (Pathinaicken and Kattupaniyan) began in 1992 as part of my doctoral research programme and continued upto 2004, as a part of my official work at KIRTADS.⁴ Though I could not make regular visits after that, when I approached them in 2007 (April-September), for this research, they welcomed me with the same warmth and affection as before.

Like other tribes in the area, both Cholanaickan and Aranadan are bilingual. They use their own dialect for intra-community interaction and converse with the outside world in Malayalam. Intensive fieldwork was conducted in the Cholanaickan hamlets⁵ of Myladipotti, Mannala and Alakkal, and the Aranadan settlements of Vallikettu and Kottupara. These areas of fieldwork (except Alakkal, which comes under Vazhikadavu range of Nilambur north forest division) administratively come under the Karulai range of Nilambur south forest division.

Since the study focuses on older peoples' experience with their changing environment, identifying such people was a problem, as the concept of old age has varied both over time and between cultures. For instance, in the Indian context, people who

⁴ KIRTADS- Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Scheduled Tribes, Kozhikode, Kerala.

⁵ Temporary huts erected using bamboo or reed poles, twigs and thatched with reed leaves or palm leaves.

have reached 60 years⁶ and above are generally considered old, though in developed countries old age begins only at 65. Some people look and behave young even at the age of 70 years, while others age physically at 50 years or even earlier, as found among the Arunta women in Australia (Spencer and Gillen, 1927: 32) and 40 years among the Maongol in Mongolia (Howorth, 1927: 42-43). Guemple (1974) noted among the Qiqiktamiut Eskimos in Hudson Bay that physical appearance was less important in determining old age than capability. He writes: "When a man cannot hunt in mid-winter, when the work is most rigorous and when the need for food is most pressing, then he will be called "old" by his fellows" (1974: 205). In some societies attaining the status of grandparenthood is indicative of old age (Guemple, 1974; Mukherjee, 1997; Armstrong, 2003). Thus, every known society has a named social category of people who are old - chronologically, physiologically or generationally (Amoss and Stevan, 1981: 3).

Here, in my study, in selecting old people, I was influenced by Leo Simmons (1945). He writes:

"A word should be said about what constitutes old age. Even for modern societies with reliable records of birth there are no clear cut biological tests or other generally accepted standards to establish just when old age begins or senescence is actually reached; and those which are cited are often too crude, variable, and irrelevant for practical use, except with qualifications and for a particular social milieu, or even a special occupational group. But in most pre-literate societies chronological age is of even less use, since accurate birth records are rarely if ever available. In such a study as this the only reliable criterion for the onset of old age seems to be the social and cultural one. The simplest and safest rule to follow was to consider a person as "old" whenever he was so regarded and treated by his contemporaries" (Simmons, 1945: 15-16).

⁶ As per 2001 census, the number of aged persons 60 years and above in India is 76,391,870 (37,639,066 males and 38,752,804 females), which forms the 6.9% of the total population. In Kerala, the population above 60 years (3,317,072 people with 1,478,576 males and 1,838,496 females) constitutes 10.5% of the total State population.

Both the Cholanaickan and the Aranadan lack an equivalent term for 'old age'. They identify people as 'old' when they are unable to perform their normal adult duties after reaching the stage of grandparenthood. "Most pre-industrial societies hold a functional view of aging-that is, one is old when no longer able to perform normal adult duties"(Holmes & Holmes,1995: 258). The adult duties of Cholanaickan and Aranadan men include hunting, gathering, non-wood forest products (n.w.f.p) collection, fishing, bringing home food provisions, building huts, and, locating new areas for resource collection and dwelling. Adult duties of Cholanaickan and Aranadan women consist of gathering, n.w.f.p collection, fishing, fire-wood collection, fetching water, cooking, looking after children, old and sick people.

"Primitive peoples do not live through memories, and generally have no interest in birthdays or measuring their ages"(Cipriani,1966). Though the Cholanaickan do not think in terms of chronological age, they are aware of relative age. Their kinship terms distinguish elder from younger. For instance, children upto walking stage is called *chinnakusu*, and pre-pubescent and adolescent are known as *dbodakusu*. Here, the terms *chinna* and *dhoda* represent small and big respectively. Parents are called as *appa* (father) and *aive* (mother). Likewise, kinship terms for grandparents and great-grandparents are *ethan/ ethi* and *dbodethan/ dbodaive* respectively. Old men and women are referred to as *atsan* and *achi*.

Unlike the Cholanaickan, most of the Aranadan had attended schools and a few were aware of their chronological age. They also distinguish younger from elder, and have kinship terms for children(*cheriya makka*), adolescent (*valiya makka*), parents(*yappan/yama*) grandparents(*valiya yappan/ valiya yama*) and great-grandparents(*uthan/ uthi*). Old men and women are referred to as *muthappan/ noothan* and *muthi/ noothi*. In this study, I selected people by generation, who are identified as elderly⁷ having grandchildren/great grandchildren. At the time of my field work, I could identify 27 people(17 Cholanaickan and 10 Aranadan) belonging to the category grandparents/great grandparents from my area of study.

⁷ I purposefully use the terms 'elderly' or 'elders' since all these informants are still active and perform their adult duties.

In order to understand the aging experiences, case studies have been collected from the informants through informal interviews. Further, ethnographic accounts were collected by employing participant observation, survey, genealogy and interview methods. Secondary data from various sources⁸ and earlier literature on these communities were also utilised.

II NILAMBUR VALLEY

Nilambur Valley is situated in Malappuram district of Kerala State in India. The Valley is bounded on the north by the forested hills of Wayanad district, on the east by the Nilgiri district of Tamil Nadu, Mannarkard forested hills in the south and Chaliyar river basin in the west. The Nilambur forest, which covers an area of 760.29 sq.km, is administratively divided into Nilambur south and north forest divisions⁹. The Valley has an altitude of 4000 ft above MSL and the topography is marked by hills, rocks, peaks, rivers and streams. The Chaliyar and Karimpuzha are the main rivers in the area. The area is characterized by heavy rainfall, humid climate, moderate temperature and rich flora and fauna. The Nilambur forests having unique geographical features and abundant distribution of natural resources hosts



Fig:2 Location Map

⁸ Forest department, Integrated Tribal Development Department, Health department, and Census reports.

⁹ The Nilambur south forest division has an area of 366.17sq.km and has two forest ranges viz., Kalikavu (100.57sq.km) and Karulai ranges (265.608sq.km). The Nilambur north forest division (394.120sq.km) constitutes three ranges viz., Nilambur (140.877sq.km), Edavanna (97.958sq.km) and Vazhikkadavu ranges (155.285 sq.km). It was estimated in 1986 that out of the total 272453.60 acres in the NilamburValley, 166946.71 (27.25%) acres of land is considered as forest land. These forests are situated on the western slopes of the Western Ghats. (Kerala Forests and Forestry Handbook : 1995)

a few, numerically small, food gathering-hunting tribes viz., Aranadan, Cholanaickan, Kattunayakan¹⁰, Pathinaicken and Kattupaniyan. It is widely held by anthropologists that the bountiful nature of the Nilambur forests ensures abundant food supply throughout the year and thus the tribal communities continue to lead food gathering hunting life (Mathur 1977; Viswanathan 1985; Bhanu 1989).

Prior to the commercialisation of forests, these communities occupied distinct geographical areas ranging from upper ghat evergreen to lower semi-deciduous forests and their centuries of interaction with the forest ecosystem coupled with relative geographical isolation, small population size, endogamy etc., resulted in moulding a social system of their own. Thus, the geography of Nilambur forest plays a major role in shaping the life and culture of the forest dwelling tribes, including the Cholanaickan and the Aranadan.

III

CHOLANAICKAN

The Cholanaickan, known as ‘the Cavemen of Kerala’ (Bhanu,1989) is considered to be an offshoot of the Kattunayakan (Misra, 1977; Mathur, 1977; Viswanathan,1985; Somasekharan Nair, 1981). Literally, the terms *chola* signifies ‘forest’ and *naickan* denotes ‘kings’; hence Cholanaickan are ‘kings of forest’ (Bhanu,1989:40). They call themselves as ‘*Malanaickan*’ or ‘*Sholanaickan*’ (Mathur, 1977 :13). It is believed that they migrated from the forests of the neighbouring State of Karnataka (Mathur,1977 :14). The Cholanaickan was included under the Scheduled Tribes list of the State of Kerala only in 2002¹¹. Prior to that they have been enumerated under Kattunayakan. The

¹⁰ The Kattunayakan is one of the 36 Scheduled Tribes of Kerala. They are also called as Jenu Kurumbas (*jenu* = honey, *koro* = hills and *Kurumbas* means hill man). Thus the term Jenu Kurumbas denotes *honey-cutting lords of the hills* (Thurston, 1909: 165). They are located in the trijunction of the inter-state boundaries of Kerala, Tamil Nadu and Karnataka. In Kerala, they are distributed in Wayanad, Malappuram and Kozhikode Districts. Their major concentration is seen in Wayanad district when compared to that of Malappuram and Kozhikode Districts. The Cholanaickan are seen on the southern end of the Kattunayakan population distribution in the Western Ghats. Both Kattunayakan and Cholanaickan is included in the list of the Primitive Tribal Groups.

¹¹ The Scheduled Tribes List consisting of 35 communities has been modified [as per the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002 (Act 10 OF 2003) Vide Part- VII – Kerala – Second Schedule notified in the Gazette of India dated 8-1-2002]

Cholanaickan dialect is a mixture of Kannada, Tamil and Malayalam. Their literacy rate is 9.17%. (STDD, 2000)¹².

1. Demographic particulars:

The Cholanaickan population in 1977 and 1979 was 229 (135 males and 94 females) and 205 (123 males and 82 females) respectively (Bhanu, 1989: 45). Their population at the time of this study was 347 (205 males and 142 females) consisting of 83 families (ITDP, 2007)¹³. The females sex ratio (703 females per 1000males) among the Cholanaickan has always been low¹⁴. The population under the age 15 is 42% and above 60 years is 6 %. During 1992- 2007, 145 live births (92 males and 53 females) and 19 deaths (9 males and 10 females)¹⁵ have occurred in the community. Out of 19 deaths, four people (three males and one female) died of ailments relating to old age. According to Cholanaickan, all these four had become *atsan* (old) and they have no idea about their age. It may be noted that one of the old Cholanaickan, viz., Achanala Veeran alias Anavari Veeran, who passed away in 2003, was reported as '*lokeba muthachann*' (grandfather of the world) by a local newspaper¹⁶.

2. Physical Environment: Habitat & Resources

The Cholanaickan are semi-nomadic and their population is distributed in ten groups¹⁷ in the wet evergreen forests of Nilambur at the time of the study. Each group

¹² Report of the Socio-Economic Survey of Primitive Tribes 1996-97, published by the Directorate of Scheduled Tribes Development Department (STDD), Thiruvananthapuram in August-2000.

¹³ Survey taken by ITDP (Integrated Tribal Development Project), Nilambur in 2007.

¹⁴ Infanticide is not practised by the Cholanaickan. Whether the great disparity in sex ratio results from the loss of young women in childbirth or from other factors is a subject for further study.

¹⁵ Out of 9 males, 3 were died during birth, 3 were children (two were killed by elephants and one died of fever) and the other 3 males died of old age ailments. Out of 10 females, 3 were died during birth, 3 were died of fever, one died of jaundice, another died of mysterious stomach pain, yet another died during childbirth and only one passed away due to the ailments relating to old age.

¹⁶ *Malayala Manorama* news paper (Malayalam daily) dated 4th July 2002.

¹⁷ These ten groups, known as *chemmam* are distributed in Karulai and Vazhikadvu ranges of Nilambur south and north forest divisions respectively. The ten *chemmam* identified at the time of study are Karimpuzha, Korampuzha, Panapuzha, Kuppamala, Poochappara, Talipuzha, Manna

has a well defined territory called *chemmam* and each *chemmam* is headed by an elderly male member called *chemmakkaran* (out of six elderly male informants, three hold the status of *chemmakkaran*). The boundaries of each *chemmam* is marked by rivers or hills and *alai*/hamlets are located on the banks of various rivers/rivulets¹⁸. The inhabitants of the Karulai range prefer to live in *alai* (rock shelters) or in hamlets though they have been provided with houses by the State Government, at Myladipotti and Dhodalapotti area. It may be mentioned here that a section of the Cholanaickan started living in the resettled colony at Alakkal, coming under the Vazhikadavu range of Nilambur North Forest Division. This settlement is situated in interior forests and the inhabitants have been living in the more or less same area (*Alakkal chemmam*) prior to their resettlement.

The habitat of the Cholanaickan is bountiful with varied flora and fauna. Usually inhabitants of a particular *chemmam* move within their own territory for resource collection. If they want to collect resources from other *chemmam*, they can do it only after the consent from the *chemmakkaran* of the respective *chemmam*. Thus, elderly males who hold the status of the *chemmakkaran* wield control over the resources of their *chemmam*.

The Cholanaickan roam around the upper ghat forests for small scale hunting, food gathering, fishing and n.w.f.p¹⁹ collection. In addition to various roots and tubers²⁰, they

alai, Moocha *alai*, Myladipotti and Alakkal. (For more details on territorial divisions, see Bhanu, 1989)

¹⁸ Name of rivers/rivulets and *alai* are Karimpuzha, Cherupuzha, Manjakallanpuzha, Talipuzha, Korapuzha, Panapuzha and Punnapuzha, Manna *alai*, Poochappara *alai*, Meenmutti *alai*, Korumpuzha *alai*, Achan *alai* etc. All these caves are natural and permanent in nature. There are as many as 400 caves in the forest and all are named and inhabited by Cholanaickan. Each territory has nearly 10 to 50 caves in different parts of the forest (Bhanu, 1989:86).

¹⁹ N.w.f.p (non-wood forest products) are also called as m.f.p (minor forest products) and n.t.f.p (non-timber forest products). *Jenu* (honey), *kollakkay* (*Anamirita coculus*), *neeratti* (*Hydnocarpus pentandra*), *pandam* (dammer), *kattingi* (ginger), *elakka* (cardamom), *kattukurumulaku* (*Piper argyrophyllum*), *nelli* (gooseberry-*Phyllanthus emblica*), *kanchirakkuru* (*Strychnos nux-vomica*) etc., are some of n.w.f.p collected.

²⁰ Roots and tubers usually collected by the Cholanaickan are: *nara* (*Dioscorea hipsida*), *savala* (*Dioscorea spicata*), *noora* (*Dioscorea oppositifolia*), *venni* (*cholavenni*, *pathivenni*, *gasvenni* and *palvenni*), *koyana*, *kavala*, *kavathu*, *koova* etc. and most of these items come under the family Dioscoreaceae. These items are collected with the help of simple implements like *kolu* (digging stick sharpened at one end), *kathi* (knife), *kodali* (axe) and *pare* (long digging stick hafted with an iron blade at one end).

collect varieties of green leaves, fruits, mushrooms, ferns, piths of bamboo shoots, wild palms, seeds etc. Their knowledge of forest flora is astounding. It has been noted that a Cholanaickan could identify 16 varieties of edible leaves, 15 kinds of fruits, 22 types of seed and 13 varieties of mushroom (Bhanu, 1989:68). The Cholanaickan elders told me that they do not find any difficulty in locating resources as they have been moving around the forest even during their childhood, along with elders.

“I have been collecting tubers from the forest even when I was a boy. I used to accompany my *appa* (father) then.” (*A widower*)

“You, know, my *appa* was an expert in hunting various game. He knew every nook and corner of the forest; I also moved with him and I too know the area well. My father could find honey combs by observing the movements of honeybees.” (*A elderly man*)

Like many hunter-gatherers, certain hunting²¹ activities are entirely men’s work among the Cholanaickan. For collection pursuits, they roam in the forests either individually or in groups depending upon items, area of collection and seasons. During summer season all the Cholanaickan move closer to river banks, whereas, during monsoon they migrate far away from river banks (Bhanu, 1992: 220). Usually, elderly male members in a family or group (not necessarily) are the decision makers of such movements and resource exploitation. Elderly people have vast knowledge of forest ecosystems, availability of various resources in different seasons, movement and behaviour of animals, etc. and their knowledge is valued by others as noted by Bhanu, “The old people narrate their past experiences in the forest and others listen to them attentively”(Bhanu, 1989: 96).

When compared to men, Cholanaickan women spend their major time in and around their hamlet. They usually engage in fishing, fire-wood collection and gathering of various resources. Elderly women also take part in gathering. All elderly women I interviewed shared the same opinion recorded by one among them.

²¹ They hunt different game like are *mullanchi* (porcupine), *ud* (iguana), *kattukoḻhi* (wild cock), *Karimkurangu* (Nilgiri langur), *kodan* (Bonnet macaque) and *paran* (Slender loris) etc

“Some times I go for gathering, some times I won’t. Even if I won’t go, I get enough food from others” (*A widow*).

While elderly women occasionally trust other members for food, most of the Cholanaickan men rely on the forest for their living, as is reflected from their words .

“I have back pain and I am gradually losing my eyesight also. So I cannot go to the forest as frequently as earlier. But, still I collect *pandam* (dammer) and *jenu* (honey). We also gather tubers for us. **The forest has enough for us.**” (*An elderly man*)

“I have ailments, but I don’t care. **As long as the forest is here I don’t worry**” (*A chemmakkar*)

Though the physical environment of the Cholanaickan has not changed much, the area is experiencing non-tribal interferences owing to various activities (like construction of road, houses, plantation activities, etc.) by the forest department, tribal co-operative society and tribal development department. The Cholanaickan men who have contacts with outside world are aware of the challenges in their physical environment. Their hunting activities are reduced or restricted by forest laws, and foraging and fishing activities are occasionally challenged by non-tribes. While talking on hunting and fishing activities, Cholanaickan elders told me:

“ We do fishing by making *meenkaikettathu* (making bundles to check the flow of water) and adding *mathu* (stupefiers - like crushed seeds of *neetikuru*, *kanjirakay* and barks of *kurunthacalli*, *nanjuvalli* etc) in it. These *mathu* stupefy fish and we picked them up only for our needs. **We never use poison or explosives for fishing, as others do now-a-days**” (*A chemmakkar*)

“..... **Now, everything has changed, even if we try to hunt monkeys or other game, the forest department does not allow us to do so**” (*Another chemmakkar*).

3. Socio-cultural Environment

a. Intra-cultural: Family and Kinship Environments

Throughout human history the family has been the safest haven for the aged. Its ties have been the most intimate and long lasting, and on them the aged have relied for greatest security (Simmons, 1945:176). As far as the Cholanaickan are concerned, conjugal family forms their basic socio-economic unit. Joint and extended families are also not rare. Usually, a husband and wife establish a family soon after marriage and raise their children in the family they find. When the children grow up, they get married and establish a new house near their parental hut. So, elderly parents living alone and making their own life is common. Out of the seventeen elderly informants in the area of study (seven couples, two widows and one widower), four couples live separately, but very near to their children's family. One couple, who has become *dhodethan* and *dhodaive* (great-grandparents), lives with their son's family. One widow stays with her son's family. Another widow and a widower reside with their daughters' families.

Cholanaickan follow *chemmam* exogamy. As mentioned, family members in each *chemmam* are patrilineally (not necessarily) related and live nearby. A woman after marriage lives in her husband's *chemmam*, either with his parents or in the newly established hut near to his parental home. Daughters who move out of the *chemmam* are replaced by daughters-in-law and elders are usually taken care of by their daughters-in-law.

Elderly males are consulted (not always) for resource location, honey collection, building huts etc. Similarly, elderly females are consulted especially for childbirth and related assistance. *Chemmakkarani* is contacted by others for naming their children, choice of marriage partners, settlement of disputes and treatment of illness.

Among the Cholanaickan, elders are seldom idle. They do all their adult duties. Both men and women do gathering, n.w.f.p collection, fishing and basket making. But hunting, bringing food provisions to home, building huts, and locating new area for resource collection and dwelling are exclusively done by men and fire-wood collection,

fetching water from river, cooking, looking after children, old and sick people are the duties of women alone. Quotes from a few elderly.

“Even though I have problem with my sight and hearing, I am quite alright [*laughing*]. But a couple of months ago I had severe fever and I was admitted in the govt. hospital. When I got discharged, I took rest for a week or so. My son and his family shared their food with us. Now, I am quite alright and go to forest. **See, I am strong, healthy and happy** [*laughing*]. **We, the Cholanaickan are like that. We do our work as long as we can. I get enough from here (forest)**” (*A chemmakkaran*)

“ My *enrichi* (wife) passed away few years ago. Now, I am living with my daughter. They give me food. But **I still go to the forest**” (*A widower*)

“I have body pain and at times back pain too. **We do everything-cooking, gathering, fishing and what not**” (*A widow*).

Usually for gathering and n.w.f.p collection (except honey), husbands and wives go together, sometimes leaving behind their children with their grandmothers. Usually in the absence of their parents, it is the duty of a grandmother to look after grandchildren, feed and bathe them. Grandchildren give a helping hand to their grandparents in fetching water, gathering, fishing and fire-wood collection. The relationship between grandparents and grandchildren is warm and nurturing. An elderly woman mentioned:

“Our sons are living in our *chemmam*, near to us, but in separate households. Some days I go for gathering, or other days I look after my grand children, when my son and his wife go out. **I am really happy to be with my grandchildren** [*laugh*]” (*An elderly woman*).

When compared to a grandfather, a grandmother seems to be more caring and concerned for her grandchildren. This can be illustrated by an incident. During my fieldwork, I accompanied an elderly couple to Karulai post-office to get their ‘old age’ pension. (The couple told me that both of them have no idea about their age, but get an amount of Rs.180/- as monthly ‘old age’ pension). After obtaining pension by making

thumb impression on the money order form, they counted the amount and kept it separately. Then they went to a tea-shop nearby, had tea and snacks; and paid their bill individually. After that the elderly man bought rice, condiments, betel leaves and areca nut. The elderly woman also bought betel leaves and areca nut, but in addition, she bought certain bakery items for her grandchildren. She told me that her grandchildren are very fond of these. They also told me that they would share rice and condiments with their son's family, and if he asks, they are happy to give him their pension too.

Among the Cholanaickan, though the families living in an area share the same hamlet, they keep separate hearth. The food sharing practices of the Cholanaickan are supportive to the aged. A widow's response:

"I live with my son. I don't go anywhere. My son brings me food. **Sometimes others also share their food with me.** I am fine [*laugh*]" (*A widow*).

Usually, the game and gathered tubers brought into the hamlet are shared with all inhabitants (in Alakkal, though sharing of food has been changed from communal level to household level, elders are seldom neglected). The prepared food is also shared with all. Though women prepare and serve food, *chemmakaran* or the eldest male member in the family hand over the plate to others and makes sure that none is omitted (Bhanu: 1989). Thus, all inhabitants, especially the old people always get a share from the prepared food. The same kind of food sharing practice has been observed among the Eskimo too (Holmes and Holmes, 1995: 152).²²

The Cholanaickan are monogamous and usually women get married soon after menarche. It is observed that in most cases, wives are much younger than their husbands. The marital life of elderly couple shows that their marital ties are relatively stable and usually one re-marries if one loses his/her partner. Out of the five elderly couples, except one, all others are remarried to their present partner, a few years after the demise of their first partner. The children born to their earlier marriages also live

²² "As is often the case among hunting people, the Eskimo have developed food sharing practices that ensure that widows, orphan, and the elderly are provided for. In some cases the elderly men are in charge of food distribution, and therefore they can make sure that young and all receive adequate commissary" (Holmes and Holmes, 1995:152).

with them and help them. Thus, with advancing age, couples get social and psychological support not only from each other, but from their children as well. Even if a widow or widower does not re-marry or has no children to look after him/her, they are taken care of by the other members of the hamlet.

b. Inter-cultural Environment

The immediate neighbourhood environment of the Cholanaickan is occupied by the Pathinaickan. Earlier ethnographic accounts say that Cholanaickan consider Pathinaicken as hostile and were reluctant to make alliances with them as they experienced marital ties, which are transient in nature (Bhanu, 1989; Viswanathan, 1985; Madhava Menon, 1996). During my fieldwork, I went to attend a death ceremony of Pathinaicken (Pattakarimpu settlement), which was also attended by a few Cholanaickan elders. On my enquiry about their contact with Pathinaickan, a Cholanaickan elderly replied:

“Yes, years before, we had little interactions with Pathinaicken. We won’t enter their *chemmam* earlier. But things are changing. This is my second wife. She is a Pathinaicken. I married her a few years after the death of my wife. She too lost her husband. We met each other and thought of living together. Now, my son married from here. Moreover, the *chemmakkaran* of this settlement invited us for this function and he also asked me to bring *daiya kottai* for keeping their deities. My son lives here and we often visit here to see our grandchild”(A *chemmakkaran*).

The relationship between the Cholanaickan and the Pathinaicken is observed as cordial and even elders do not find any problem in interacting with the Pathinaicken and marrying their women. Besides Pathinaicken, the Cholanaickan also have marital ties with Allar (another tribe). They also interact with other tribes (Paniyan, Kattunayakan, Kuruman and Aranadan) and non-tribes, whom they meet during collection pursuits or forest labour and also when they visit market, hospital, theatre etc.

The Cholanaickan also have frequent contacts with the people associated with Tribal co-operative society, Forest department, Integrated Tribal Development Project (ITDP), educational institutions, research institutions and health department. Cholanaickan elderly are seen actively involved in participatory forest management

programmes and various workshops conducted by KIRTADS. The institutions functioning the neighbourhood environment of the Cholanaickan are the tribal co-operative society (at Myladipotti) and *Badal*²³ schools (at Myladipotti and Alakkal). Elderly men have more contact with outsiders than elderly women. Usually males (with their sons and grandsons) visit the tribal co-operative society once in a week (usually on Mondays) for the transaction of n.w.f.p items for rice and condiments. The elderly men also do the works or duties entrusted to them by the Forest department and a few avail ‘old age pension’ too.

“ You know, I am a forest watcher and the President of AVSS (Adivasi Vana Samrakshana Samithi) at Manjiri. We do jobs like fire-watching, *jendapni* (boundary clearing), etc. We get Rs.125/day. Moreover, I get money from forest resources. **Even though I don’t know my age, I get old age pension. They (the postmen) say that I am now 70 years old.**” (*A chemmakkarani*).

The elders told me that they are happy about their children going to the school within their colony and they feel sad about sending their children to the *Asbram* school (model residential school) at Nilambur, which is almost 20 km away from their habitat. They told me that they like to have their grandchildren in their vicinity and miss them very much if they go away to residential schools.

4. Spiritual Environment : Beliefs and Rituals

Elderly Cholanaickan males, especially those who hold the status of the *chemmakkarani* are respected by the community, as they believe that they have religious powers. *Chemmakkarans* act as custodians of their deities such as *deva* (ancestors), *mala deivam* (god of mountain), *ole deva* (god of river), *nilalu* (spirits) etc. These deities are kept in a corner of the hut or caves in bamboo basket called *deiva kotta* (divine basket). In Alakkal settlement, these *deiva kotta* are kept in a separate sacred hut called *deivapura*.

²³ *Badal* school (the term *Badal* literally means ‘alternative’) is an alternative and innovative educational institution run by the State Government under the scheme Sarva Shiksha Abhiyan (SSA). It is a multi-learning centre with separate syllabus and is set up in geographically isolated areas where children have no access to regular schools (Source: District Institute of Education and Training (DIET), Nilambur, Malappuram)

They believe that their *devva* are their dead ancestors who control forests and look after them. So, they attach relationship to their ancestors through their habitat. This can be explained through an incident. During my fieldwork among the Cholanaickan, two tourists arrived at Nilambur and one of my informants was asked to guide them. Later he told me that these tourists were running a hotel at their place and wanted him to go with them. They offered him a job, good salary and better food. But he refused. Then he paused and said:

**“angadikku ernagiyalum kadu jnan vidoola. Karanavanmarude²⁴
kadanu, ividethanne marikkanam”** (even though I go to market outside,
I prefer to live in this forest. This is my ancestors’ forest and I should die
here) (*A chemmakkaran*).

The Cholanaickan do not perform elaborate life cycle rites. A child is named after his or her paternal or maternal grandparent living or dead, (by the *chemmakkaran*) although the name might be changed later²⁵. Many occasions I heard the Cholanaickan fondly telling that their children or grandchildren are named after their parents or grandparents. Death rituals are also very simple. A person after death is buried in the cave and his/her belongings are also buried near him/her. Sometimes, after burial, family members leave the place for ever or at times they come back to the place after an interval of a few months. During my field work I never noticed a Cholanaickan worrying about his/her death.

The Cholanaickan believe that disease is caused by wrong doing, which invokes the displeasure of *devva*, and for them, the *chemmakkaran* is the sole person capable of treating them. So, any illness is consulted with the *chemmakkaran* of the respective

²⁴ ‘*Karanavar*’ is a Malayalam term used by non-tribes to represent elderly people. It is also used as a kinship term (term of reference) generally for ‘mother’s brother’. It also denotes ancestors. Cholanaickan usually denote the term ‘*devva*’ to represent their ancestor. My informant told me that he used the term *Karanavar* for his ancestor ‘to make me to understand better’.

²⁵ Bhanu notes that “..... names are changed from the father’s side to the mother’s side or vice-versa, if the child falls sick after it is named” (1989). It is noted that when children get admission in school, usually they are given a new name in their register by the school authorities.

chemmam, who performs different religious diagnosis from simple to complex known as *urattusattu*²⁶, *devva valatsatu*²⁷ and *adikanathu*²⁸. According to the nature and seriousness of the disease *chemmakkaran* performs trance and spells out the cause of disease and the ill person has to pay fine, depending upon the nature of his/her *kuttam* (offence). They believe that if the person does not recover even after conducting *adikanathu*, he reaches the stage of *joonodhu* (death), where nothing can be done. A few elders remember:

“While I was a child, my mother got *koottu* (disease) and my father could not save her life, even after conducting *uratusatu*, *devva valasatu* and *aadikkanatu*. My mother’s body was buried in the *alai* where we lived and we shifted to another *alai*.” (*An elderly man*).

“My *gannatsan* (husband) fell ill and we performed *aadikkanatu* but did not recover and later he was admitted to Nilambur hospital, but he passed away” (*A widow*).

“My *appa* died at Alakkal, where he got sick and laid. My *aive* (mother) looked after him and the *chemmakkaran* performed *aadikkanatu* and found that nothing can be done. We are like that, usually when we understand a person cannot be saved even after conducting *aadikkanatu*, he is given water and tubers and made to stay in the *alai* (cave) and we resume our work. It is like that. My father’s case was like that. After his death, he was buried in the *alai* and we moved from there. **We are like that, and it is quite ordinary**” (*A chemmakkaran*).

Even though the Cholanaickan have started utilising modern health care systems provided by the State Government, most of them still opt for their traditional religious diagnosis and sick or old people are provided with food, water and psychological

²⁶ *Urattusattu* is the primary step of religious diagnosis. This simple common performance by the *chemmakkaran*, who blows air on the body of the patient from head to bottom.

²⁷ *Devva valatsatu* is the next step of treatment, if the patient is not cured after conducting *urattusattu*. Here, the *chemmakkaran* consult with their ancestors for the cause of the illness, using the bell form the *daivakotta*.

²⁸ *Adikanathu* is the last resort by which the *chemmakkaran* possessed by their ancestral spirits to find out the cause of illness.

support not only by the family members but by the whole hamlet as well. Moreover, the religious diagnosis and trance dance of the *chemmakaran* also provides psychological support from their spiritual environment.

IV

ARANADAN

The Aranadan, the numerically smallest tribe of Nilambur Valley, are also known as *Ernadan* (the people of Ernad) as their population is distributed solely in Ernad taluk²⁹ (Fuchs, 1973; L.A.K. Iyer, 1968; Luiz, 1962; Thurston, 1909; Viswanathan, 1990). The literature available on the origin and history of the Aranadan is limited. Luiz (1962: 39) assumes that Aranadan are an early Dravidian group, who came to Kerala several centuries ago from the northern states. None among the Aranadan could give convincing information about their origin. Their dialect is a mixture of Malayalam, Tamil and Kannada (Luiz, 1962). Their literacy rate is 21.26 per cent (Kakkoth, 2001).

1. Demographic particulars

The Aranadan population reported in the 2001 Census is 153 with 70 males and 83 females. But the survey taken in 2007 showed a population size of 284 persons, with 141 males and 143 females. The females sex ratio per 1000 males is 1014. The population below 14 years is 34% and above 60 years is 3%. During 1992- 2007, 96 births (45 males and 51 females) and 41 deaths (24 males and 17 females) have occurred in the community³⁰. While attending the death ritual of her sister's son (died of cervical cancer) an elderly woman moaned:

“ I don't know what is happening to Aranadan. Our *chukkan* (sister's son's son) too passed away a few months back. You know, while I was a child,

²⁹ Ernad taluk in Malappuram district has been bifurcated into Nilambur and Ernad taluks in 1996 and the Aranadan population distributed earlier in Ernad taluk, now administratively comes under the Nilambur taluk.

³⁰ Out of 41 deaths that occurred within a span of 15 years (1992-2007) 24 were males and 17 were females. The cause of death of males & females are as follows. Males (24)- neo-natal (5), rheumatic fever (1), heart attack (2), oedema (1), cancer (2), scorpion bite (1), accident [4 -(bus accident-1 & fallen from tree-3)], suicide (3), murder(3) and old age (2). Females (17) - neo-natal(4), rheumatic fever(2), heart attack(3), jaundice(1) murder(2), cancer (2) and old age (3).

this area contained Aranadan alone. Though many died of small-pox at that time, our elders and my grandparents lived long. Now, all are dying soon. I don't know why" (*An elderly woman*).

The elderly woman's anxiety is factual. Evidences showed that out of 41 deaths, only 5 people (2 males and 3 females) died of ailments relating to old age. The cause of death of the other 36 were either due to illness or unnatural. Between 1992-2005, 36 deaths in a population of 284 were attributable to unnatural causes as follows, 5 murders, 3 suicides, 4 accidents, 4 cancer cases and 5 heart attacks.

2. Physical Environment : Habitat & Resources

The Aranadan population is distributed in the fringes of Nilambur forests either in Government built colonies (established in 1970s) or in hamlets.³¹ Before discussing the experience of elders in their present physical environment, it is important to have an understanding about the changes occurring in their habitat.

In the early part of the 20th century, the Aranadan were leading a semi-nomadic life in the lower valley of the Nilambur forest and practised small scale hunting and gathered roots and tubers for subsistence (Thurston,1909; Luiz, 1962). The commercialization of forest products started during the colonial period³². The Forest Department also had its own working plan for the exploitation of the forests of the area. During 1970-85, thousands of acres of semi-deciduous forests have been converted into teak and rubber plantations. Teak plantation activities have become intense in the last thirty years. The Karulai Forest Range (covering an area of 265.608sq.km), where the majority of the Aranadan do foraging, was converted to teak plantation. The planting of teak trees also

³¹ Most of the Aranadan families are provided with land and houses by the Government in five colonies established in the 1970s and 1980s at Cherupuzha-Vallikettu, Kottupara, Kalkulam, Chokkad and Palad. They also live in hamlets (traditional settlements) located at Puncha, Pottikallu, Palangara, Panampatta, Aranadanpadam, Palemadu, Chembenkolli, Mylampara, Poovathipoyil, Vellakkatta, Adakkakundu and Kodalipoyil. These settlements/hamlets are geographically distributed in Karulai and Kalikavu ranges of Nilambur south forest division and Vazhikkadavu range of the Nilambur north forest division of Nilambur taluk.

³² The British started the first ever teak plantation in the world at Nilambur in 1882. Nilambur was connected to Shoranur by a meter gauge rail-road in 1927 by the British to transport timber.

requires the bringing in of non-tribal labourers in large numbers. In teak plantations, every four years there is thinning and logging activities, for which the non-tribes are deployed. It is also observed that after felling the forests, the area is given for cultivating various dry land crops. These cultivations are undertaken by the non-tribes. Thus, during the last forty years, non-tribal population influx has been taking place in the region [The total number of population in Karulai panchayth has increased from 13237 (1971 census) to 44763 (2001 Census), and the total number of households have increased from 1945 (1971 Census) to 8009 (2001 Census)] and several growth centres have sprung up near the forests owing to settler influx. Now, the Aranadan population is living in the midst of non-tribes. The elders still depend on forest resources, while most of the generation have turned into forest labourers and wage labourers.

Prior to their resettlement the Aranadan had been living in more or less the same area where they were provided colonies in the 1970s and 80s. The Aranadan elders told me that at that time their community members were predominant in the area and had their own *chemmam*³³ for resource collection. A few elderly remember:

“You know, while I was a child, this was a forest area with many game like elephant, bear, jackal, porcupine, iguana, python etc. **I could see only Aranadan pira**³⁴ **here at that time.** We moved with our parents in and around here to gather *kejangu* (roots and tubers), *puchan* (mushrooms), leaves etc. **But now, I have to go further inside the forest and spend more time in collection**” (*A elderly man*)

³³ According to my informant they had seven *chemmam* (territory) while he was a boy, viz., Kottupara *chemmam* (covering the areas from Kottupara- Karimpuzha), Vallikettu *chemmam* (Cherupuzha-Mylampara), Panampatta *chemmam* (Karappuram- Kalkulam- Poolakkapara-Nellikuthu), Palangara (Karimpuzha-Vattapadam- Palunda), Pucha *chemmam* (cherupuzha-Kottapuzha), Kodalipoyil *chemmam* (Edakkara-Mundakkal) and Vellakatta *chemmam* (Edakkara-anamari- Punnapuzha).

³⁴ *Pira* is only a temporary shed like structure erected on six bamboo poles. Two comparatively long bamboo poles are erected at the centre, with the rest four at four sides, in a rectangular shape. It has neither sidewalls nor any beaten daubed floor. Wild twigs and jungle poles form the framework of the roof. The roof is thatched with reed leaves or teak leaves. The height of the *pira* is less than five feet in the middle and one has to stoop to enter it.

“While I was a child, this area was full of bamboos and my *yappan* (father) and *valiya yappan* (grandfather) were also engaged in bamboo cutting. But later ‘Birla’ cut all these bamboo from here” (*An elderly woman*)

“Even though we spend more time in the forest, we do not get enough for our food. But we still prefer to go to the forest” (*A couple*).

The Aranadan elders do small scale hunting³⁵, gathering³⁶, fishing and the collection of n.w.f.p³⁷, medicinal plants³⁸ and fire-wood. Their collection pursuits are confined to semi-deciduous forests of the lower valley and fringes of the forests. Though the Aranadan are provided houses by the Government, the majority (during summer) move into the forest for collection pursuits and at that time they reside in the banks of rivers by making *pira*. They are well aware of the changes occurring in their physical environment.

“Earlier many things were available here like, *cheenikka*, *kanjiram*, *marotti*, *uruvanchi* etc. **Now, nothing is here. I spent a whole day and didn’t get even a *puchan*** (mushroom), you see” (*A widow*)

“ Earlier, we did not have to go to inside the forests, everything was available here. **But now, I find difficulty in collecting even green leaves**

³⁵ Hunting is limited to small game like tortoise (*vellama*, *karuthama* and *karayama*), crab (*todu nandu*, *padathu nandu*, *puzha nandu* and *para nandu*), etc.

³⁶ Roots and tubers - *noora*, *nagavalli*, *kavala*, *panchiputta*, *korana*, *pathivenni*, *mooval*, *padakizhangu*, *mookuchuve* etc. Mushrooms- *marapuchan* (seen on the dead wood), *mulapuchan* (seen on bamboo), *thakarakuimi* (seen on the cut pieces of teak wood), *pallanpuchan*, *nuchithadan* (grow on the ground), *pada puchan* (seen in the fields) and *mayilan koonan* (seen in river banks).

³⁷ *Thenu* (*Apis* sp), *thenmezhekku* (honey wax.), *cheenikka* (*Acacia concinna*), *marottikuru* (*Hydnocarpus pentandra*), *mullilakkay* (*Zanthoxylum rhetsa*), *nellikka* (*Phyllanthus emblica*), *kurumulaku* (*Piper nigrum*), *maramanjil* (*Coscinium fenestratum*), *katini* (*Zingiber zerumbet*), *kanchirakkuru* (*Strychnos nux-vomica*), soap nut, etc.

³⁸ The commonly collected medicinal plants include; *amalpori* (*Rauvolfia serpentina*), *incha* (*Acacia caesia*), *idampiri valampiri* (*Helicteres isora*), *maramanjil* (*Coscinium fenestratum*), *koduveli* (*Plumbago indica*), *kurunthotti* (*Sida retusa*), *moovila* (*Psuedarthria viscida*), *sathavari* (*Asparagus racemosus*), *nannari* (*Hemidesmus indicus*), *pambuvalli* (*Sida rhombifolia*), *padakizhangu* (*Cyclea peltata*), *orila* (*Desmodium gangeticum*) and *thippali* (*Piper longum*)

for food, as these items are also used by our neighbours (non-tribes)”

(An elderly woman).

“While we were living in our *pira*, elders brought hunted rabbit, *udumbu* (iguana), deer etc. **At that time we used to get python³⁹ at least once in a week. But now, we don’t get any”** *(An elderly man).*

The foraging areas of the Aranadan were bountiful with various flora and fauna and the marshy areas were the abode of pythons. Changes in the habitat owing to conversion of the semi-deciduous forests into plantations, non-tribal migration, deforestation and development activities resulted in competition with the other communities for subsistence and as a result the Aranadan lost control over the resources of their area, though their elders still pursue foraging in their lost land.

3. Socio-cultural Environment

a. Intra-cultural: Family and Kinship Environments

Like Cholanaickan, conjugal family is the basic socio-economic unit among the Aranadan too. Being a community subsisting on pre-agricultural level of technology, the economic life of the Aranadan revolves around the earning potential of husband and wife as a unit. Out of the 10 elderly informants [one couple, two widows and the remaining six (one male and five females) are separated from their spouses] from the area of study, one woman lives with her daughter, a couple live separately from their children, one widow lives with her son and remaining six elderly are living alone. Three elderly women have no children (but they are addressed *noothi* (grandmother) by their sister’s grandchildren.

As mentioned earlier, prior to resettlement, the Aranadan society too maintained territorial identity (*chemmam*) with patrilineal kin groups. The elderly male member in a

³⁹ Among the tribes in the Nilambur Valley, the Aranadan is the only tribe that eats the flesh of pythons. Both husbands and wives participate in python hunting. After a hunt, they bring it to the hamlet, cut it into several pieces using hand axe and the flesh is shared with all members in the hamlet. By selling its skin and oil to non-tribes, the Aranadan get cash. In addition to the flesh, they consume both fat and eggs of the python. Earlier writers have noted that Aranadan devour snakes and the putrefied flesh of various animals [Thurston(1909: 217); Stephen Fuchs(1973: 216)]

chemmam acted as *chemmakkaran* and he was consulted and obeyed by the rest of the hamlet people.

“before making any *pira*, we had to consult *chemmakkaran* and **we were supposed to make *pira* only on the spot shown by him**” (*An elderly man*).

But when the community was made to settle down into the Government colonies (2-3 acres of land) and the foraging areas were occupied by non-tribes, the Aranadan lost their control over the resources of the area, which led to the decline in significance of the *chemmam* (now, the Aranadan are known by the colony in which they live) and the role of the *chemmakkaran*. Community life based on social gathering and sharing of food between people of a hamlet has also decreased. According to a few elders:

“I remember, at that time, we got enough fish, crab, tortoise, python etc. **Our parents and grandparents brought these items to our *pira* and shared with all.** We ate python by simply boiling it in water.” (*An elderly man*)

“When we had enough in the forest, we shared with others. **Now, we don’t have anything.** We buy everything from shops”. (*An elderly couple*)

“We have eaten enough meat, honey and *thenpullai* (larve of honeybee). **Our parents were healthier than us.** They could lift a big bundle of fire-wood, but we can’t even lift a small bundle”. (*An elderly woman*)

The elders are of the opinion that their parents and grandparents were much stronger and healthier. They believe that python flesh has curative power against rheumatism and dental complaints and their older generation seldom suffered from these ailments. While comparing themselves with their previous generation, all the informants complained about one or more ailments like body pain, loss of sight, back pain, chest pain, etc. (a medical examination⁴⁰ also revealed the poor nutritional status

⁴⁰ A medical examination of Aranadan population in 1999 (Survey: Taluk Hospital, Nilambur) shows that 80 per cent of them are afflicted with scabies. Leprosy is detected among a couple of them. Jaundice, whooping cough, mumps and respiratory troubles are reported. Nutritional

of the community members). Even though the elders frequently complained about their weak health, they are seldom idle. They collect n.w.f.p, medicinal plants and fire-wood, and transact them with local contractors for meagre amounts. The lion's share of their earnings is spent on alcohol. Both Aranadan males and females in drunken state staggering through roads and public spaces has become a common sight.

Disputes are frequent in Aranadan settlements. Usually husbands and wives work together and the wage earned is spent in the nearby liquor shop. After reaching home, they quarrel with each other. Some times, there are instances, where a quarrel leads to the breaking down of the relationship altogether. In such cases, no elders come forward as mediators, as they feel that youngsters seldom listen to them or obey them. Moreover, they are afraid of the younger males who even dare to attack them. While I was staying in the Aranadan colony, one night I witnessed a quarrel between an elderly woman and her sister's son. The sister's son, who was addicted to alcohol at that time, got angry and threw a big piece of fire-wood towards his mother's sister and she sustained a head injury and was admitted to the hospital. But the young man did not repent or take any effort to make amends with his mother's sister. It is also observed that the absence of social control mechanism has also affected the family life of this community.

The informants said that the Aranadan were endogamous and their elderly people played a major role in arranging marriages⁴¹. The Aranadan family is basically

deficiency is high among children and women. According to the local Primary Health Centre, health condition of the lactating mother and child is also very poor.

⁴¹ Marriage is arranged only after the attainment of puberty. Arranged marriage is customary. Parents find out a suitable girl for their son. If he likes the girl and vice-versa, they fix the marriage on a suitable day. Marriage takes place at the bride's residence during night. Groom's party reaches the bride's house at dusk. In front of the people gathered, the groom hands over bride price to the bride's father, which these days is above Rs.50/-. Groom also presents clothes to the bride. The most important part of the marriage is tying of a red cloth by the groom around the waist of the girl, which symbolises that she is married. This marks the consummation of the marriage. Food is given to the groom and bride in a single plate. They put in each other's mouth, morsels of food, as if feeding each other. After this ritual feeding, food is served to all. Groom's party spends that night at the bride's residence and the very next day leaves the place with the bride. Now-a-days the ceremonies connected with marriage are seldom observed. Ceremonies connected with marriage are not observed when a non-Aranadan marries an Aranadan. Rest of

monogamous and marriage by exchange was the common practice. Marital alliances with a father and his step-daughter and a woman with her deceased daughter's husband are noticed. Elderly men and women living with younger spouses are common. But these kinds of marital ties do not ensure old age security for the Aranadan, as there occur frequent desertions and remarriages resulting in serial monogamy. The following case studies give a brief picture of the marital history and way of life of a few elders:

A widow (no issues, living alone):

“Soon after my *therandukalyanam* (puberty ceremony), my parents arranged my marriage with my *chukkan* (mother's sister's son), who was much elder to me. He was a drunkard and used to beat me. So, I deserted him and came back to my parent's place, a month after our marriage. A couple of years later, another man (a non-Arandan) came into my life, but he used to quarrel with my family members. One day after a big fight he left the place and never came back. The next two men who I lived with were also non-Arandan. The third man left me after few months and the fourth man committed suicide hardly six months after our marriage. I have no children and I live on my own by transacting medicinal plants and fire-wood. I have back pain, chest pain and slight loss of eye sight too. My sisters and their children are staying next to my house. **But nobody takes care of me. I feel lonely** [*weeping*].”

Elderly woman(separated from her spouse, resides with her daughter and grandson):

“I was first married to my *chukkan* (mother's brother's son). The marriage was arranged by my *aliyan* (sister's husband). But a few months later he (the first husband) started living with another woman and deserted me. A few months later, my neighbour (a Christian by religion) threatened me and forced me into a relationship. When his family members came to know I was pregnant, they asked me to abort the baby, but I refused. You know, they even tried to kill me by giving poison. But I did not give up. I suffered

the society comes to know about such marriages only when two individuals start living together as husband and wife.

a lot in my life. When my daughter was six years old, I married a man, who came here as a forest labourer. He was much younger than me. Once his work was over, he too left me. Now, I live with my daughter and grandson.”

Elderly woman (separated from her spouse, living alone):

“I was married to my *annan*-half-brother (step-mother’s son), soon after my *therandukalyanam* (puberty ceremony). He was much elder to me and I lived with him for almost three years. I deserted him when I came to know that I could not bear children from him (The man had a vasectomy⁴² prior to his marriage). A few months later, I met another man (a Muslim), who came here for construction work. He stayed with me for almost two years and I had a daughter by him. When his work was over he left the place. A few months later, another man came into my life and he too left me soon after I gave birth to my son. Now, my daughter is married and living with her children. My son lives in another house. I am living alone and subsist by n.w.f.p and medicinal plants collection. Our children are more interested in wage labour. They earn well, but spend more on alcohol. **They don’t care for us.**”

An elderly man (separated from spouse, living alone):

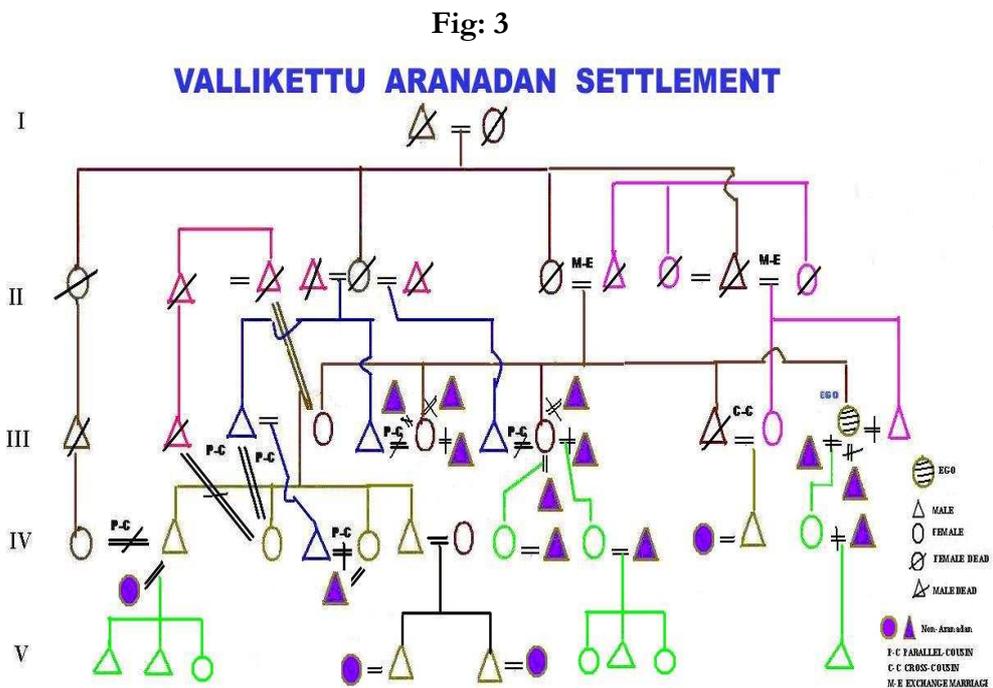
“ I married three Aranadan women. My first marriage was arranged by the *chemmakkearan*, but she passed away a few years after marriage. The second wife left me a few months after marriage and started living with another Aranadan. My third wife (a widow, married twice before she married this man) quarrelled with me and she too left. My son married a non-Aranadan. My daughter also married a man of her own choice. We obeyed and looked after our parents. But our children seldom consult us. My son and his family are living in this same colony. But they seldom take care of

⁴² During 1970s vasectomy was popular and a number of acceptors were reported among the elderly males. A few unmarried males have also undergone vasectomy. A survey taken in 1995 (Kakkoth, 2001) showed that there were 13 married females who adopted permanent measures for limiting family size. Intensive campaigns coupled with cash incentives are luring the Aranadan to queue up for undergoing vasectomy or laparoscopy.

me. I have pain all over my body and I am gradually losing my eye sight and hearing too. **I am alone and weak. If I fall sick, no one will take care of me. I wish I could die early.**”

b. Inter-cultural Environment

The neighbourhood population of the Aranadan colonies is constitutes Muslims, Christians and Hindus. The Hindus include various castes such as Nair, Ezhava, Cheruman, Kalladi, Kanakkan etc. Tribes viz., Paniyan, Kuruman, Kattunaicken and Pathinaicken also live close to them.



A genealogical analysis of five generations (Fig.3) reveals that the ascending generations (I & II) of the informants (III) were endogamous. Marriages with non-Aranadan have taken place in the colonies where the Aranadan had constant interaction with non-Aranadan. Cherupuzha-Vallikettu colony and Kottupara colony are the examples of this. Moreover, Vallikettu colony is located near the Nedunkayam⁴³ tourist spot of Nilambur. In this colony, at the time of study there were six couples and it is noted that in the case of five couples, one of the spouses is a non-Aranadan.

⁴³ Nedunkayam, noted for its rich natural beauty, is situated 3km away from the Vallikettu Aranadan settlement. Nilambur (including Nedunkayam) has been selected for developing as Kerala’s second eco-tourism destination.

The elderly people told me that their intra-community interaction was more while they lived as an endogamous group.

“You know, while we married Aranadan, we used to go to other *chemmam*. we looked after our mother’s elder sister while she was sick. We also treated our elder sister and her husband” (*A widow and an elderly woman*).

The Aranadan also have interactions with various institutions like Forest department, Integrated Tribal Development Project (ITDP), educational institutions, Tribal Co-operative Society, health department etc. Although there is an ayurveda dispensary at Vallikettu colony, the Aranadan prefer to go to the government hospital at Nilambur. With regards to education, though all the informants had registered at the local school during the 1970s, they dropped out without completing their schooling. But they are willing to send their grandchildren to school, as they feel that their children will get better jobs⁴⁴ in the future.

4. Spiritual Environment: Beliefs and Rituals

The Aranadan believe in ancestral spirits and usually elderly males in a hamlet/settlement keep certain household deities [such as *aluroopam* (human figurine)] and sacred objects [like *kudamani* (bronze bell) and *chilambu* (anklet with bells)] covered in a loin cloth in a corner of their hut. Its possession is hereditary and is taken with them, whenever they shift their residence. In addition to these deities, they worship other deities like *thamburatti*, *malachi daivam*, *kol theyyam* and certain Hindu Gods and Goddesses.

The Aranadan believe that illness is caused by the wrath of these deities and the eldest male member (earlier, the *chemmakkaran*), of the hamlet is first consulted for treatment, who conducts the religious diagnosis called *nalivekkal*.⁴⁵ They believe that

⁴⁴ Two Aranadan females from Vallikettu colony are employed; one as a school teacher and the other as a forest guard.

⁴⁵ This religious diagnosis is usually conducted at night and a patient’s presence is not essential. The person performing *nalivekkal* takes three or four *kudamani* (bronze bell) in a *kunthamuram*, (winnowing basket), jerks it and chants to invoke their ancestors and Goddess *Thamburatti*.

all those in their community who died before them have become their *muthappan* (ancestors) and will communicate with them through the performer of the *nalivekkal*. The elders are not worried about their death, but are more concerned about the unnatural death of youngsters. Hence, even though the community members visit hospitals for treatment, if their children or grandchildren fall sick, the elderly perform *nalivekkal* together with being treated by modern medicine as they believe that their ancestors will take care of them. Out of eight elderly, currently only two people know how to perform this diagnosis. Interestingly, one is an elderly woman. She told me that *nalivekkal* is usually performed by males, but she learned it from her husband. She also added that her son is not interested in learning this. I have witnessed this woman performing *nalivekkal* for her son, when he fell from a coconut tree while plucking coconut for a non-tribal landlord. *Nalivekkal* begins like this:

“*Envettam velicham kayithu thanthu*
Enee ponnalo, pothukkalo kattilo,
mannilo, theno, meeno, chavalo, venniyo, korano
thedi chuttu thiju vellam kudith pallam niranth vannoli
Nam nimme kondu oru koyappamundakki tharikila
Deenam kuzhakku vilachilu undengi nan keyth tharum,
Athungu kejanda; nan keyth pilathitharam”

(The light of my life has gone. You fill your stomach with roots, tubers, honey or fish from forest and drink water. I am here for you. Whenever you fall sick, I will treat you. Don't cry, I will look after you).

The elderly said that they invoke their *muthappan* and *thamburatti* through *nalivekkal* and they believe that their ancestors will look after them. They add that they had a revered place called Kareeri near Thamburattikallu, Nilambur taluk and this place is considered as the abode of the *thamburatti*. In the past, every year during the months of *Kumbam-Meenam* (March-April) they used to go there and make offerings to the *thamburatti*. They remember:

After sometime he gets possessed by the deity and spells out the reasons for the cause of the illness and its remedy. The patient, when he/she recovers has to give an *andunercha* (annual offering) to the *Thamburatti*. The offerings include rice, betel leaves, tobacco, lime and beaten rice.

“During those times all Aranadan assembled for the occasion and the rituals were officiated by the *chemmakkaran* of the local group. At the end of the ceremony our ancestors spoke through him. Now, we seldom go there, and Moreover, we have no *chemmakkaran* to perform such rituals”.

The elders feel that their children and grandchildren are not interested in any of their rituals. The role played in the past by the elderly in naming (a child is named after by its paternal or maternal grandparents) and first cereal feeding of a new born is currently replaced by temple priests. *Attamvaiju*, a ritual associated with death, just after burial, to make sure that the soul of the dead is pleased with the behaviour of the living ones, is rarely performed. It is observed that almost ninety-five per cent of the younger generation started worshiping local Hindu deities.⁴⁶ Though elders too visit temples, their belief in their ancestors are found to be stronger.

“You know, I suffered a lot in my life. I am still suffering. My daughter has a better job and people are asking me why don’t you move from here and live somewhere better? But I don’t like to move from here. It is true that our youngsters are behaving very rudely. The money they earned is spent on alcohol and create problems in the colony at nights. Yes, I know that this is not a good place to live. We suffer much pain in living here, yet I don’t want to leave this place. You know, our *mutbappanmar* (ancestors) are lying below this earth. They are here. **I still remember my jamma’s (grand mother) words- “Don’t go anywhere from here, we will be here and we will look after you’. So I can’t go anywhere from here.”**
(*An elderly woman*)

“ Last time when I got fever, I went to see a doctor at the Govt. hospital. Since he was late, I sat there for quite a long time and started talking with a

⁴⁶ Chemmanthitta temple at Karulai, which is dedicated to Goddess Bhagavathi, is a favourite shrine for the Aranadan. During *Nilambur pattu*, the festival of *Vettakorumakan* deity at Nilambur town, the Aranadan visit the temple. It may be noted that the Aranadan were treated as untouchables and considered as a despicable group in the past and temple entry was denied to them. The Aranadan males show great interest in undertaking pilgrimage to Sabarimala Lord Ayyappa temple. However, they are ignorant about characters in Hindu mythology, sacred scriptures, Gods and Goddesses. Recently they have started visiting a local church too. It is told that a few Aranadan men embraced Islam earlier.

woman who was sitting besides me. When she came to know that I am alone and suffering a lot, she told me that there are homes for people like me and there I can stay and will get better food, medicine and care. But I don't want to go anywhere from here. **Our *muthappanmar* are here and I cannot leave them.** (*A widow*)

Though the Aranadan elders are aware of old age homes, they prefer to live in their own places (even if they live alone) as they strongly believe that their ancestors will look after them.

V

COMPARATIVE ANALYSIS & EMERGING THEORETICAL MODEL

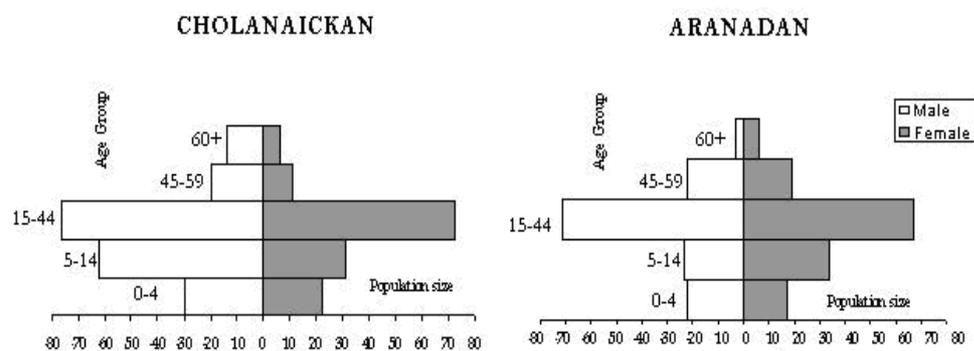
“Aging takes place within a social context. At each phase of the lifecycle, the individual belongs to a variety of kinship and social groups all of which bring interactions and relationships with family, friends and neighbours. The extent to which an older person is enmeshed within a social network of kin, friends and neighbours will greatly affect their experience of aging” (Victor, 1987: 213). As far as the forest dependant communities like the Cholanaickan and the Aranadan are concerned, aging experiences of elders are not only influenced by their family, kin and neighbours (socio-cultural environment), but also by their physical and spiritual environments as well. An individual's interaction with his/her environment in terms of the physical, socio-cultural and spiritual cannot be viewed discretely as these aspects are perpetually interlinked. Therefore, the analyses of aging experiences must also aim to address these three aspects not as discrete entities but as overlapping and interlinked elements. What follows in this section is a cross-cultural analysis of personal characteristics and aging experiences of the Cholanaickan and the Aranadan in their different environments (physical, socio-cultural and spiritual), leading to an emerging theoretical model and finally to the conclusion.

1. Personal Characteristics: Age, sex, health, marital status

As mentioned in the beginning of this paper, both the Cholanaickan and the Aranadan do not have the concept of ‘old age’ based on chronology, which is often used as a criteria for ‘old age’ in many other societies. Though they do not measure

their ages or remember birthdays, they are aware of their relative age, of the categories and activities appropriate to their contemporaries. Thus, based on relative age (generation), 27 people (17 Cholanaickan and 10 Aranadan) belonging to the category of grandparents or great grandparents from the area of study were selected as informants. Amongst the Cholanaickan at the time of study, there was a couple who belonged to the category of *dhodathan* and *dhodaive* (great grandparents). However, in the case of the Aranadan, three elderly women did not have any issues, but they were called *noothi* (grandmother) by their sister's grandchildren. Of these 27 elders (10 males and 17 females), there were 17 (8 males and 9 females) Cholanaickan and 10 (2 males and 8 females) Aranadan. Marital status of the informants from the area of study shows that among the Cholanaickan there were seven couples, a widower and two widows; whereas in the case of the Aranadan, there was only one couple, two widows and the remaining six were separated from their spouses.

Fig.4
POPULATION PYRAMID



The total population of the Cholanaickan and the Aranadan are 347 and 284 respectively (Survey: 2007). The population pyramid (Fig.4) reveals that the percentage of population above 60 years among the Aranadan (3%) is less compared to the Cholanaickan (6%), Kerala (10%) and India (6.9%). While the proportion of the Cholanaickan population (6%) above 60 years is closer to the national average (6.7%), and the Aranadan population above 60 years is only 3%. Further, the morbidity and mortality rates reported amongst the Aranadan are higher. Even though death owing to old age is less among these communities, the crude death rate (CDR) of the

Aranadan (10 per 1000) is higher than the State (6 per 1000) and national level (8 per 1000). However, the CDR amongst the Cholanaickan is 3 per 1000. As far as the Aranadan is concerned, higher number of unnatural deaths (36 - within a span of 15 years i.e., 1992-2007) owing to heart attack, cancer, accident murder, suicide etc., among the younger population, show low life expectancy of the population.

Irrespective of the sex, almost all informants reported one or more kinds of ailments like body pain, back pain, slight loss of eye sight, hearing impairment, etc. The Aranadan elders frequently complained on their declining health status and it is observed that the Aranadan have more health problems than that of the Cholanaickan. This can be attributed to the changed subsistence environment of this community and the resultant changes in their way of life and food habits.

2. Physical Environment

An analysis of the aging experience of the elders among the Cholanaickan and the Aranadan with their physical environment gives a contrasting picture. The Cholanaickan and the Aranadan live in distinct habitats. The Cholanaickan live in the wet evergreen forest of Nilambur (20-25 km away from the nearest town, Karulai) with relatively minimal contact with outsiders, whereas the Aranadan reside in resettled colonies, which are located in the marginal areas of forests (2-5 km away from Karulai), in the midst of non-tribes. Both these communities depend largely on the forest for their livelihood and can be included into the category of immediate-return⁴⁷ (Woodburn, 1982) as they hunt or gather wild roots and tubers with simple implements and eat the food obtained the same day or casually over the days that follow.

For the Cholanaickan, their habitat is bountiful with various flora and fauna and elders seldom find difficulty in collecting forest resources for their livelihood. The

⁴⁷ "Immediate-return systems have the following characteristics. People obtain a direct and immediate return from their labour. They go out hunting or gathering and eat food obtained the same day or casually over the days that follow. Food is neither elaborately processed nor stored. They use relatively simple, portable, utilitarian, easily acquired, replaceable tools and weapons made with real skill but not involving a great deal of labour" (Woodburn, 1982 : 432).

elderly Cholanaickan have vast knowledge about the forest ecosystem, availability of various resources in different seasons, movement and behaviour of animals, etc. Statements such as “*I have back pain and I feel loss of my eye sight ... the forest has enough for us,*” “*I have ailments, but I don’t care. As long as the forest is here I don’t worry*” and “*I get enough from the forest*” reveal that the Cholanaickan (especially male elders) value their economic independence. Even if they have health problems, they feel that their subsistence environment provides enough resources for them so that they need not depend on their children for their livelihood.

When compared to elderly females, males have more contact with the outside world and they are aware of changes occurring in their physical environment owing to the construction of roads, houses, plantation activities etc. and also by the interference of non-tribes for resource exploitation. Their hunting activities are lessened or restricted by forest laws, and foraging and fishing activities are occasionally challenged by non-tribes. Thus, it is observed that though the Cholanaickan still wield control over their *chemmam* resources and follow *chemmam* rights within their territory, they feel slightly challenged by the intrusion of other people in their physical environment. In other words, the Cholanaickan elderly feel that certain aspects of their physical environment supportive to them, whereas certain other aspects are being slightly challenged.

Compared to the Cholanaickan, the physical environment of the Aranadan has been totally changed owing to the conversion of their habitat (lower valley forests) into monoculture teak and rubber plantations and the resultant non-tribal migration, deforestation and various other development activities. Prior to resettlement in the 1970s, the Aranadan were foragers of the deciduous forests (covering an area of 265.608sq.km), rich in edible roots, tubers, medicinal herbs, mushrooms and various game including python. It is observed that during the span of 30 years (1971-2001) the population in Karulai panchayath (where the majority of the Aranadan live) alone has increased 338% and the total number of households has been increased to 411%⁴⁸. As a result, the Aranadan lost control over the resources of their area and are now confined

⁴⁸ Source: Census of India 1971 & 1991.

to colonies (2-3 acres) in the midst of non-tribes. Changes in the physical environment have shattered the economic base of the Aranadan. Though the Aranadan elders still do small scale hunting and gathering, their competition with other communities for subsistence has become high as evidenced from the following responses like, “*Now, nothing is here. I spent a whole day and didn’t get even a puchan (mushroom),*” “*Earlier, everything was available here. But now, I find difficulty in collecting even green leaves for food, as these items are also used by our neighbours (non-tribes),*” “*At that time we used to get python at least once in a week. But now, we don’t get any*” and “*....now, I have to go further inside the forest and spend more time in collection.*” Both the elderly males and females reported that even though they spend more time in the collection of medicinal plants, they get only very meagre amount in transaction, which does not allow them to make both ends meet. Thus, the elderly Aranadan feel their subsistence environment is being challenged or unsupportive to them.

3. Socio-cultural environment

Comparative analysis of the socio-cultural environment of the Cholanaickan and the Aranadan also illustrates their differences. Analyses show that the Cholanaickan still maintain strong family and kinship ties. Widows and widowers live with their primary kin. Elderly couples either live with their children or live separately. If they live separately, their huts are always very close to their children’s hut. Elders or aged among the Cholanaickan are neither discarded nor segregated as an age group. If physically capable, they remain active in their economic activities throughout their life; there is no retirement from work and no specific responsibility is given to older people. The old and sick are usually taken care of by females as they spend most of their time in the hamlet and are always given a share of food. Elderly women are seldom worried about their life or food. Responses like “*..... My son brings me food. Sometimes others share their food with me. I am fine*” and “*Even if I don’t go(to the forest), I get enough food from others?*” reveal this fact. As Marshall (1977) has indicated, the concrete expression of solidarity among kin is through this sharing of resources, especially of food.

While the elderly women rely occasionally on their family members, elderly men value autonomy. Chipewyan men, according to Sharp (1981), also go to tremendous lengths to remain active and therefore delay decrepitude, and they view 'retirement' from hunting as an end of their life as a "complete adult". Ingold (1987) judged that "in most hunting-gathering societies, a supreme value is placed upon the principles of individual autonomy" and this is true in the case of the Cholanaickan men. Statements such as *"I am quite alright and still go to the forest. See, I am strong, healthy and happy. We, the Cholanaickan are like that. We do our job as long as we can."* and *"I am living with my daughter. They give me food, but I still go to the forest"* disclose that the Cholanaickan value individual autonomy, even while their family and kinship environments are supportive of them.

Social tension owing to quarrels and alcoholism are very rare among the Cholanaickan. "The communication between the people living close by is direct and at the same time they share the stresses, strains and pleasures of life together" (Bhanu, 1989: 97).

The relationship between grandparents and grandchildren is observed to be warm and nurturing. Bhanu writes:

"The Cholanaickan are very mild and peace loving people. They do not even abuse their children for any wrong they commit. If they commit any wrong, it is taken easily and the elders very patiently and politely teach the young ones and advise them not to repeat it again". (Bhanu, 1989: 96).

The elderly Cholanaickan are found happy to be with their grandchildren, who provide a helping hand to them in running their households (fetching water, collecting fire-wood, fishing, gathering tubers etc.). Elderly women seeking the services of their grandchildren are also noticed in many societies (Sharp, 1981). Thus, communal living and socio-cultural life of the Cholanaickan offers a supportive environment to the elders.

Some times, when the environment is being challenged, the elderly may knowingly or unknowingly try to make the changing environment more conducive to their own lives. In other words, like other human beings, old people are also not passive actors in a system determined by outside influences, but create a condition of their own existence within the limits established by factors they cannot control (Amoss and Harrell, 1981) even though they may lose some rewards and valued roles (Foner, 1984: 203). For, instance, the socio-cultural life of the Cholanaickan is influenced by the interaction with the Pathinaicken and also by the activities of various institutions (forest department, tribal development department, research institutes etc.) in the name of educational programmes, empowerment, health camps, etc. The elderly Cholanaickan not only make marital ties with Pathinaicken women (there are fewer women among the Cholanaickan) but have also started participating in the Pathinaickan rituals. The interaction with various institutions has resulted in Cholanaickan elders taking the role of tourist guides, participating in forest management programmes and attending workshops and training programmes, where their indigenous knowledge and skill in basketry is acknowledged. Here, by actively adapting with the changing environment, the Cholanaickan elders make their challenging inter-cultural environment supportive of them.

Like the Cholanaickan, the Aranadan also had their own *chemmam* (territorial organisation) and *chemmakkaran*. Though they do not maintain stable marital ties, the copious subsistence environment, kin network and communal sharing of food provided a comfortable socio-cultural environment to the aged. “It is a kin network connecting all sorts of genealogical directions and through many different kin types for sharing, residence, work efforts and other forms of interdependence. Difficulties develop when that network shrinks, kin are not available, abilities to exchange decline, and resource become problematic” (Fry, 2003: 325).

In the case of the Aranadan, when the community was made to settle down in Government colonies and their foraging areas were occupied by non-tribes, they lost control over the resources of the area, which resulted in the declining status of the *chemmakkaran* and thereby weakening of the social control mechanism as well. The

majority of the youngsters are addicted to alcohol and frequent quarrels or disputes are common in Aranadan colonies. Social offences are not questioned by the elders or functionaries. The elderly are seldom respected by the youngsters and their knowledge is rarely acknowledged. A similar situation has been reported amongst the Birhor tribe of Madhya Pradesh in India. The Bihors are traditionally a nomadic tribe and were gradually persuaded by government agencies to lead a settled life. Old people were traditionally considered as mentally matured, experienced and knowledgeable as long as they continue to be regulated by forest ecology. Younger people sought guidance from the elders in various economic activities, nature-nurture relationship and for spiritual powers, etc. However, when the community started leading a settled life, the very old persons started facing problems with regards to adjustments to changing roles and status, loneliness and perceived emptiness (Mukherjee, 1997). In many societies the advent of wage labour and money economy has lessened old people's economic dominance because young people have greater access to a wider variety of relatively lucrative economic roles than in the past (Foner, 1984: 201). In pre-literate societies, older people are considered to be the repositories of knowledge (Biesele, 1981; Collings, 2001; Foner, 1985; Fry, 2003) but being at the apex of the age hierarchy does not guarantee a secure old age (Fry, 2003: 325). It is true in the case of the Aranadan elders.

Contact with non-Aranadan neighbours has considerably changed the way of life of the Aranadan. Compared to youngsters, the Aranadan elders still pursue food gathering and they have to compete with non-tribes for their subsistence. In descending generations, marital ties with non-tribes have become quite frequent and these marital ties are transient in nature. The influence of neighbouring culture has been reflected in the social life of the Aranadan. Social gatherings are few and life cycle rituals are rarely practised. Though their children and families reside nearby, elders are not taken care of by their children, even if they fall sick. Since they have to find out their own food, the elders are concerned about their health, which is reflected in their responses - *"I have back pain, my sisters and their children are staying next to my house. But nobody takes care of me"*, *"Our childrenThey don't care for us"* and *"I am alone and weak. If I fall sick, no one will take care of me. I wish I could die early."*

Thus, it is observed that the elderly, especially those with weak health, feel lonely and neglected and experience challenging or unsupportive intra-cultural and inter-cultural environments.

4. Spiritual environment

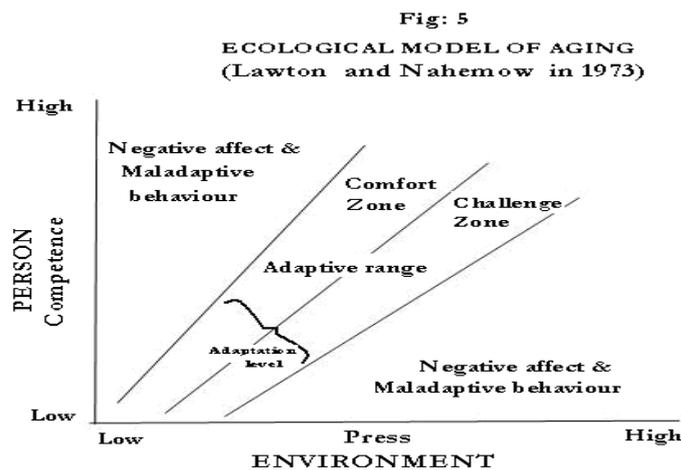
There are similarities in the aging experiences of the Cholanaickan and the Aranadan elders in terms of spiritual environment. For both the Cholanaickan and the Aranadan elders, though they live in distinct physical environment, their habitat is more than just the physical setting in which they live; both groups have a kincentric⁴⁹ (Salmon, 2000; Turner, 2005) approach to their ecosystem. They believe that their ancestors are always in their vicinity and will look after the community members whenever they face any difficult situation. Statements such as “... *this is my ancestors' forest and I should die here*”, “*I can't leave this place.... our ancestors are here,*” “*My ancestors are here, I cannot leave them,*” etc., show their strong attachment with their spiritual environment through their physical environment. In other words, they view themselves as an integral part of the life and place within which they live. Similar observation has been made among other hunter-gatherers (Turnbull, 1965; Rapaport, 1968; Vayda, 1969; Endicott, 1979; Bird-David, 1990).

Both the Cholanaickan and the Aranadan believe that illness is caused by the displeasure of their deities and ill persons usually approach the elderly for ritual treatment. Thus, ritual knowledge in healing gives a supportive environment to the elderly. When compared to the Aranadan, the Cholanaickan have more number of elderly males, who still conduct ritual healing even though they make use of modern medical facilities. In the case of Aranadan, when elderly males were few or unavailable to perform *nalivekkal* (ritual treatment), elderly females started treating community members. Here, by not allowing a ritual practice to die (even though by changing the very structure of ritual leadership), the elderly try to maintain their spiritual environment.

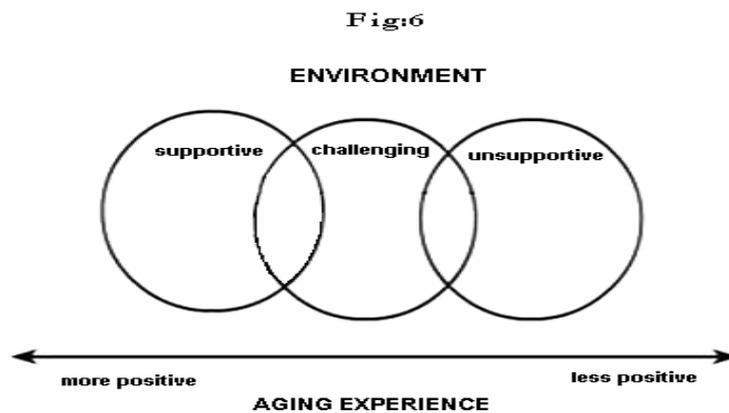
⁴⁹ Salmon's (2000) concept of kincentric ecology pertains to the manner in which indigenous people view themselves as part of an extended ecological family that shares ancestry and origins. It is an awareness that life in any environment is viable only when humans view the life surrounding them as kin. Turner (2005:93) describes kincentric approach to nature whereby environmental features and entities are imbued with humanness and are all related to us and to each other.

5. Ecological Model of Aging: A New Approach

The Ecological model of aging or Ecological theory of aging proposed by Lawton and Nahemow (Lawton and Nahemow, 1973; Lawton, 1986; Nahemow, 2000) explores the interplay between individuals and their environment with a central concept of adaptation level. The primary thesis is that human behaviour and function result from the competencies of the individual, demands or 'press' of the environment and the interaction or adaptation of the person to the environment. Lawton and Nahemow captured these processes by proposing Competence-Press framework which was graphically portrayed in a model (Fig: 5).



In this model, the Y-axis refers to a person's level of competence (high to low) and the X-axis represent environment press (from low to high). Lawton and Nahemow have also portrayed a band, cutting through the graphic diagonally from left to right, reflecting the 'zone of adaptation' (with 'comfort zone' and 'challenge zone') and adaptation range. Beyond these zones, a person experience maladaptive behaviour. This model applied in different disciplines and tested in various institutional settings (like old age homes), built environments (housing, transportation and over all pattern of land use), etc. (Carp, 1987, Nahemow, 2000) than community settings.



The ecological model of aging that emerged from my analysis (Fig: 6) is based on the theoretical underpinning of the model proposed by Lawton and Nahemow. But, instead of the interaction between personal competence and environmental press (proposed in Lawton’s model), this study focused on personal characteristics (age, sex, health and marital status) of the elderly and their aging experiences with different environments (physical, socio-cultural and spiritual).

The model consists of three overlapping circles, representing different levels of environments such as supportive, challenging and unsupportive. The arrow in both directions represents the range of aging experience in accordance with the levels of environments. This ecological model is intended to illustrate the nature of aging experiences of the tribal elderly with their environments like physical, socio-cultural and spiritual, in which they live or interact with.

CONCLUSION

I have examined the aging experiences of tribal elderly living in different ecosystems in the context of their changing environments such as physical, socio-cultural and spiritual. The study showed that the aging experiences of Cholanaickan and Aranadan give a contrasting picture. More interestingly, it is observed that there is a sex difference in the aging experience among the Cholanaickan.

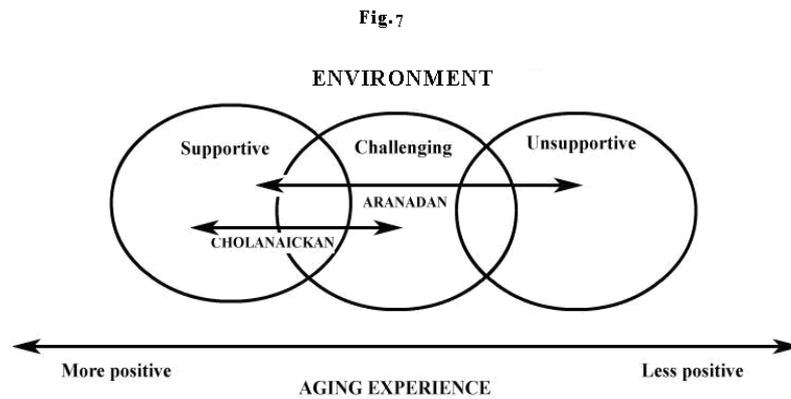
All Cholanaickan elderly women live with their primary kin. Though most of them have one or other kinds of ailments, they feel comfortable within their social system. They follow more or less the same role which their ascending generations had pursued.

They spend most of the day in their hamlets taking care of children, helping other women in cooking and at times gathering and basket making. Elderly women are seldom neglected and are always given a share of food by their hamlet people. Even though they are aware of the stage of *joononthu* (death) where ‘nothing can be done’, they seldom worry about being ‘old’ and ‘dying’ as they believe that they would be looked after by their kin. **For, Cholanaickan elderly women, growing old is ‘care giving’ and ‘care taking’**, in other words, they feel their subsistence, family, kinship and spiritual environments are supportive to them.

Cholanaickan elderly men too live with their family. Unlike women, men have greater social interactions with the outside world and as a result they experience various changes in their physical and socio-cultural environments and they feel certain elements in these environment are less supportive and more challenging. They also try to adapt to the changes and make the challenging environment supportive to them. Their approach to the forest and spiritual environment is kincentric (Salmon,2000; Turner, 2005) and view them as economically and psychologically supportive ‘giving’ and ‘reciprocating’ environments (Bird-David : 1991). The elderly are seldom neglected in Cholanaickan society. Comparatively peaceful life and longevity of Cholanaickan may be attributed to their supportive family, kinship, subsistence and spiritual environments. Unlike women, **elderly Cholanaickan men value economic independence.**

In the case of Aranadan, gradual change from their subsistence environment minimized the interdependence between man and nature. Their economic base has been shattered as a result of the conversion of their foraging area into rubber and teak plantations. Added to this, pressure on forest resources increased owing to encroachment of their foraging area by non-tribes. Thus, they feel their subsistence environment is being challenged. When they lost their foraging areas and were confined to colonies, the concept of *chemmam* as well as the role of *chemmakaran* lost their significance. Absence of a social control mechanism added with alien culture contact weakened the supportive environment of family and kinship. Sharing of traditional knowledge and food have also become insignificant in the changed environment. Though the elders find consolation in their spiritual environment, religious activities for social cohesion is seldom

performed and they feel alone and deserted. Thus, it is observed that **irrespective of sex, the elderly Aranadan are worried about their health status and feel growing older as less positive and as a struggle.**



Thus, with regard to person-environment dynamics (Fig.7), it may be concluded that when environments (physical, socio-cultural, spiritual) move from supportive towards challenging or unsupportive, the elderly experience aging as more positive to less positive, depending on the nature and type of environment in which they are exposed to or live in or interact with. The study also suggests that it is possible for a group or person to adapt to changing situations and to experience a positive aging by making a challenging or unsupportive environment into a supportive environment.

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